International Conference on
ENTERPRISE IN TRANSITION

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ENTERPRISE IN TRANSITION

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FOREWORD

As we near to the modern ages, the pluralist balance of different ideals and traditions we have witnessed in Western culture for most of the period since the Enlightenment seems to be breaking down, perhaps irretrievably. The long-term survival of cohesive communities, effective government power and fruitful social cooperation has been called into question by the growing triumph of globalisation and free-market deregulation, and by the spreading culture of rampant individualism. (Bronk, R., 1998)

The Seventh International Conference "Enterprise in Transition" organized by the Faculty of Economics, University of Split presents 109 papers by more than 150 authors from 24 countries on four continents.

The issues discussed at the Conference are divided into three main themes:
- Towards the enhancement of social responsibility and business ethics: modern theory and practice;
- Challenges for business sector development;
- New insights for economics and political economy.

All the three themes are currently the focal points of interest in economics causing numerous discussions and disputes. Even though it has been lasting for over a decade and a half, the transition process is continually opening new questions which require new research efforts looking for the answers that might have a chance to be unanimously accepted.

How it is possible to achieve a stronger social responsibility and business ethics in conditions of an increasingly spreading consumerism ideology and domination of big business guided by profit as the main principle of efficient entrepreneurship? The obvious discrepancy of these concepts may be seen as a barrier to effective solution mechanisms. Within the positive economics of the neo-classical type, settling these contradictions is impossible in principle. Therefore it seems that we need an interdisciplinary approach, an approach which will use the achievements of other social sciences. Large and expanding differences in development level between countries and within them, environmental threats to our vital resources such as global warming, as well as information, technological and cultural domination of global power centres are dramatically warning that policies proposed either by economics or by market cannot offer adequate solutions. Long ago Joan Robinson warned that *...the professional economist keeps up a smoke screen of "theorems", and "laws" and "pay-offs" that prevent questions such as that why the USA keeps an appreciable proportion of its population in perpetual ignorance and misery from being asked.* In her opinion this situation is inevitable: In every country educational institutions in general and universities in particular, are supported directly or indirectly by the established authorities and whether in Chicago or in Moscow, their first duty is to save pupils from contact with dangerous thoughts. Robinson's argument is still valid. Economic reasoning alone cannot offer a solution for any economic problem, for all involve political, social and human considerations that can not be reduced to *the lore of nicely calculated less and more*. What we need is a different habit of mind - to eschew fudging, to respect facts and to admit ignorance of what we do not know.

The above attitudes determine to some extent the other important topic session of this Conference devoted to the new views in economics and political economy. The discussion arising from the well-known Cambridge controversy needs to be continued and actualized. As

Joan Robinson argued the problem of capital measurement remains open: *"The student of economic theory is taught to write Q=f(L,C) where L is a quantity of labour, C a quantity of capital and Q a rate of output of commodities. He is instructed to assume all workers alike, and to measure L in man-hours of labour; he is told something about the index-number problem involved in choosing a unit of output; and then he is hurried up to the next question, in the hope that he will forget to ask in what units C is measured. Before ever he does ask, he has become a professor, and so sloppy habits of thought are handed on from one generation to the next".* I sincerely hope that the Conference presentations and discussions will address the question of scientific and professional responsibility for the problems surrounding us which may primarily be defined as economic-political problems.

Besides the expected scientific contribution, the Conference will offer an opportunity to its participants to socialize and continue building their relationships. The sea and sunshine at Bol will create an enticing setting for discourses of various kinds. May openness and friendship be the "trade mark" of this Conference to contribute to the realization of our mission which is welfare for people all around the world. Intellectual and critical vigour is what we need to try to come closer to desired changes.

Split, April 2007

Professor Zlatan Reić, PhD
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NEW THEORIES OF GROWTH AND INTERNATIONAL GOVERNANCE

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New theories of growth are already knocking on the door and will soon come into play. Keynes policy choices had been updated and better interpreted by the neo-classical school; Milton Friedman has been rather quickly forgotten; Solow and his school is now undergoing a metamorphosis towards new growth theories, in which the traditional, well-known equation of the equilibrium in internal and external markets and the function of production used in the university text books is under questioning, with the proposal of deep revision and integration. This presentation intends to focus on some aspects that are becoming challenging issues for economy, finance and governance in a transnational environment which is already prevailing over any former endowment of factors, output, institutional conditionality, business cycle, flows of capital, external exogenous variables.

We need some formal but simplified equations to show the results. The fact is that we are assisting, also in the research field, at the innovation effect of new quantitative tools and improved statistical methodologies. Also the set of data are more reliable for the majority of the countries world wide and in any case for the more relevant ones. Political and Social factors, through appropriate indexing and proxies, could approach the effective, real relevance of each single variable. Public and private choices, in this stage, are more and more supported by methodological and decision making instruments of analyses.

Let us start from the production function in the Solow model:

**Production function
in the Solow model:**

$$Y_t = K_t^{\alpha} \cdot (A_t \cdot L_t)^{1-\alpha}$$

It could easily become

**Production function in the
Mankiw/Romer/Weil model:**

$$Y_t = K_t^{\alpha} \cdot H_t^{\beta} \cdot (\widetilde{A}_t \cdot L_t)^{1-\alpha-\beta}$$

But soon afterwards we could arrive at the most recent new step forward taken by the Research Unit of the Deutsche Bank, and its Chief Economist Norbert Walter, where the equation becomes more close to the complexity but also to the correspondence of the process of growth nowadays:

**Production function
in *Formel-G*:**

$$Y_t = K_t^{\alpha} \cdot H_t^{\beta} \cdot (P_t \cdot \hat{A}_t \cdot L_t)^{1-\alpha-\beta}$$

I need to add some short explanations of the relevance of these crucial variables for growth, because particularly Europe, its transition countries and Asia's main players will soon face the conditionality of the many other variables that these incorporate and transform into the true drivers of the future developments, where the FDIs play a major role if well managed both by the investors and the hosting countries, a real business-government relations. I quote the analyses prepared by Stefan Bergheim, in a joint project with Jan Hofmann, Marco Neuhaus and Ingo Rollwagen of the Research Unit of the Deutsche Bank and a recent brain-storming with Gregorio De Felice, Chief Economist of the Italian Banca Intesa, one of the leading European banks.

FROM WISHFUL THINKING TO STRUCTURAL MODELS

The lacking aspects of the previous Growth theories were characterized by the absence of consistent quantitative and rigorous models. It is really from this need that the before mentioned researchers of the DB Chief Economist Unit moved their steps with the Foresight Model for Evaluating Long-term Growth-FORMEL-G new conceptual modelling approach. The outcome of their analyses, accompanied by a large econometric elaboration, represents a real tool for the applied macroeconomic and policy choices. Let's follow the crucial passage of the model. *Growth forecasts must have a solid theoretical foundation. The basis of most growth analyses is the neoclassical production function in which output Y is a function of labour input L, capital input K and the level of technology A (Solow residual; usually called "total factor productivity"). Growth decompositions divide actual growth into these three components. However, over the long-term, the sole driver of any growth of per capita output is the progress of technology A. It also is crucial for long-term increase in capital stock per*

capita. Therefore, forecasts of economic growth with the help of simple growth decompositions require more or less arbitrary assumptions on technological progress.

They do not explain the really interesting variable A, but bury it in an assumption. Therefore, simple growth decompositions are not suitable for forecasting. The often-assumed absolute convergence of income levels between countries (i.e. poor countries' GDP grows faster than that of rich countries) also lacks theoretical and empirical support. There is no automatism: higher income levels do not fall from heaven like manna but require hard work.

The GDP of a country only converges to the country-specific income level that is determined by that country's growth drivers. Therefore, any useful model of the future has to explain technological progress. This is easier said than done, however. Mankiw/Romer/Weil made a path-breaking contribution in 1992 by incorporating human capital H as a measure for the quality of labour input into the empirical growth analysis. Human capital describes a person's ability to produce output efficiently and to develop new products. This important additional variable helped significantly in explaining historic income differences across countries.

For empirical growth analysis, this has been a great step forward, but not yet fully satisfactory. Both the theoretical and empirical work of the last ten years has tried to model the remaining, unexplained share of technological change after human capital is taken into consideration. The objective is to explain economic growth as fully as possible in the model by incorporating a further policy variable P (or several variables).

Exogenous, unexplainable influences are to be minimised. The search for P has given rise to a flourishing literature dealing with the role of politics, institutions, knowledge and innovation. In their overview, Durlauf, Johnson and Temple (2004) identify 42 "growth theories" using a total of 102 variables – which may be combined in different variations. Although theory does not produce a clear conclusion regarding the "correct" growth model (the "correct" P), it helps us identify potential growth drivers. The decision as to which additional variables really have a statistically and economically significant link with growth will have to be based on econometric analysis.

We are assisting, it appears already very well established, to the blossoming of a third generation theory of Growth, as Paul Romer, its brilliant inspirer, describes in "The Concise Encyclopedia of Economics": "Economic growth occurs whenever people take resources and rearrange them in ways that are more valuable. A useful metaphor for production in an economy comes from the kitchen. To create valuable final products, we mix inexpensive ingredients together according to a recipe. The cooking one can do is limited by the supply of ingredients, and most cooking in the economy produces undesirable side effects. If economic growth could be achieved only by doing more and more of the same kind of cooking, we would eventually run out of raw materials and suffer from unacceptable levels of pollution and nuisance. Human history teaches us, however, that economic growth springs from better recipes, not just from more cooking. New recipes generally produce fewer unpleasant side effects and generate more economic value per unit of raw material".

Scholars and researcher are wondering if the so called "new theories of growths" are matured enough to be already defined as a "robust", testable frame for applied analyses and quantitative measurements and reliable forecasts. In other word, are we in front of the same wine into two different barrels or two different wines independently from the barrels we use.

Is than neo-classical theories suffering a fatal process of obsolescence in its applied capability to explain growth and world wide governance?

We might say that at least the new improvements grown over and around the formal Solow model and endogenously principles and approaches are still basic assumptions but take, for instance, the decreasing factors return or the absolute or conditional convergence postulate. For the factor return, we could take the example of technology. The decreasing of endogenous levels of this factor, on the base of the physic principle, is largely overcome by the extraordinary potentiality of innovation to continuously modify and up grade existing technologies, bringing equal to 1 or even more, the differential among performances of the same technologies in different time units: one semester, one year, one quarter, depending on the kind of industrial or services sectoral requirements. In other words, innovation that is produced firstly by human capital and higher research, keeps the levels of technological progress much higher than was previously imagined only twenty years ago. Comes back the Keynesian consideration that technologies are de facto more exogenous while innovation is the real, determinant endogenous factor.

Finally, regional approach intervenes to complete the picture of the new theories of growth. Even if in the drivers and cluster before mentioned I did not reserve a specific relevance to this aspect, the interrelation between the global dimension of the growth challenges and the regional optimal dimensions of its success stories is clear. The correlation between growth and regional dimension has been deeply analysed by Alberto Alesina and Dani Rodrik, in "Distributive Politics and Economic Growth", where the authors studied the relationship between politics and economic growth in a simple model of endogenous growth with distributive conflict among agents endowed with varying capital/labor shares. They establish several results regarding the factor ownership of the median individual and the level of taxation, redistribution, and growth. Policies that maximize growth are optimal only for a government that cares solely about pure "capitalists'" The greater the inequality of wealth and income, the higher the rate of taxation and the lower growth. The Authors present empirical results that show that inequality in land and income ownership is negatively correlated with subsequent economic growth. And even before, Olivier Jean Blanchard and Danny Quah in "The Dynamic Effects of Aggregate Demand and Supply Disturbances" examined the macroeconomic effects of Technology, Employment and the Business Cycle, wondering if the Technology Shocks explain aggregate fluctuations at international and regional level, as well as in Robert J. Barro and Silvana Tenreyro "Closed and Open Economy Models of Business Cycles with Marked Up and Sticky Prices".

CIVIL SOCIETY AND INSTITUTIONAL CHANGE: THE GREAT TRANSITION

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More than a decade after the start of economic and political reforms in the formerly communist countries, the economic and political outcomes are very diverse. On the one hand, the countries of Central Europe and the Baltics were able, for the most part, to stabilize their economies after a few years of output fall and to recover their pre-1989 output level. On the other hand, the countries of the former Soviet Union experienced a much more severe and protracted output fall and have not yet recovered their pre-transition output level, despite strong recent growth. Countries from former Yugoslavia are in a similar situation. The experience with political developments is similar. Some countries, mostly those in Central Europe and the Baltics, quickly introduced democracy and political freedom and stabilized their democracies. Former Yugoslavia went through a horrible war experience before some democratic stabilization could be observed. In contrast, most countries of the former Soviet Union went through a period of limited democratization but then drifted towards autocratic rule.

These massive divergences have been one of the prime subjects of the transition literature. There is by now a clear consensus that differences in economic policies alone (speed and sequencing of reforms, type of privatization policies, conduct of stabilization policies, etc..) cannot explain these divergences well and that differences in the institutional setups provide a better explanation (see e.g. Johnson, McMillan and Woodruff, 1999). However, how do we explain the differences in the institutional evolution in different countries? Taking institutions as exogenous cannot be a satisfactory answer as all transition countries have been undergoing rapid and profound institutional change following the end of communism.

Various explanations for the institutional divergence in Central and Eastern Europe have been proposed relying on geopolitical and accession effects. Surprisingly, a potentially important causal channel has been neglected, certainly in the economics literature: differences in civil society development prior to the fall of communism. An argument can indeed be made that civil society development prior to transition may explain important differences in institutional choices which in turn may have consequences on the economy and further institutional developments. In countries with a more active civil society, demand for democracy was certainly stronger than in countries where civil society developments were weaker. When communism collapsed, existing associations of citizens were more prepared to participate actively in the design of the new democracies and to make sure an adequate system of checks and balances was put in place. In contrast, in countries where citizens were less organized and

active, members from the former elite had more of a free hand to establish regimes that would allocate them to concentrate in their hands large powers in an unfettered way. A striking comparison that immediately comes to mind is that between Poland and Russia. Poland had seen the development of Solidarnosc, the famous trade union that organized not only strikes but also many political protests against the communist regime. Members of Solidarnosc played a very important role in the first free elections in Poland in 1989 and in the subsequent political and economic transition. The Catholic church remained very powerful in Poland during the decades of communism and many other associations developed that were independent from the communist regime and mostly opposed to it. Russia had its courageous dissidents like nuclear physicist Andrei Sakharov and many others but Russian civil society was weaker than in Poland. When communism collapsed after the failed putsch in 1992 in the Soviet Union, Eltsin and his entourage immediately seized power and there were no strong demands from citizen associations to engage in a large-scale process of constitutional design for Russia. The president of Russia concentrated strong powers in his hands without facing much protest apart from the former communists who had lost power. While the difference between Poland and Russia is indeed striking, it is a priori not clear whether it can be documented beyond anecdotal evidence or even generalized to all transition countries.

This is precisely what we attempt to do in this research (joint with L. Bruszt, N. Campos and J. Fidrmuc). We use a new, unique data set covering the period between the start of Glasnost and the fall of communism (i.e., from 1985 to 1989) for the 27 former centrally planned economies of Central and Eastern Europe and Central Asia. The data collected from the Open Society Archives in Budapest inform on various aspects of political opposition events. These events were reported by Radio Free Europe and other news sources that specialized in reporting on dissident activities. Our database contains quantitative as well as qualitative information on type of events (strike, demonstration, etc.), number of participants, motivation, and whether and how violently the government reacted. While these data obviously only measure very partially civil society developments, they nevertheless have several advantages. First of all, they measure some of the most relevant data relative to what we are interested in, namely the level of dissident activity. Indeed, we expect a stronger level of initial dissident activity to be associated with stronger citizen involvement in the shaping of the new democratic institutions and thus with stronger checks and balances. A second advantage of our data is that they make the cross-country comparison easier and more meaningful. Much of civil society development is country-specific and difficult to compare. Religious associations may be more developed in one country but in another it may be youth or sport associations and these are not directly comparable whereas levels of dissident activity can be more easily compared.

We find that political opposition before 1989 was much more intense in Central Europe than in the Soviet republics. This is true even for countries like Czechoslovakia where the regime was more repressive than in Poland or Hungary. Closely related to a lower level of dissident activity in the Former Soviet Union is a higher rate of repression of dissident activity. Not only the probability of government reaction was higher in the latter, but so was the probability that the government reaction was violent.

Differences in civil society development in the eighties play an important role in explaining whether the country adopts a parliamentary or a presidential regime.

Proceedings of the Seventh International Conference on Enterprise in Transition

THEME I

TOWARDS THE ENHANCEMENT OF SOCIAL RESPONSIBILITY AND BUSINESS ETHICS: MODERN THEORY AND PRACTICE

I-1

Stakeholder-oriented management and corporate social responsibility (CSR)

THE MULTIPLE CONSTITUENCY APPROACH TO SOCIALLY RESPONSIBLE HIGHER EDUCATION: THE CASE OF CROATIA

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Key words: *Higher education, Croatia, stakeholder management, multiple constituencies*

Abstract

This paper is based upon the assumption that the social responsibility of institutions within the system of higher education (HE) should be recognized by transparent and consistent treatment of all their stakeholders. In order to provide evidence(s) related to the socially responsible behavior of actors in the Croatian HE sector, the review of relevant theoretical background is provided and discussed. Seminal works and authors are used to: (a) establish the 'benchmarks' for the Croatian context and (b) define the empirical research framework required to investigate the main components of the 'best' socially responsible practice. The resulting discussion of empirical results is focused on the managerial practices of the contemporary Croatian HE institutions, as related to the 'subject-specific' orientation towards relevant individual/collective stakeholders as actors in the HE process(es).

1. BASIC DETERMINANTS OF THE STAKEHOLDER CONCEPT

The expression «stakeholder» is first mentioned in 1932, although the underlying concepts started evolving after the publishing of the seminal book *«Strategic Management: A Stakeholder Approach»[1]*, which positioned the stakeholder concept as a potential answer to the threats from the business environment of the 1980s. In this context, a company/organization has a wide range of responsibilities, which are represented by the legitimate interests of different stakeholders, which made it easy to associate it with the CSR (corporate social responsibility) concept as soon as it was introduced. However, the

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[1] Freeman, R. E.: **Strategic Management: A Stakeholder Approach**, 1984., as quoted in Friedman, A.L., Miles, S.: **Stakeholders: Theory and Practice**, Oxford University Press, 2006. p. X

descriptive precision, instrumental power and regulative values could be cited as significant strengths of the stakeholder theory, considering that[2]:

- It explains the manner in which managers and stakeholders really behave and the way they see their activities and roles **(descriptive);**
- It prescribes how managers should behave, if they want to improve their own interest i.e. interests of organization, generally seen as long-term profit maximization or maximization of value for stakeholders (**instrumental**);
- The theory relies on the following ideas: (1) Stakeholders are individuals and groups with reasonable interest in procedural and/or vital aspects of company activity. Stakeholders are defined by *their* interest in company, regardless companies interest in their functional interest for *them*. (2) Interests of all stakeholders have an intrinsic value, i.e. each group of stakeholders deserves to be taken into consideration because of its intrinsic (human) values, instead of its capability of improving outcomes significant for other groups of stakeholders, for example, shareholders (**regulative);**
- **Stakeholder-oriented management** requires that the justified stakeholder interests are taken into account in all relevant situations, as described by the fundamental principles of stakeholder management (Table 1).

Table 1. Principles of «stakeholder» management

Principle 1	Managers should **acknowledge** and actively **monitor** interest of all reasonable (legitimate) stakeholders, and take them into consideration while deciding and acting
Principle 2	Managers should **listen** and openly **communicate** with stakeholders about their individual interests and preferences, and about risks with whom they are confronting because of connection with company.
Principle 3	Managers should **adopt** processes and behaviors sensitive on interests and competence/ opportunities of every single stakeholder.
Principle 4	Managers should be able to **identify mutual dependence** of efforts and prizes within stakeholders, and should try properly share companies privileges/benefits and burden considering the proper risk and vulnerability.
Principle 5	Managers should **cooperate** with other entities, whether they are public or private, to ensure that risks and damages from activities of company are minimized and compensated where they are inevitable.
Principle 6	Managers should **completely avoid** activities that could endanger inalienable human rights (e.g. right to live), or encourage risks that are obviously unacceptable to important stakeholders.
Principle 7	Managers should **admit possible conflicts** between a) personal role as stakeholder of company and b) its own legal and moral responsibility towards interests of stakeholders, and should approach to that conflict through open communication, adequate statements, stimulating systems, and where it is needed through reviews of third parties.

Source: The Clarkson Center for Business Ethics (1994: 4) as quoted in Friedman, A.L., Miles, S.: **Stakeholders: Theory and Practice**, Oxford University Press, 2006, p. 151

First definitions of stakeholders were organizationally driven. E.g., the Research institute of Stanford defined a stakeholder as a *«group without whose support organization would stop to exist»[3]*. However, within a wider – and a more contemporary – context, the stakeholder can be viewed either as an individual, or a group, which can influence the functioning of an organization, which – in turn - acknowledges the entity as a stakeholder[4]. Therefore, the

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[2] Donaldson, T., Preston, L.E.: «The Stakeholder Theory of the Corporation: Concepts, Evidence, and Implications», **Academy of Management Review**, Vol. 20, No. 1, 1995., p. 66-67

[3] Friedman, A.L., Miles, S.: op.cit., p. 5

[4] Friedman, A.L., Miles, S.: op.cit., p. 5-21

stakeholder is *«any individual or group that can influence or can be driven by achieving goals of organization»*[5], with the organizations perceived as grouping(s) of stakeholders, with the purpose of managing their interests, needs and views.

Therefore, the crucial question is whether the role of stakeholders should be limited to those who are the most important for achieving goals of organization, or could be simply applied to each subject influenced by an organization. In this context, it is important differentiate between all subjects that have a certain influence and «true» stakeholders. Some subjects can be included in both categories (big investors), some can be recognized as stakeholders, but they might not have a significant influence to the organization (candidates for job), while others could significantly influence the organization, without internal participation (such as media)[6].

2. BASIC THEORETICAL DETERMINANTS OF MANAGING RELATIONS WITH STAKEHOLDERS

2.1. Social orientation and organizational responsibility

Social orientation of an organization (company) is related to the development of the stakeholder theory, as well as the concern in balancing numerous interests of different stakeholders. With development of such a responsibility and pressure of society, three solutions are suggested (market competition, legal sanctions and social responsibility of company)[7] as mechanisms that could control the businesses from violating moral and ethic codes in persuasion of profit.

Social responsibility, at the other hand, consists of service to the public and maintaining public goods and, therefore, can be traced as one of sources for development of the stakeholder theory. It is of specific importance for the nonprofit organizations, as their mission and the very existence are tightly connected to the successful management of stakeholder relations. The nonprofits work in a complex environment, with their activities focused toward a larger number of target groups (publics), instead toward a well-defined target group (which is the case for the profit oriented organizations). Therefore, the nonprofit activities are best comprehended within the context of the stakeholder model, which perceives an organization as an open system, composed by many subjects (besides founders/ proprietors of organization, and other insiders), who have legitimate requests towards organization and its performance[8].

Nonprofit sector, beside the two most important subjects whose needs need to be met – actual users (who consume the products/services of an organization) and donors (providing the necessary resources) – needs to manage relations with many other subjects. Different importance is attached to each of those, according to the type of the organization, its mission and goals, as well as other specific features. Such an organization could be considered as

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[5] Freeman, R. E.: **Strategic Management: A Stakeholder Approach**, 1984., as quoted in Friedman, A.L., Miles, S.: op. cit., p. 1-2

[6] Donaldson, T., Preston, L.E.: op. cit., p. 86

[7] Friedman, A.L., Miles, S.: op.cit., p. 20-21

[8] Hinterhuber, H.H. - Krauthammer, E.: «The leadership wheel: the tasks entrepreneurs and senior executives cannot delegate», 1999., as quoted in Trim, P.R.J.: «Strategic marketing of further and higher educational institutions: partnership arrangements and centres of entrepreneurship», **International Journal of Educational Management**; Vol. 17, No. 2, 2003., p. 59

effective if it meets its (pre)determined goals (as defined by the «classic» management theory)[9], although many new studies[10] emphasize **managing relations with stakeholders as a basis of organization efficiency,** especially in concern to their dependence towards donors in achievement of its mission. Significant tasks in managing relations with stakeholders for the nonprofit organizations are: (1) interpretation of stakeholders' expectations and (2) balancing their convenience to values and mission of organization, professional norms of the executive authority and the own interpretation of public good. As a consequence, executives of nonprofit organizations keep certain discretion of way they relations with the stakeholders are managed[11]. It is also important to link organizational values to relations with external subjects. Values which institution emphasizes, as well as goals toward it strives, influence the strength of relations with different partners and the emergence of an adequate fit with values and goals of external stakeholders. Such a fit influences the organizational behavior, which is – in turn – significant for the further development and maintenance of those relations, which are – once again – crucial for obtaining financial support[12]. Consequently, a well designed alignment of values can lead to a virtuous circle of success, both for a nonprofit organization, as well as for its stakeholders.

At the other hand, stakeholders represent a source of insecurity for a nonprofit organization because it requires assets and other forms of commitment from the stakeholders. Considering that stakeholders define their relations with a nonprofit on the basis of the level in which their expectations are met and the manner in which they are treated[13], the stakeholder relations require a careful approach to managing relationship(s) with individual stakeholders. **Action and response** of organization can be problematic when multiple stakeholder groups have changeable and sometimes conflicting expectations from am organization.

In core of **responsibility and organizational response (to stakeholders)** is the awareness that the role of an organization should not be limited to reacting to the environment, but should be rather proactive, which translates to balancing response(s) to individual stakeholders, within the limitations set by the existing resources and the perception of what is the appropriate action to be taken. Strategic management of stakeholders implicates not only response to them, but also guiding their expectation(s). If those are balanced with the values, tasks and competences of a nonprofit, the organization will be noticed and perceived as serving the needs of stakeholders and the entire public, i.e. perceived as efficient and responsible[14].

The other mechanism which influences the *perception of responsibility* is the **principle of consistence** in treating different stakeholders[15]. Consistency increases predictability of non-profit organizations and reduces lack of stakeholder confidence regarding the organization, making it easy to predict the dynamics of the interactions with the organization. However, the consistence should not be contradicted to the interests of a wider community, as well as it

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[9] Buble, M.: *Menadžment,* Ekonomski fakultet Split, Split, 2006, p. 5.
[10] Balser, D., McClusky, J.: «Managing stakeholder relationships and nonprofit organization effectiveness», **Nonprofit Management & Leadership**, Vol. 15, No. 3, 2005., p. 310
[11] Balser, D., McClusky, J.: op. cit., p. 295-296
[12] Voss, G.B., Cable, D.M., Voss, Z.G.: «Linking organizational values to relationships with exstrnal constituents: A study of nonprofit professional theatres», **Organization Science**, Vol. 11, No. 3, 2000., p. 331
[13] Herman, R. D., and Renz, D. O.: «Doing Things Right and Effectiveness in Local Nonprofit Organization», 2004., as quoted in Balser, D., McClusky, J.: op. cit., p. 296
[14] Oliver, C. «Strategic Responses to Institutional Processes», as quoted in Balser, D., McClusky, J.: op. cit., p. 297.
[15] Balser, D., McClusky, J.: op. cit., p. 298-299

does not suggest that the stakeholders perceptions are manipulated, in order to avoid the fulfillment of social interest/own social responsibility. Consistent treatment of stakeholders implies the coherent behavior toward each of them, which recognizes the specific interests of multiple constituencies[16] as approximation of the society in general.

Orientation toward stakeholders/clients as a part of corporate culture implies that those are considered to be placed at the top of the hierarchy, as illustrated by Figure 1. Such an approach allows all members of the organized to be focused on client satisfaction, while the managers are expected to help employees provide value for the clients[17].

OLD APPROACH

BOARD

MANAGERS-

EMPLOYEES IN DIRECT CONTACT WITH CLIENTS

COSTITUENCY

- Driven by process
- Slow decision making
- Constituency has low priority
- Low trust

NEW APPROACH

CLIENTS

EMPLOYEES IN DIRECT CONTACT WITH CLIENTS

MANAGERS-

BOARD

- Driven by activity and results
- Encourages iniciative
- Increases importance of personnel for constituency
- Develops trust

Figure 1. Directionality on constituency – old towards new approach

Source: Daw, P., „Empowering Employees Drives Australian Transportation Customer Service», 1992, as quoted in Vranešević, T.: **Upravljanje zadovoljstvom klijenata**, Golden marketing, Zagreb, 2000.

2.2. Social orientation and multiple constituency approach to social responsibility in non-profit sector

The concepts of **social orientation** and the **implementation of marketing concept in non-profit organizations** are believed to be (inter)connected[18]. Namely, the idea of social orientation starts from the assumption that the main task of an organization is to define needs, desires and interests of clients/customers and to ensure that, by satisfying these requirements, the benefit and the long-term interests of clients/customers and society are preserved or increased[19]. Figure 2. illustrates the components of the social orientation.

Through certain **antecedents,** social **orientation of an organization** is formed. Its output is the creation of certain **organizational benefits,** which produce the **social benefits** as a

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[16] Padanyi, P., Gainer, B.: «Market Orientation in the Nonprofit Sector: Taking Multiple Constituencies into Consideration», **Journal of Marketing Theory & Practice**, Vol. 12, No. 2, 2004., p. 54-55
[17] Vranešević, T.: **Upravljanje zadovoljstvom klijenata**, Golden marketing, Zagreb, 2000., p. 312-313
[18] Sargeant, A., Foreman, S., Liao, Mei-Na: «Operationalizing the Marketing Concept in the Nonprofit Sector», **Journal of Nonprofit & Public Sector Marketing**, Vol. 10, No. 2, 2002., p. 46-47
[19] Kotler, P., Fox, K.F.A.: **Strategic marketing for educational institutions**, Prentice Hall, New Jersey, p. 10

consequence[20]. First component, as one of specificities of the nonprofit sector is the *orientation towards stakeholders*. Namely, the presence of multiple constituencies is the defining attribute of the nonprofit sector, as well as organizational dependence on a larger number of constituencies/stakeholders, with the needs of a single group of stakeholders being less dominant than in the profit sector. Therefore, it can be expected that the *higher level of orientation towards stakeholders leads to a higher level of social orientation and responsibility*.

Social orientation
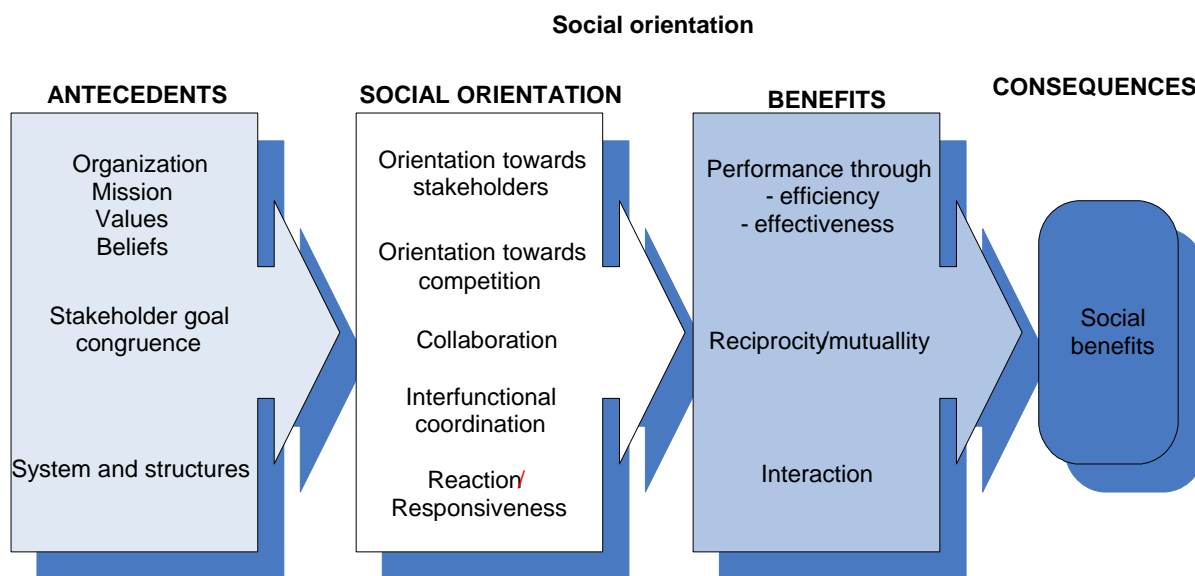
Figure 2. Social orientation construct

Source: Sargeant, A., Foreman, S., Liao, Mei-Na: „Operationalizing the Marketing Concept in the Nonprofit Sector», **Journal of Nonprofit & Public Sector Marketing**, Vol. 10, No. 2, 2002, p. 49

The successfully applied social orientation creates certain **benefits at the organizational level** (such as the organizational performance, reciprocity and interaction with stakeholders), which lead towards the **benefits for the society at large.** Although the end benefits can not be defined as easy as in the case of the profit sector, the context of evaluating the socially responsible behavior and its outcomes for the society can be practically developed within the theory of **multiple constituencies/stakeholders.** It claims that nonprofit organizations have multiple monetary and non-monetary exchange relations with *multiple social groups (constituencies/stakeholders),* which differs significantly from bilateral exchange relations found in the profit sector (i.e. exchanges of products/services with the paying customers)[21]. These *multiple stakeholders* include clients, donors, volunteers, board members, employees, etc. who - probably - have different goals and requests, which contribute to potential differences in their interests and expectations[22]. Multiple constituency model, therefore, acknowledges the existence of different criteria in evaluation of the effectiveness of a

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[20] Custumized accordring to Sargeant, A., Foreman, S., Liao, Mei-Na: op. cit., p. 48-55

[21] Kanter, R.M., Summers, D.V.: «Doing Well While Doing Good: Dilemmas of Performance Measurement in Nonprofit Organizations and the Need for a Multiple Constituency Approach» 1987., as quoted in Padanyi, P., Gainer, B.: op. cit., p. 54-55

[22] Zammuto, R.F.: «A Comparison of Multiple Constituency Models of Organizational Effectiveness», 1984., as quoted in Balser, D., McClusky, J.: op. cit., p. 299

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nonprofit organization, which can be accepted as a complex, but extremely realistic approach to understanding the nonprofits and their effectiveness[23].

Another important aspect of the *multiple constituency model* is that nonprofit organizations should develop and implement *different and independent strategies for individual constituencies/stakeholders.* This implies that the **social orientation should be «subject-specific»,** as individual social subjects have different interests and needs and demand a different kind of dynamics and relationships with an organization. In this context, it can not be expected that a nonprofit shall simultaneously demonstrate the same level of social orientation towards all subjects or express the same intensity of relationship with each of its stakeholders. Moreover, it can be realistically expected that the «typical» organization demonstrates a different levels of orientation towards different subjects simultaneously. Namely, allocation of efforts (and resources) towards different stakeholders inevitably burdens the organization, which often responds by concentrating its efforts toward the subject(s) it considers to be the most important. Although nonprofit organizations depend on donors and other subjects who provide financial resources, they are trying to balance their financial and non-financial goals[24].

From the behavioral point of view, it is crucial to identify the activities that must be taken within the organization   , in order to enact the social orientation, either toward a single, or multiple constituencies. As suggested by Kohli and Jaworski[25], a market oriented for-profit organization needs to focus its activities toward the target market. The same framework can be also applied to the implementation of marketing/social orientation in nonprofit organizations. These activities can be classified according to three dimensions[26]:

- collection of market related information *(Intelligence Generation),*

- allocation of such information within the organization *(Intelligence Dissemination),*

- encouragement of actions/responses, directed towards satisfaction of clients/users, donors and other relevant stakeholders *(Responsiveness).*

In the context of this research project, it is important to determine whether specific forms of social orientation are more important for the higher education (HE) as a part of the nonprofit sector, which are the significant stakeholders for the institutions of HE, as well as what is the existing level of marketing/social orientation toward individual stakeholders and how much it affects the performance of HE institutions. This is especially important for institutions of Croatian higher education, as the nonprofit status of the field is being questioned, the amount of private institutions of higher education increases and the challenges of the Bologna process and new international competition are mounting.

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[23] Herman, R.D.; Renz, D.O.: «Nonprofit Organizational Effectiveness: Contrasts Between Especially Effective and Less Effective Organizations»,**Nonprofit Management & Leadership**, Vol. 9, No. 1, 1998., p. 24-25
[24] Custoized according to Padanyi, P., Gainer, B.: op. cit., p. 45-47
[25] Kohli, A.K.; Jaworski, B.J.: «Market Orientation: The Construct, Research Propositions, and Managerial Implications», **Journal of Marketing**, Vol. 54, No. 2, 1990., p. 1-18
[26] Vázquez, R., Álvarez, L.I., Santos, M.L.: «Market orientation and social services in private non-profit organisations», **European Journal of Marketing**, Vol. 36, No. 9/10, 2002., p. 1029-1030

2.3. Specifics of multiple constituency model in higher education

Each educational institution nurtures relationships with different constituencies/stakeholders. The institutions of higher education (HE) can not adequately manage them, as most of them often do not recognize who are their stakeholders, what is their importance, how they contribute to the institution and the higher education in general, as well as who of them reaps the benefits from the HE processes. As previously defined, the *stakeholders of higher education* can be identified as social groups which do (or could) demonstrate a particular interest and/or those which do (or could) influence the functioning of an institution of HE. In this context, it is critical to exactly define the relevant stakeholders, relations with them and multiple roles that certain stakeholders perform.

In higher education, the usage of **systematic approach** is being advocated[27], as a comprehensive approach to all relevant stakeholders, based on the holistic understanding of the educational process. Such a concept identifies three subsystems, which can be compared to the traditional partition of an organization's environment[28]: (1) the academic institution; (2) the related social systems and (3) the environment. The institution of higher education includes professors, students, administrators, support personnel, physical infrastructure, etc. It is surrounded by the interacting elements of the related social systems, and entities, including secondary education, employers, suppliers of goods and services, alumni and potential students, etc. The general/external environment only has an indirect influence on higher education, as it represents the government, profit sector, wider community, etc.

Therefore, according to their relative influence, the stakeholders could be also divided into the three wide categories[29], although the perception of «typical» stakeholders depends on the specific features of the HE institution itself, as well as the domain of higher education in which the institution is positioned, characteristics of the national educational system, level of national development, etc. On the basis of the previous theoretical discussions and the empirical research, the «typical» stakeholders of a higher education institution, are identified and illustrated by Figure 3.

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[27] Hawkes, N., Nuttall, N.: «When buses went down the wrong road», (1997), as quoted in: Reavill, L.R.P.: «Quality assessment, total quality management and the stakeholders in the UK higher education system», **Managing Service Quality**; Vol. 8, No: 1, 1998., p. 57

[28] Buble, M.: *Menadžment,* Ekonomski fakultet Split, Split, 2006, p. 67.

[29] Reavill, L.R.P.: op. cit., p. 58
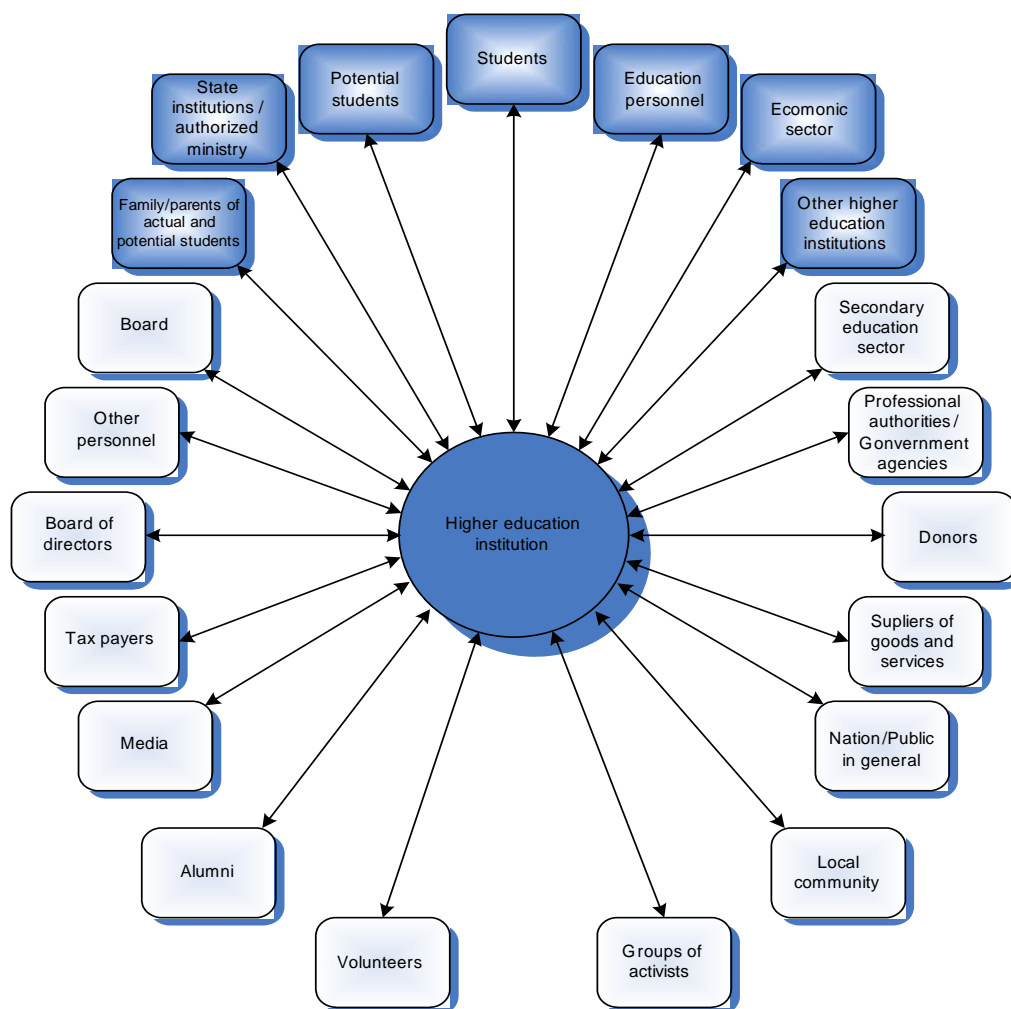
Figure 3. Map of higher education institution stakeholders

Adapted from: Kotler, P., Fox, K.F.A.: op. cit., pp. 20-26; Reavill, L.R.P.: op. cit., 1998, pp. 58-60; Friedman, A.L., Miles, S.: op. cit., pp. 13-15 and 25-28

It is important to note that a single stakeholder within the HE context may take multiple roles, as well as that the borders among the individual stakeholders may be blurred, or might not even exist. In addition, although the following model will be used as a starting point for the empirical research, many of the «generic» stakeholders do not play an important role within the Croatian higher education sector, as discussed in the following section.

3. THE CROATIAN HIGHER EDUCATION SYSTEM

In Republic of Croatia, there are currently 103 institutions of higher education, including universities with its components, public polytechnics, public schools of professional higher education, private polytechnics and private schools of professional higher education. In these institutions, in the academic year of 2002/2003, there were 121.722 students enrolled, which has increased to the enrollment of 126.322 students in the next academic year, while in the academic year of 2004/2005 the enrollment further increased and reached 134.986 students[30].

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[30] xxx: Education 2005./2006. (Statistical data), Republic of Croatia – Central bureau of statistics 2006., p. 35

In both tracks (university level and professional level) of higher education, students enroll either with the financial assistance of the Ministry of science, education and sports, or pay the academic fees themselves (in case they have not qualified for the quota financed by the ministry). However, the academic fee and the enrollment quotas are regulated for the public (state-owned) universities, while the new, privately-owned institutions of HE do not meet such a high level of government regulation. Regarding the number of inhabitants, number of students in Croatia is one of the lowest in Europe.

System of higher education is administered by the Ministry of science, education and sports, along with the other administrative institutions, formed either by the ministry, or by the universities/schools. On national level, these include - National council for higher education, Rectors' conference, rectors of Croatian polytechnics; on the level of universities - university senates, in which deans of all faculties/schools are represented; on the level of faculties/schools – individual deans and faculty councils, consisting of representatives of all professors tenured and tracked for tenure, as well as of members representing students and assistants. Unions of employees in science and educational, as well as students' organizations also have a little, or a corrective role in the system.

Public (state-owned) HE institutions are mostly financed directly from the budget through Ministry of science, education and sports, which provides monthly financial contributions to state-owned institutions, for wages of professors, associates and other personnel, as well as resources for material costs, current maintenance and capital investment.

The system of higher education in Croatia is supposed to have two important roles[31]. The first is to *increase the human capital and resources* through the growth of highly educated population, as manifested by the growth of the amount of students in the population of the developed countries. In this context, it is important to note the existence of a large gap: for instance, the EU has the amount of 17 percent of highly educated population, which is almost twice as much as in Croatia. However, emphasis should not be placed on the insufficient growth of the educational capacity, bur rather on its insufficient quality and effectiveness. Arguments for such a statement can be found in the unusually long average duration of study (in average, 7 years) and low efficiency of high education (considering that, in average, each third student enrolled graduates at all). The second important role of the system of HE should be the *fundamental education of future scientists*.

Regarding the requirements of the knowledge society, which accent the flexibility, interdisciplinary, creativity and lifelong education for science, the Croatian system of HE can be evaluated as inappropriate. Although there are individual institutions, programs and human resources of exceptional quality, a recent study states that the Croatian system of HE is conceptually and methodologically outdated, as well as inert or even unwilling to change[32]. Many (potential) reason could be cited: absence of development vision, insufficient investment in area capacity, science and technical equipment of higher education, age structure of professors, a complete absence or a low level of quality control, extremely small number of programs available in English language, low interest for commercialization and involvement in knowledge market, etc. Many of these shortcomings have been addressed by the recent operative plan of strategic development of science in Republic of Croatia[33].

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[31] xxx: Croatia in the 21st century: Science, Office for development strategy of the Republic of Croatia, 2003., pp. 18-19
[32] Ibidem., p. 19-20
[33] Ibidem, p. 44-51

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According to another study related to introduction of quality systems in the Croatian higher education institutions[34], majority does not possess an ISO certificate, nor do they demonstrate practical acceptance of importance of quality in higher education. It is also questionable whether quotas of enrollment in Croatian higher education institutions are actually based on research of future needs of economy and society and whether they contribute to the goal of continuous development/lifelong learning. On the other hand, demands for increased quality of education and teaching in small and interactive groups, inherent to the Bologna process, imply the need to increase the number of employees. From 2003 until 2006, there has been an increased employment in the higher education institutions, but the unplanned process of adding academic staff does not follow the increased number of students and demands of the Bologna process.

One of important steps leading toward the integration of universities is the introduction of new model of financing higher education institutions, so called *lump sum* model. First element of this model is being applied since January 2006, with the new way of financing providing universities (instead of individual schools) with autonomy in control of resources provided by the state budget. According to the existing law, Croatian universities should be totally integrated no later than beginning of 2008, although it is still not clear how the whole process will develop and how the potential conflicts between components of individual universities will be solved. Gradual opening of more privately-owned institutions of HE (representing the «for-profit» section of the sector) and opening of international education market through Bologna process represents new challenges to the Croatian higher education sector.

4. MULTIPLE CONSTITUENCY APPROACH TO SOCIALLY RESPONSIBLE MANAGEMENT OF CROATIAN INSTITUTIONS OF HIGHER EDUCATION

4.1. Fundamental theoretical determinants

The issues of social/multiple stakeholder orientation in the institutions of higher education (HE) in the Republic of Croatia are defined as central issues of this empirical research project. It also strives to address the problems of efficient stakeholder management and the creation of social benefits in general. The project had been based on the theoretical model, which was verified on the sample of 87 public (state-owned) HE institutions, with the leaders of these institutions serving as respondents.

Majority of existing empirical studies measuring orientation of organizations in profit sector towards their customers have been conducted within different industries, taking mostly into account a single stakeholder - the customer/user, while only some of them[35] discussed orientation toward multiple stakeholders. Within the nonprofit sector, research had mostly concentrated to a certain nonprofit activity, by considering a single stakeholder, mostly the

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[34] Lazibat, T.: *Sustavi upravljanja kvalitetom u visokom obrazovanju,* Sinergija nakladništvo, Zagreb, 2005., p. 113-116
[35] Greenley, G.E.,Foxall, G.R.: «Multiple stakeholder orientation in UK compianies and the implications for company performance», **Journal of Management Studies**, Vol. 34, No. 2, 1997.; Lado, N., Maydeu-Olivares, A.. Rivera, J.: «Measuring market orientation in several populations: A structural equations model», **European Journal of Marketing;** Vol. 32, No. 1/2, 1998.

end users/clients, or donors, or both of them[36]. As previously indicated, one of fundamental characteristics of the nonprofit sector is the existence of multiple constituencies and complexity of relations with clients.

Considering the characteristics of the Croatian HE sector and the academic community (discussed in the previous section of the paper), seven stakeholders *(students, potential students, economic sector, education personnel, authorized ministry/other state institutions, parents of actual and potential students, competition/other higher education institutions)* have been selected, in order to empirically verify whether the Croatian HE institutions express overall social responsibility by establishing and managing efficient stakeholder relationships.

The empirical research had been based upon a theoretical model, created to measure social responsibility of HE institutions by transparent and consistent treatment of all relevant target groups/stakeholders. The model was derived from the «classical» studies, including:

- research from the profit sector, conducted by Kohli and Jaworski[37], Narver and Slater[38], Deshpandé, Farley and Webster[39], including the adoption and modification of the measurement scales introduced by Kohli and Jaworski[40], as well as Kohli, Jaworski and Kumar[41];

- studies continuing the research on client/customer orientation, both in profit (Deng and Dart[42]) and nonprofit sector (Vasquez, Alvarez, and Santos[43], Caruana, Ramaseshan and Ewing[44], Balabanis, Stables and Philips[45], Kara, Spillan and DeShields[46]), with the special attention paid to the *model of multiple constituencies/stakeholders and different level of marketing/social orientation towards different subject groups*, originally developed by Padany and Gainer[47];

- approach to social orientation in terms of **behavior groups** (i.e. gathering market-related information, internal allocation of information and initiating response/reaction focused toward ensuring stakeholder satisfaction − as conceptualized by Kohli and Jaworski[48]), relying on the hypothesis that the higher level of orientation toward

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[36] Caruana, A., Ramaseshan, B., Ewing, M.T.: «Do universities that are more market orientated perform better?», **International Journal of Public Sector Management,** Vol. 11, No. 1, 1998; Padanyi, P., Gainer, B., op. cit.

[37] Kohli, A.K.; Jaworski, B.J., op. cit.

[38] Narver, J.C.; Slater, S.F.: «The effect of a market orientation on business profitability», **Journal of Marketing,** Vol. 54, No. 4, 1990.

[39] Deshpandé, R., Farley, J.U., Webster, F.E.Jr.: «Corporate Culture Customer Orientation, and Innovativeness in Japanese Firms: A Quadrant Analysis», **Journal of Marketing,** Vol. 57, No. 1, 1993

[40] Kohli, A.K.; Jaworski, B.J., op. cit.

[41] Kohli, A.K., Jaworski, B.J., Kumar, A.: «MARKOR: A Measure of Market Orientation», **Journal of Marketing Research**, Vol. 30, 1993.

[42] Deng, S., Dart, J.: «Measuring Market Orientation: A Multi-factor, Multi-item Approach», **Journal of Marketing Management,** Vol. 10, No. 8, 1994

[43] Vázquez, R., Álvarez, L.I., Santos, M.L., op. cit.

[44] Caruana, A., Ramaseshan, B., Ewing, M.T., op. cit.

[45] Balabanis, G., Stables, R.E., Phillips H.C.: «Market orientation in the top 200 British charity organizations and its impact on their performance», **European Journal of Marketing,** Vol. 31, No. 8, 1997

[46] Kara, A., Spillan, J.E., DeShields, Jr. O.W.: "An empirical investigation of the link between market orientation and business performance in nonprofit service providers", **Journal of Marketing Theory & Practice**, Vol. 12, No. 2, 2004

[47] Padanyi, P., Gainer, B., op. cit.

[48] Kohli, A.K.; Jaworski, B.J., op. cit.

clients leads towards stronger client/customer-oriented organizational culture, which generates higher client/customer satisfaction (as proposed by Gainer and Padany[49]).

The resulting research hypotheses were as follows:

H_1: Higher education (HE) institutions in Croatia vary in levels of social orientation, which can be explained by the subject-specific orientation, i.e. the social orientation of HE institution varies according to relevant multiple stakeholders.
H_2: There is a significant difference in orientation toward relevant stakeholders among different types of HE institutions in Croatia.
H_3: There is a significant difference in orientation toward relevant stakeholders among different (scientific) fields of HE in Croatia.

4.2. Methodology

The empirical study has been based on a representative sample, with a specially designed questionnaire used to collect primary data. The questionnaire has been modified from the "classical" studies by Kohli, Jaworski and Kumar[50], as well as by Deng and Dart[51]. It included a large number of important control variables (e.g. type of higher education institution, number of professors employed, number and categorization of students[52], scientific field of a higher education institution[53], function of respondent, etc.). The research sample included managers (deans, vice-deans and/or high-level professional staff) of Croatian HE institutions. The collected data has been analyzed with adequate statistical methods, by using the PC-based software package *Statistica*.

The population for this project has been defined in terms of public (state-owned) higher education institutions in Republic of Croatia (103), with the sample selection framework based on the list and categorization of higher education institutions provided by the Ministry of science, education and sports[54]. The sample included 85 public school/faculties belonging to different universities (which has taken into account that the *Croatian universities are not integrated and currently represent only a loose association of individual schools/faculties)*, as well as two "new" universities - University of Dubrovnik and University of Zadar (Table 1), which were formally founded at the time the research has been carried out[55]. Namely, *the "new" universities* (developing from the individual schools/faculties) are *integrated,* with the organizational structure being based on *university departments*. Considering the fact that many departments of the "new" universities are in the early stages of development, their responses could not be considered as realistic for the purpose of the project. Therefore, only the largest, well-established departments of the "new" universities (that have existed as

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[49] Gainer, B., Padanyi, P.: «The relationship between market-oriented activities and market-oriented culture: implications for the development of market orientation in nonprofit service organizations», **Journal of Business Research,** Vol. 58, No. 6, 2005

[50] Kohli, A.K.; Jaworski, B.J., op. cit.; Kohli, A.K., Jaworski, B.J., Kumar, A., op. cit.

[51] Deng, S., Dart, J., op. cit.

[52] See in: xxx: Education 2004/2005 (Statistical data), Republic of Croatia – Central bureau of statistics, Zagreb, 2005; xxx: Education 2005/2006 (Statistical data), Republic of Croatia – Central bureau of statistics, Zagreb, 2006

[53] Zelenika, R.: **Metodologija i tehnologija izrade znanstvenog i stručnog dijela**, Ekonomski fakultet Rijeka, Rijeka, 1998. p. 89

[54] See at: http://www.mzos.hr/ustanove/ (retrieved on 25. April 2006); xxx: **Obrazovanje 2005./2006. (Statističke informacije)**, Republic of Croatia – Central bureau of statistics, Zagreb, 2006

[55] In the meantime, the University of Pula has been founded, as well.

individual schools/faculties and served as a "seed" for establishing the university) have been considered. The central administrative bodies of the four "old" universities (Zagreb, Split, Rijeka, and Osijek) are not included into the sample, as they do not currently serve the function of an integrated university. Public polytechnics ("*veleučilište*" in Croatian terms) and schools of professional higher education were also included into the sample, which increased the sample to include 87 public institutions of HE.

Table 1. Structure of public HE institutions included in research sample

TYPE OF HIGHER EDUCATION INSTITUTION	NUMBER OF INSTITUTIONS	(%)
Faculty	59	67,81
Public school of professional higher education	6	6,90
Teacher academy	1	1,15
Art academy	6	6,90
Polytechnics	7	8,04
School of professional higher education	1	1,15
School of professional higher education for teachers	4	4,60
University department	1	1,15
University administration	2	2,30
TOTAL	87	100,00

Source: http://www.mzos.hr/ustanove/

Managers of public HE institutions (deans, vice-deans and high-level professional staff) were chosen as respondents, as they are believed to be the promoters of a certain type of organizational behavior and "architects" of organizational culture. In addition, those respondents have a close knowledge of organization and its functioning. The cover letter asked for the cooperation of either the dean himself/herself, or a high-level person informed about the subject of the research. As a result, vice-deans and high-level professionals attached to deans' offices also appeared as potential respondents. All three types of respondents are believed to have access to relevant information, while such a sample provides an additional level objectivity to the research.

Questionnaires were distributed to higher education institutions at the beginning of May 2006, in order to obtain response before the summer exam period. Two questionnaires were sent, one for the dean, and one for the secretary of higher education institution. The respondents were urged by telephone to provide a valid response, with the same channel used to solve possible problems. In the first month after the initial distribution, the response rate of 69% has been achieved.

4.3. Research results

Out of 87 higher education institutions included into the sample, 64 (74%) have taken part in the primary data collection. As 4 of the received questionnaires were not valid, 60 have been analyzed, which brings the final response rate to the level of 69%. In comparison with the similar empirical studies[56], with response rates ranging from 25% to 35%, the achieved success in the primary data collection can be assessed as completely satisfactory. Figure 4.

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[56] See details in: Balabanis, G., Stables, R.E., Phillips H.C.: op. cit., p. 590; Caruana, A., Ramaseshan, B., Ewing, M.T.: op. cit., p. 62; Kara, A., Spillan, J.E., DeShields, Jr.O.W.: op. cit., p. 65; Padanyi, P., Gainer, B.: op. cit., p. 50; Vázquez, R., Álvarez, L.I., Santos, M.L.: op. cit., p. 1029

demonstrates the structure of institutions answering the questionnaire, grouped by the type of institution. The departments of the "new" universities *departments* (University of Dubrovnik and University of Zadar) have been classified under the category of individual faculties. Compared to Table 1, the sample is representative of the population.
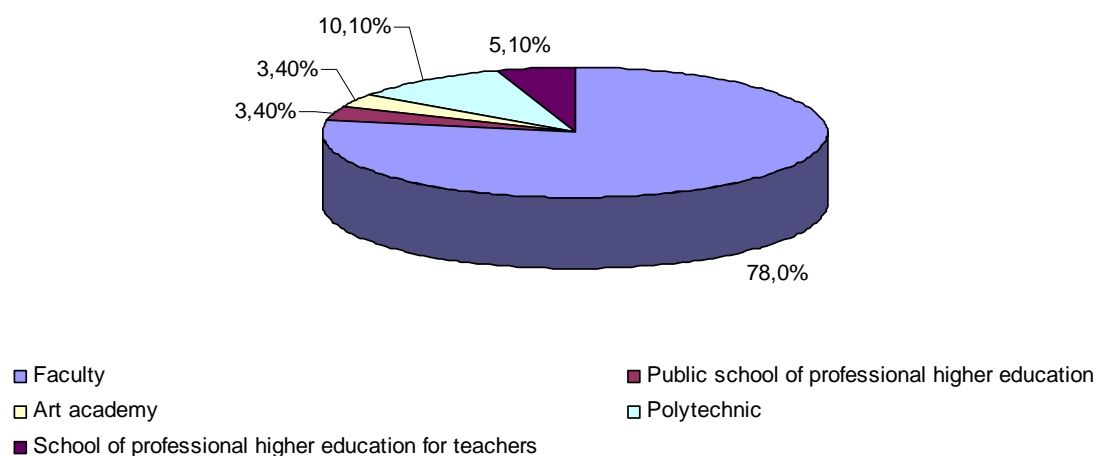
Figure 4. Structure of higher education institutions by their type

Source: Research documentation

The scientific field of the sampled institutions is illustrated by Figure 5. In the research sample, the majority of HE institutions belong to the technical science (31.67%), followed by the social science (26.67%), and humanities (15%). They are followed by institutions active in several scientific fields (8.33%), biotechnology (8.33%), natural sciences (5.00%) and medicine (5.00%). Once again, the sample is representative of the population.
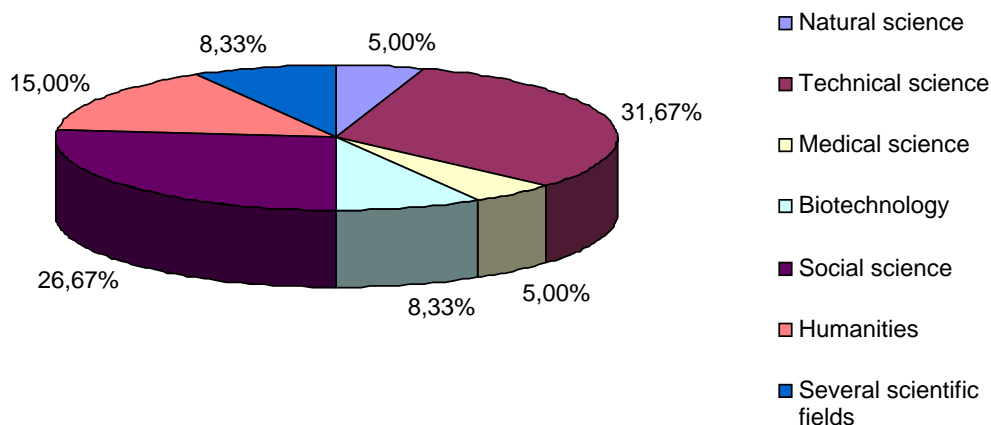
Figure 5. Structure of higher education institutions by science fields

Source: Research documentation

It has already been mentioned that the primary data were provided by deans, vice deans and high level professionals employed by HE institutions. Figure 6. illustrates structure of respondents according to the previously mentioned groups, which are represented by the almost identical amounts.
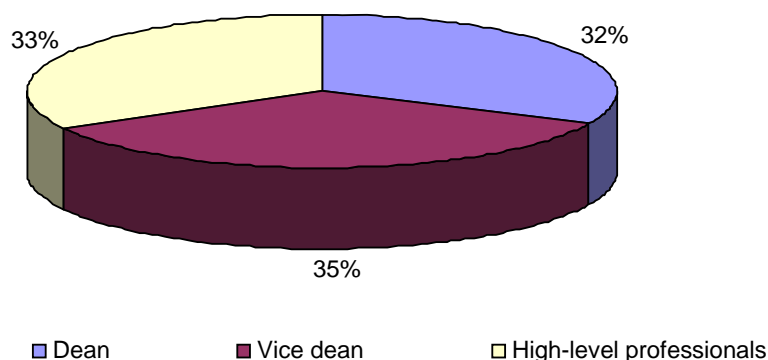
Figure 6. Structure of respondents according to their function

Source: Research documentation

The analysis of variance (ANOVA), examining the significant differences in average orientation toward all the stakeholders (see Table 2), can provide the answer to the issue whether the heterogeneous respondent sample affects the research results. With the empirical significance level of 0.6720, exceeding the theoretical level of 0.05, the zero hypothesis can be accepted, leading to the conclusion that *the answers of three respondent groups are not significantly different, i.e. the validity of the research results is not compromised.*

Table 2. ANOVA analysis of significant differences among the respondent groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups		1	.026	.181	.672
Within Groups	8.382	58	.145		
Total	8.409	59			

Source: Research documentation

Figure 7. illustrates the structure of stakeholder orientation according to scientific fields covered by the Croatian HE institutions. All institutions, without regard to their scientific field, provide the strongest orientation toward their faculty, instead toward the students, who should be regarded as a fundamental stakeholder of such organizations. The surveyed organizations are also significantly committed to managing their relationship(s) towards (potential) competition. The HE institutions in different scientific fields have a varying relationship with the economy (as potential employers of their students), although the commitment of institutions in humanities, medicine and natural sciences to relationship(s) with the profit sector seems almost completely unexisting.

At the other hand, the HE institutions covering technical sciences or several scientific fields, followed by those in biotechnology and social sciences, pay a little more attention to the profit sector/economy, although such a result can not be described as satisfactory. Orientation toward the students' needs and managing relationships with potential students is also unsatisfactory, especially in technical sciences and humanities. None of surveyed institutions provides adequate attention toward their students' parents, who are supposed to be the primary sources of finance, if the students are supposed to pay for their higher education.
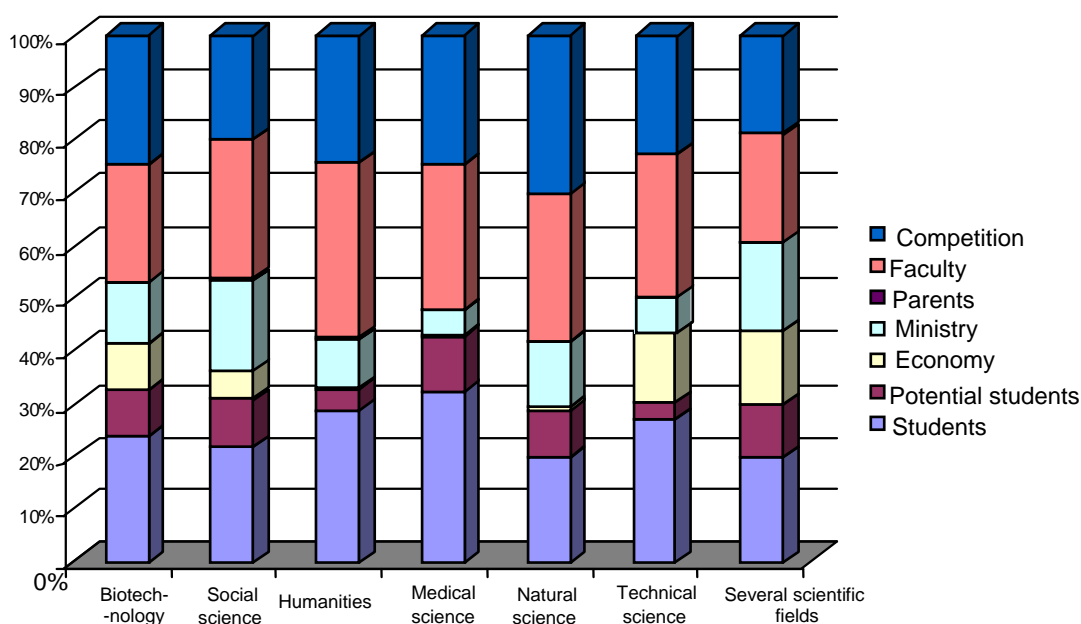
Figure 7. Stakeholder orientation of surveyed HE institutions by their scientific field

Source: Research documentation

Analysis of variance (Table 3.), analyzing the stakeholder orientation among institutions covering different scientific fields, at the significance level of 10%, demonstrates the significant differences in orientation for following stakeholders: students, economy and the Ministry of science, education and sports.

Therefore, it can be concluded that the surveyed HE institutions don't adequately recognize the most important stakeholder (students), regardless of their scientific area, with the differences in orientation towards multiple constituencies varying significantly. There could be several reasons which can explain such a finding: some institutions partly recognize students as their fundamental target group; others depend more heavily on student contributions and, therefore, recognize this relationship in a higher level; the third group of institutions has (a too) large number of students enrolled, with the demand constantly exceeding the supply, which leads to the situation in which students are not recognized as the fundamental stakeholder.

Same conclusion could be applied to the orientation of HE institutions toward the profit sector (perceived as the employer of the graduated students) and the Ministry of science, education and sports. Such findings can be explained by the major sources of funding – while institutions in some scientific fields rely exclusively to the funding from the state budget (provided by the relevant ministry), the other recognize the relationship(s) with the profit sector (economy) as the most significant source of funding.

Table 3. Analysis of variance of multiple stakeholder orientation among HE institutions in different scientific fields

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Students	Between Groups	1.805	5	.361	2.208	.067
	Within Groups	8.828	54	.163		
	Total	10.632	59			
Potential students	Between Groups	1.281	5	.256	1.171	.335
	Within Groups	11.810	54	.219		
	Total	13.091	59			
Economy (employers)	Between Groups	5.088	5	1.018	4.191	.003
	Within Groups	13.111	54	.243		
	Total	18.198	59			
Ministry of science, education…	Between Groups	2.559	5	.512	3.539	.008
	Within Groups	7.808	54	.145		
	Total	10.366	59			
Parents	Between Groups	.327	5	.065	.388	.855
	Within Groups	9.104	54	.169		
	Total	9.431	59			

Source: Research documentation

Figure 8. illustrates the orientation toward the multiple stakeholders in relation to the type of the HE institution surveyed (see Figure 4 for structural determinants of the sample). Once again, regardless of the type of HE institution surveyed, the most important stakeholder seem to be the own faculty members, instead of students as a fundamental stakeholder. In addition, in almost all kinds of HE institutions, more attention is paid to competition/other HE institutions than toward the students.
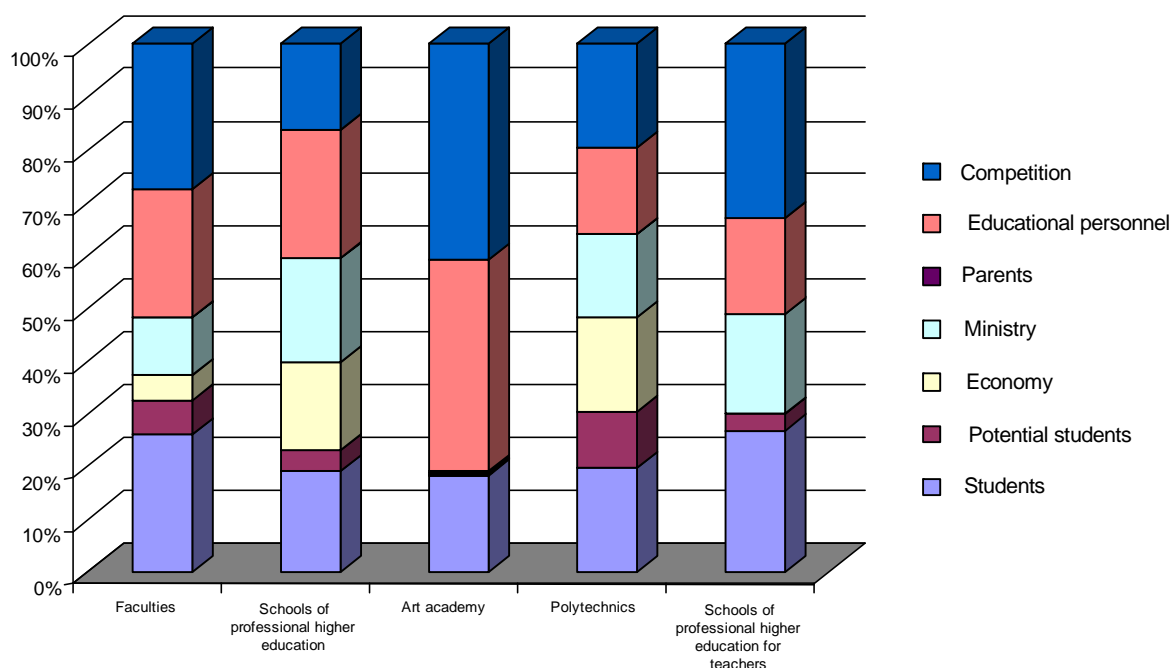
Figure 8. Structure of multiple stakeholder orientation according to type of surveyed HE institutions

Source: Research documentation

Analysis of variance (Table 4.) analyzing the stakeholder orientation among different types of HE institutions, at the significance level of 10%, demonstrates the existence of significant differences in orientation toward the following stakeholders: students, economic sector and the Ministry of science, education and sports. This may lead to the same conclusion as in the previous case: all kinds of Croatian HE institutions do not recognize adequately the students as their most important stakeholder (students), while the differences in orientation toward other stakeholders vary significantly (especially if considering the differences in orientation toward students, economy and the relevant ministry).

Table 4. Analysis of variance according to type of higher education institutions and by multiple stakeholders

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Students	Between Groups	1.803	4	.451	2.808	.034
	Within Groups	8.830	55	.161		
	Total	10.632	59			
Potential students	Between Groups	1.270	4	.318	1.478	.221
	Within Groups	11.821	55	.215		
	Total	13.091	59			
Economy (employers)	Between Groups	4.936	4	1.234	5.117	.001
	Within Groups	13.263	55	.241		
	Total	18.198	59			
Ministry of science…	Between Groups	2.558	4	.639	4.504	.003
	Within Groups	7.809	55	.142		
	Total	10.366	59			
Parents	Between Groups	.275	4	.069	.413	.798
	Within Groups	9.156	55	.166		
	Total	9.431	59			
Competitive institutions	Between Groups	.747	4	.187	.912	.464
	Within Groups	11.273	55	.205		
	Total	12.020	59			

Source: Research documentation

6. CONCLUSIONS

Goals of education in general, especially of higher education - which establishes complex relations with multiple stakeholders/target groups - can be improved by adequately perceiving the importance of **social orientation and orientation towards multiple relevant stakeholders.** Such an orientation can greatly contribute to efficient stakeholder management and – ultimately – to the improved performance and increased satisfaction of multiple stakeholders, which can be described in terms of social benefits. This research project tried to empirically measure to what extent are the Croatian HE institutions socially responsible, by establishing how they treat their stakeholders.

The existing literature insufficiently covers the stakeholder management in the nonprofit sector, which applies especially to the higher education. In addition, there haven't been similar studies, applying the multiple constituency approach to the Croatian nonprofit sector, especially in the HE field, which is of special importance if challenges of the Bologna process are accounted for. The significance of this line of empirical research are further emphasized by the potential of the multiple constituency approach to contribute to success of realization

of mission and performance improvement in HE institutions, as confirmed by previous researches, both in profit and nonprofit sectors.

Results of the empirical study lead to the conclusion that the surveyed HE institutions *vary in levels of social orientation towards the relevant target groups/stakeholders, i.e. they show the subject-specific orientation.* Such a finding makes it easy to **accept the hypothesis H_1.** Considering the results of stakeholder orientation by scientific fields and types of HE institutions, it can be concluded that HE institutions significantly vary in their orientation toward different stakeholders, especially towards students, economy (as "final users" of the graduated students as the "final product" of the HE process) and the relevant ministry/other state institutions. This makes it possible to **accept the hypotheses H_2 and H_3.**

Results of the individual segments of the study demonstrate that the Croatian HE institutions **have not developed a transparent and consistent approach to stakeholder management,** especially toward their existing and potential students, as well as the profit sector (the economy), which puts their social responsibility in question. There could be numerous reasons for such a situation: a general lack of interest for the multiple constituency approach, both within the entire nonprofit sector and within the HE institutions; constant changes and low stability within the HE sector, the attempts to implement the binary HE system and the contingent change of the system into a mixed one; too high enrollment quotas in individual HE institutions, neglection of students as fundamental stakeholders, etc.

Some solutions could be found in the establishment of a binary HE system, which should result on two levels of independent institutions. It should also preserve the conceptual differences between professional and university studies, without "overloading" existing faculty at the level of university studies. Such a HE system could, however, retain its efficiency by the closer cooperation between the institutions at professional and university levels: for instance, through shared departments, professors and associates. Nevertheless, the empirical results firmly demonstrate that the Croatian HE institutions should firstly **recognize of students as their first and foremost partners**, while simultaneously paying adequate attention to other relevant stakeholders (profit sector, potential students, faculty, Ministry of science, education and sports, competition/other higher education institutions, parents). The transparent and consistent approach to multiple relevant target groups/stakeholders should, ultimately, lead toward increased social benefits in general.

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TIME VARYING PORTFOLIO RISK FORECASTING ON CROATIAN STOCK MARKET

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Key words: *portfolio theory, multivariate forecasting, volatility, time-varying risk, asymmetric GARCH process*

1. INTRODUCTION

For any investor on stock market it is very important to predict possible loss, and different reaction of financial return series on "good" and "bad" information in economy. By forecasting portfolio risk investor can be ensured "a priori" from estimated market risk, using financial derivatives, i.e. options, forwards, futures and other instruments. In that sense we find financial econometrics as the most useful tool for modeling conditional mean and conditional variance of nonstationary financial time series. Using assumption of heavy tailed distribution, such as Student's t-distribution in multivariate GARCH(p,q) models, it becomes possible to forecast portfolio risk much more precisely. Such modeling enables time-varying portfolio risk forecasting, because the assumption of constant risk measures between stocks is unrealistic. The complete procedure of analysis is established using daily observations of Pliva stocks as the most frequently traded stock from CROBEX index at Zagreb Stock Exchange.

Pliva is one of the leaders in pharmacy industry in Eastern and Central Europe in more than 30 countries. After entering on quotation on London Stock Exchange in 1996 Plivas Activity has been expanded an all international markets. Therefore, toady more than 50% of Plivas total revenue is realized on western markets. In 2005 Pliva stocks were the most liquid on Zagreb Stock Exchange, with more than 600 billion kunas of turnover.

The interest of this paper is modeling volatility of returns of Pliva stocks on Zagreb Stock Exchange, measuring volatility reaction on market movements and the persistence of

volatility, assuming asymmetric information influence. The volatility response to a large negative return is often greater than it is to a large positive return of the same magnitude, i.e. "bad" information seems to have a greater effect on volatility, than does "good" information. This asymmetry in different information influence is called leverage effect. Glosten, Jaganathan, and Runkle (1993) showed how to capture asymmetric volatility using asymmetric GARCH model.

2. UNIT-ROOT NONSTATIONARITY OF PLIVA RETURNS

Pliva returns are defined as natural logarithmic change in the closing price of stock for each trading day as:

$$r_t = ln\,P_t - ln\,P_{t-1} = \Delta ln\,P_t = ln\frac{P_t}{P_{t-1}}, \qquad (1)$$

where r_t is daily return rate.

Closing prices and returns of Pliva stocks are plotted during observed time period from 1 January 2003 to 30 December 2005, including 742 trading days. From Figure 1 it is obvious that Pliva return series is unit-root nonstationary. It means it follows random walk model without constant term such as:

$$ln\,P_t = \phi_1 \cdot ln\,P_{t-1} + \varepsilon_t. \qquad (2)$$

Unit-root nonstationary means that parameter ϕ_1 is equal to unity.

Finally, according to (1) and (2) the model can be rewritten as follows:

$$\Delta ln\,P_t = r_t = \varepsilon_t. \qquad (3)$$
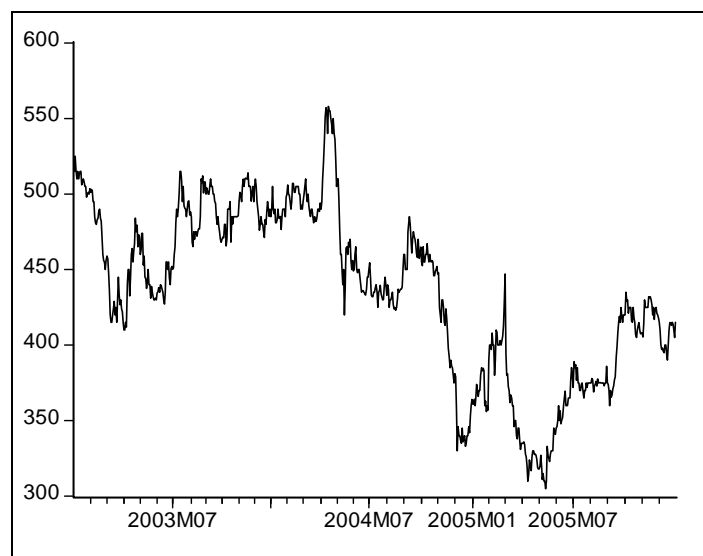
Source: www.zse.hr

Figure 1.   Closing Prices of Pliva on Zagreb Stock Exchange.

From expression (3) we can conclude that return series of Pliva stocks is random variable which is independent and identically distributed with zero-mean (Figure 2.).
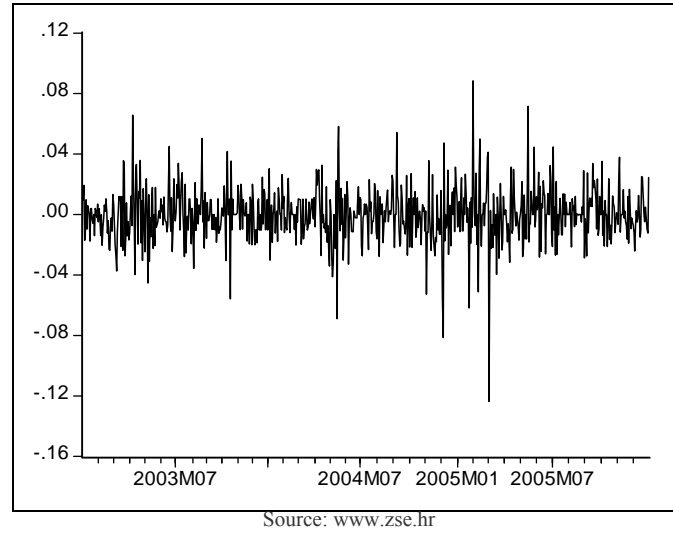
Figure 2.   *Pliva Returns on ZSE.*

Unit-root nonstationarity can be tested using Dicky-Fuller statistic, testing the significance of parameter β_1 in DF regression:

$$r_t = \Delta ln\, P_t = (\phi_1 - 1) \cdot ln\, P_{t-1} + \varepsilon_t , \qquad (4)$$

$$r_t = \beta_1 \cdot ln\, P_{t-1} + \varepsilon_t . \qquad (5)$$

In equation (5) parameter β_1 equals $(\phi_1 - 1)$. Dicky-Fuller regression is just an OLS regression of returns on the lagged of Pliva stocks. The hypotheses are:

$$H_0 ... \beta_1 = 0$$
$$H_1 ... \beta_1 \neq 0.$$

If null hypothesis is valid, it means that ϕ_1 is equal to unity. In other words series of Pliva stocks is unit-root nonstationary.

Table 1. Dicky-Fuller Testing of Pliva Returns.

Null Hypothesis: LNPRICE has a unit root

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.488176	0.5045
Test critical values:	1% level	-2.568086	
	5% level	-1.941251	
	10% level	-1.616412	

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(LNPRICE)
Sample (adjusted): 1/03/2003 12/30/2005
Included observations: 741 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNPRICE(-1)	-5.29E-05	0.000108	-0.488176	0.6256

S.E. of regression	0.017897	Akaike info criterion	-5.207031
Sum squared resid	0.237021	Schwarz criterion	-5.200812
Log likelihood	1930.205	Durbin-Watson stat	2.019330

Source: Tested according to data on www.zse.hr.

As it is obvious from the Table 1., at the empirical p-value 0.5045, hypothesis H_0 can be accepted, so the assumption of random walk efficiency is confirmed.

3. TESTING FOR ASYMETRY IN DIFFERENT INFORMATION INFLUENCE

Before we continue to create the model to capture volatility of Pliva returns, it is necessary to investigate if there is asymmetry in volatility clustering i.e. if there is leverage effect. The tendency for volatility to decline when returns rise and to rise when returns fall is called the leverage effect, i.e. "bad" news seems to have a more effect on volatility than does "good" news. A simple test to investigate the leverage effect is to calculate first-order autocorrelation coefficient between lagged returns and current squared returns:

$$\frac{\sum_{i=2}^{n} r_t^2 r_{t-1}}{\sqrt{\sum_{i=2}^{n} r_t^4 \sum_{i=1}^{n} r_{t-1}^2}} \tag{6}$$

If above autocorrelation coefficient is negative and significantly different from zero, then there is asymmetry in volatility clustering. The results of this testing are given in Table 2.

Table 2. Results of Testing for Leverage Effects.

		Lagged returns
Squared returns	Correlation	-.096**
	Sig. (2-tailed)	.009
	N	741

** Correlation is significant at 0.01 level.

Source: Tested according to data on ZSE.

It can be concluded that there is asymmetric volatility clustering of Pliva returns at p-value less than 1%.

In Figure 3. it has been also examined ACF and PACF of square returns to detect volatility in Pliva return series. Box-Ljung statistics is used for testing the significance of first k autocorrelation coefficients. Q statistic for testing the significance of first k autocorrelation coefficients is given by:

$$Q(k) = n \cdot (n+2) \sum_{i=1}^{k} \frac{\hat{\rho}_i}{n-i} \qquad (7)$$

Expression in (7) has asymptotic chi-square distribution with k degrees of freedom.

Hypotheses for Q statistic are defined as:

$$H_0 : ... \rho_1 = \rho_2 = ... = \rho_k = 0$$
$$H_1 : ... \exists \rho_i \neq 0 \quad for \ i = 1,2,...,k$$

Testing results are given in the table on figure 3.

Included observations: 742					Box - Ljung Statistic	
Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.172	0.172	22.071	0.000
		2	0.061	0.033	24.868	0.000
		3	0.010	-0.006	24.944	0.000
		4	-0.009	-0.012	25.007	0.000
		5	0.057	0.063	27.458	0.000
		6	-0.001	-0.020	27.459	0.000
		7	0.033	0.032	28.275	0.000
		8	0.003	-0.007	28.283	0.000
		9	0.003	0.003	28.291	0.001
		10	0.066	0.064	31.587	0.000
		11	0.001	-0.019	31.588	0.001
		12	0.076	0.072	35.912	0.000
		13	0.040	0.018	37.117	0.000
		14	0.073	0.061	41.137	0.000
		15	0.010	-0.023	41.217	0.000
		16	-0.012	-0.010	41.333	0.000
		17	0.014	0.007	41.472	0.001
		18	-0.021	-0.022	41.811	0.001
		19	0.004	0.000	41.826	0.002
		20	0.025	0.023	42.299	0.003

Source: Tested according to data on www.zse.hr

Figure 3.   Box-Ljung Testing.

At p-value even less than 1% alternative hypothesis can bee accepted, i.e. there is significant autocorrelation in squared return series of Pliva stocks for each time lag. It means that return series contain autoregressive conditional heteroscedastic (ARCH) effects.

4. ESTABLISHING ASIMMETRIC GARCH MODEL

ARCH(p) process of order p has been used to create nonlinear models for financial time series. To obtain more flexibility, a further extension, the generalized ARCH process was proposed by Bollerslev. Engle shows that it is possible to simultaneously model the conditional mean (expectation) and the conditional variance of financial time series.

Expectation of series return is calculated from the simple linear regression model, usually taking constant as regressor. If there is significant autocorrelation in returns, best fitted ARMA models are usually used, following Box-Jenkins procedure. In this research it has been found most appropriate to enter market return series of Crobex index as regressor.

In ARCH(p) models it is assumed that conditional variance is generated by autoregressive process, which means that forecast conditional variance as an AR(p) process is using squared of the estimated residuals. For example, ARCH(1) model in the simplest form can be written as:

$$r_{Pt} = r_{Mt} + \varepsilon_t$$
$$Var(\varepsilon_t) = \sigma_t^2 = \alpha_0 + \alpha_1 \cdot \varepsilon_{t-1}^2 + v_t. \tag{8}$$

First equation in above model is conditional mean equation, in which expectation of Pliva stock returns (r_{Pt}) is regressed to Crobex market return series (r_{Mt}) and ε_t are residuals or unexpected returns from linear regression. The second equation is conditional variance equation where v_t are white noise. It can be seen that ARCH(p) process captures the conditional heteroscedasticity of financial returns by assuming that today conditional variance is a linear function of past squared unexpected returns.

It has been shown that ARCH(p) process with infinite number of parameters is equivalent to much generalized ARCH process called GARCH. As the time lag increases in an ARCH(p) model it becomes more difficult to estimate parameters. Besides it is recommended to use parsimonious model as GARCH, that is much easier to identify and estimate.

GARCH(p,q) model adds q autoregressive terms to the ARCH(p) specification, and the conditional variance equation takes the next form:

$$\sigma_t^2 = \alpha_0 + \sum_{i=1}^{q} \alpha_i \cdot \varepsilon_{t-1}^2 + \sum_{j=1}^{p} \beta_j \cdot \sigma_{t-j}^2. \tag{9}$$

However, it is rarely necessary to use more than a GARCH(1,1) model, as in this case should be confirmed. Model has just one lagged error square and one autoregressive term:

$$\sigma_t^2 = \alpha_0 + \alpha_1 \cdot \varepsilon_{t-1}^2 + \beta_1 \cdot \sigma_{t-1}^2. \qquad (10)$$

But if there is asymmetric volatility clustering Glosten, Jaganathan and Runkle (1993) proposed asymmetric GARCH(1,1) model (GJR-GARCH(1,1) model) such as:

$$\sigma_t^2 = \alpha_0 + \alpha_1 \cdot \varepsilon_{t-1}^2 + \alpha_2 \cdot d_{t-1} \cdot \varepsilon_{t-1}^2 + \beta_1 \cdot \sigma_{t-1}^2 \qquad (11)$$

where d_{t-1} is dummy variable which takes two different values depending on "bad" or "good" news. However, if the news is "good" a residual from expected return will be positive, i.e. $\varepsilon_t > 0$, and if the news is "bad" a residual from expected return will be negative, i.e. $\varepsilon_t < 0$. So, to capture different effect of "bad" and "good" news to conditional variance, we enter dummy variable in expression (11) such:

$$d_{t-1} = \begin{cases} 1 & if \quad e_{t-1} < 0 \\ 0 & if \quad e_{t-1} \geq 0 \end{cases} \qquad (12)$$

By rewriting model in expression (11) as:

$$\sigma_t^2 = \alpha_0 + (\alpha_1 + \alpha_2 \cdot d_{t-1}) \cdot \varepsilon_{t-1}^2 + \beta_1 \cdot \sigma_{t-1}^2, \qquad (13)$$

it can be seen that "good" news from the previous day, when $d_{t-1} = 0$, influences conditional variance by parameter α_1 and a "bad" news from the previous day, when $d_{t-1} = 1$, effects conditional variance by sum of parameters $\alpha_1 + \alpha_2$. Therefore, if we find that parameter $\alpha_2 > 0$ and statistically different from zero, negative shocks will have larger effects on volatility than positive shocks, assuming that condition of nonnegativity and stationarity of the process is met.

5. VOLATILITY MODELING BY GJR MODEL

5.1. Mean Equation of Pliva Returns

Before modeling asymmetric volatility using GJR-GARCH(1,1) market return of Crobex index as regressor is entered in mean equation of Pliva returns, without constant term. The model is estimated and shown in table 4.

Table 4. Mean Equation of Pliva Returns.

Dependent Variable: r_t

Included observations: 742

Variable	Coefficient	Std. Error	t-Statistic	Prob.
market return	0.857806	0.051128	16.77776	0.0000

S.E. of regression	0.015239	Akaike info criterion	-5.528624
Sum squared resid	0.172304	Schwarz criterion	-5.522418
Log likelihood	2054.884	Durbin-Watson stat	2.030707

Source: Estimated according to data on www.zse.hr.

When modeling return series it is more convenient to measure goodness of fit using Akaike information criteria (AIC) and Schwarz criteria (SC), than the standard measures. Analytical expression of the mean equation is given by:

$$r_t = 0.8578 \cdot r_{Mt} + \varepsilon_t .$$ (14)

Consequently, according to the model (14) the expected returns of Pliva stocks are not constant over time. Beside, from the residuals, it can bee seen that variance is also time-varying, i.e. heteroscedastic. This confirms again that time-varying variance depends exclusively on the residuals. Therefore, further analysis is directed to the movement of residuals in order to choose the adequate form of GJR-GARCH model allowing precise prediction.

5.2. Residual Testing

More formal Lagrange multiplier (LM) test of ARCH process in volatility disturbances or unexpected returns given in (14) is performed. ARCH–LM tests whereas variance is homoscedastic or heteroscedastic using test equation on lagged square residuals as:

$$\hat{\varepsilon}_t^2 = \hat{\beta} + \sum_{j=1}^{m} \hat{\beta}_j \cdot \varepsilon_{t-j}^2 ,$$ (15)

where *m* is time lag, usually greater then 2.

From Table 5. it can be seen that variance is heteroscedastic because the square unexpected returns follows AR(1) process, i.e. parameter $\hat{\beta}_1$ is statistically significant at p-value of 0.04%, or even more, LM test value is significant at 0.067%, which means that variance is not constant.

Table 5. Testing of Heteroscedastic Variance of Pliva Returns

ARCH Test:

F-statistic	4.104947	Probability	0.006662
Obs*R-squared	12.17801	Probability	0.006798

Test Equation:
Dependent Variable: RESID^2
Included observations: 740 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000192	2.51E-05	7.627193	0.0000
RESID^2(-1)	0.106416	0.036860	2.887024	0.0040
RESID^2(-2)	0.057643	0.037010	1.557495	0.1198
RESID^2(-3)	0.010780	0.036864	0.292431	0.7700

S.E. of regression	0.000579	Akaike info criterion	-12.06475
Sum squared resid	0.000247	Schwarz criterion	-12.03985
Log likelihood	4467.959	F-statistic	4.104947
Durbin-Watson stat	1.999768	Prob(F-statistic)	0.006662

Source: Tested according to data on www.zse.hr

5.3 Model Estimation.

From the Q-Q plot of return series of Pliva stocks, as from the histogram it can be seen that return series is negative skewed with kurtosis higher than 3, which is most empirical finding in financial time series. It means that for most financial assets, the distribution function of returns is fat-tailed. From figures 4. and 5. it can be seen that fat-tail distribution has more weight in the tails than a normal distribution. Therefore, it was decided to estimate GJR-GARCH(1,1) model assuming that function of Pliva returns follows Student distribution, because in such cases Student distribution places a greater likelihood on large realizations than does the normal distribution.
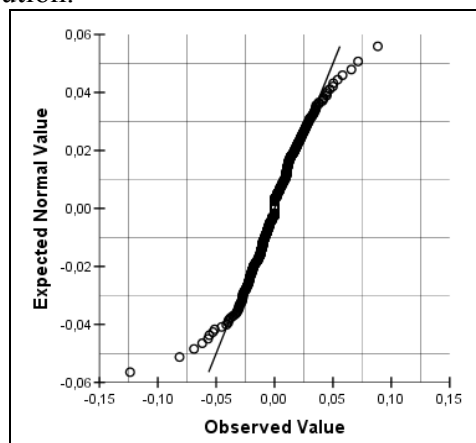
Source: According to data on www.zse.hr

Figure 4.   Normal Q-Q Plot of Pliva Returns.

Source: According to data on www.zse.hr
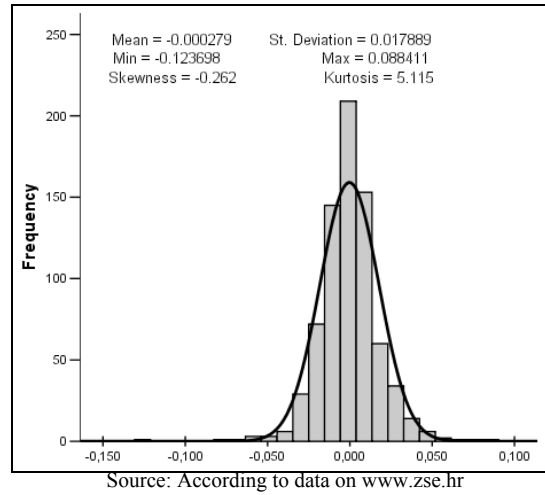
Figure 5.   Histogram of Pliva Returns with Normal Curve

Results of estimating GJR-GARCH(1,1) model with assumption that Pliva returns follows Student distribution are shown in table 6.

Table 6. Estimation of GJR - GARCH(1,1) Model Assuming Student Distribution.

```
                   Coefficient  Std.Error   t-value   t-prob
crobex_returns        1.06664     0.07091      15.0    0.000
alpha_0          1.04011e-005  5.460e-006      1.90    0.057
alpha_1          -0.000244986     0.02043   -0.0120    0.990
beta_1               0.889663     0.04218      21.1    0.000
student-t df          4.96595      0.9429      5.27    0.000
alpha_2              0.133413     0.05239      2.55    0.011

log-likelihood     2116.06954  MSE                     6.568
mean(con.var_t)    0.000249386  var(con.var_t)   3.04513e-008
no. of observations        742  no. of parameters          6
AIC.T              -4220.13908  AIC               -5.68751898
mean(pliva_ret.) -0.000277807  var(pliva_ret.)   0.000319589
alpha(1)+beta(1)     0.889418
```

Source: Estimated according to data on www.zse.hr.

In unrestricted estimated model parameter α_1 is no more significant at the level of 99%, which means it can be removed from the model because there is no evidence to accept that "good" information reduces the conditional volatility. It is usually necessary to ensure convergence of the process such that:

$$\hat{\alpha} > 0,$$
$$\alpha_1 + \alpha_2 \geq 0,$$
$$\hat{\alpha}_1 + \hat{\beta}_1 < 1,$$
$$0 < \hat{\beta}_1 < 1.$$

(16)

In this case $\hat{\alpha}_1 + \hat{\beta}_1$ is equal to 0.89 which defines stationary condition i.e. convergence of the process, even not far from long-memory model, when $\hat{\alpha}_1 + \hat{\beta}_1 = 1$.

Parameter $\hat{\beta}_1$ measures volatility persistence. The largest value of the coefficient $\hat{\beta}_1$ indicates that shocks to conditional variance take a long time to die out, so volatility is persistent. In this case parameter $\hat{\beta}_1$ indicates that there is persistence volatility, i.e. variance decays very slowly, because the degree of persistence is more than 88 percent.

Even so the positive influence of "bad" news on variance is confirmed, i.e. "estimated sum" of parameters $\alpha_1 + \alpha_2$ equals to 0.133168.

In the last step GJR-GARCH(1,0) model, without parameter α_1, has been estimated. The results are shown in table 7.

Table 7. Estimation of GJR - GARCH(1,0) Model Assuming Student Distribution.

```
                 Coefficient  Std.Error  t-value   t-prob
crobex_retutns       1.06637    0.06738     15.8    0.000
alpha_0          1.04171e-005 5.315e-006     1.96    0.050
beta_1            0.889406     0.03667      24.3    0.000
student-t df      4.96761      0.9334        5.32    0.000
alpha_2           0.133303     0.05128       2.60    0.010

log-likelihood    2116.06947  MSE                   6.57005
mean(con.var_t)   0.000249341 var(con.var_t)   3.04394e-008
no. of observations      742  no. of parameters            5
AIC.T            -4222.13894  AIC              -5.6902142
mean(pliva_ret.) -0.000277807 var(pliva_ret.)   0.000319589
alpha(1)+beta(1)   0.889406
```

Source: Estimated according data on www.zse.hr.

This sensitivity analysis confirmed that alpha 1 has not statistically significant influence on time-varying variance and all other parameters are almost identical.

On figure 6. there is forecast of Pliva returns conditional variance in and out of sample.

Diagnostic checking for estimated model includes investigating standardized residuals for model adequacy, which are defined as:

$$s_t = \frac{\hat{\varepsilon}_t}{\sqrt{\hat{\sigma}_t}} \ . \tag{17}$$

Source: According to data on ZSE
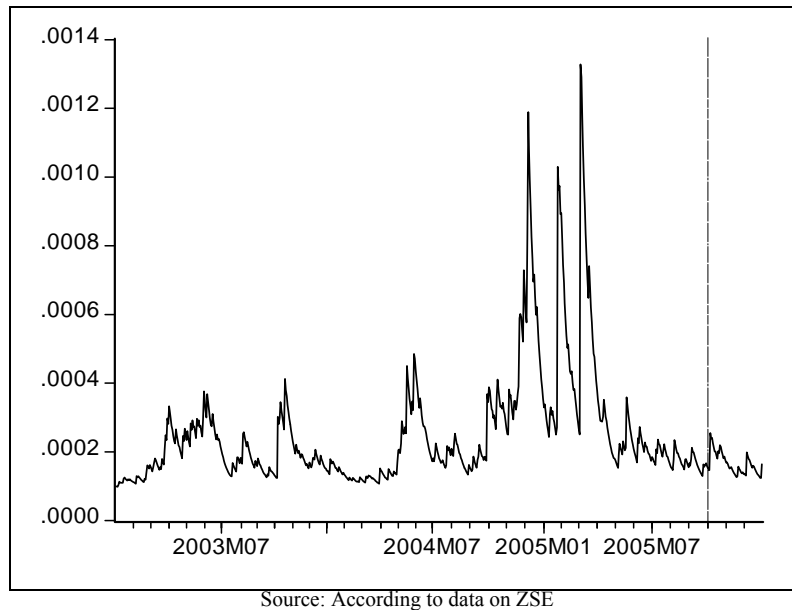
Figure 6.   *Forecast of Pliva Returns Conditional Variance In and Out of Sample*

Standardized residuals have shown that there is no more serially correlation in squares, without any GARCH effect left.

6. CONCLUSION

It is common that highly developed and liquid capital markets react intensively on a new information. This paper reveals that the Croatian capital market reacts to a smaller extent, which is shown on example of Pliva stocks as the most frequently traded stock from CROBEX index at Zagreb Stock Exchange.

Financial theory assumes that many economic time series do not have a constant mean and/or constant variance such as financial time series. These financial time series contain volatility which is time-varying. Even so, in practice volatility is often asymmetric, which means that financial return series react differently on "good" and "bad" information. Today, even although it is difficult to predict price variations of financial asset, different models are used to forecast daily volatility. To any asset holder it is important to forecast the rate of return and its variance over the holding period and to estimate the risk associated with holding a particular asset.

As the most appropriate models for those analysis ARCH (Autoregressive Conditional Heteroscedasticity) and generalization of the ARCH models (Generalized Autoregressive Conditional Heteroscedasticity - GARCH) are implied.

Distribution of Pliva returns is fat-tailed, therefore it's most appropriate to assume Student distribution. Total model parameters are estimated using iterative maximum likelihood method in GJR - GARCH(1,0) process.

Estimated model parameters (without alpha 1) are not only statistically significant, but also they have almost identical values as in model GJR - GARCH(1,1). According that, characteristic of Croatian capital market is absence of intensive reaction on "good"

information. Those behaviors have been noticed also in empirical studies on development capital markets, as for example in the NYSE Composite index 2002.

Finally it can be concluded that Pliva stocks volatility on Croatian capital market are under dominant influence of "bad" information, which was the basic aim to be shown by this paper.

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STAKEHOLDERS VS. SHAREHOLDERS: ECONOMIC CONSEQUENCES OF ALTERNATIVE CORPORATE ARRANGEMENTS[1]

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1. SHAREHOLDERS, SHAREHOLDER VALUE, AND STAKEHOLDERS

1.1. Two alternative concepts of the corporation and of its governance

1. The corporation belongs to stockholders and in their interest must be run. This conception finds its clearest expression in the shareholder value doctrine, according to which the corporation must be run in the interest of shareholders, creating value on their behalf. Thus the objective of management should be to maximize the market value of the company. This is in accordance, in particular, with the interest of minority shareholders, which should be adequately protected.

2. The corporation must be run in the interest of stakeholders. As the interest of stakeholders is various and contradictory, a compromise between the pursuit of the various interests should be found. This compromise could be trusted to managers (Berle and Means' view), to politicians, to an articulated management board, where the different instances may be represented, leading through their interaction and compromise to the specification of the overall interest of the company. According to the latter viewpoint the corporation can be seen as a community, and as such must be run. In the stakeholders' view may also be included the vision of the social responsibility of the firm, whereby society as a whole is a stockholder.

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[1] The paper is the outcome of a common interest in the issue of corporate governance and a common research project. The authorship of the first part is mainly to be ascribed to Alberto Chilosi, the authorship of the second part mainly to Mirella Damiani.

The different conceptions have their counterpart in different aspects of corporate law, from the composition and election rules of directors, to the publicity of societal documents, up to the determination of the rules that determine the framework of corporate life, concerning fusions and mergers, takeovers, and the legal framework of capital markets.[2] Of the two conceptions the first seems to be dominant, especially in the Anglo-Saxon environment. In a somewhat different perspective the various corporate institutional systems prevailing in different countries may be seen, whoever are the principals, as different methods to deal with the problem of the separation of ownership and control. The second part of the present paper is dedicated in particular to the consideration of the latter issue in the specific framework of the stakeholder view.

1.2 Corporate governance and shareholder interest

A possible manifestation of the doctrine of shareholder value lies in the gigantic increase in payments to managers under the form of options, or at any rate tied to the value of shares, particularly in the USA and in the nineties.[3] A possible explanation lies in the diffusion of the doctrine of shareholder value and in the increased awareness of the agency problem: with option payments shareholders' and managers' interests should be made to coincide, which would be especially valuable whenever share capital is dispersed. But there is also an alternative explanation: whenever ownership is dispersed, options make a good opportunity for managers to mask somewhat the taking advantage of their controlling power. According to a view, in Europe those in control of the corporation, be they top managers or blockholders, can benefit of a rent of control that is no lesser than in the USA, but, owing to lower protection of minority shareholders may take more obtrusive and fraudulent forms of self dealing (such as, for instance, asset stripping and transfer prices). This is borne out by the conspicuous additional payments for transferring ownership of packets of shares with control rights.[4] In turn, in the USA until recently option payments were not considered as cost items and therefore they did not reduce accounting profitability. (In recent times however some attempts have been made to take into account their fair value, through a mark-to-model methodology.[5]) Their value is not immediately detectable by the public, and in particular by shareholders, especially since in general options are issued "on the money".[6] At the same time they have a relatively more limited value for managers, considering risk differentiation, and thus they may be equivalent to fixed compensations of lesser value. On the other hand option values do not need to have immediate consequences on managerial incentives in so far as they depend on overall firm performance; managers can cash in options to their advantage even if their firm does not perform any better than the average, whenever the stock exchange grows.

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[2] For some discussion of the alternative disciplines see Aglietta, Rebérioux (2005, p. 52 f.), and the literature quoted there.

[3] See Krugman (2002); Damiani (2006), pp. 125, 209-212.

[4] Cf. Dick and Zingales (2004).

[5] According to a 1973 ruling of the Accounting Principle Board (APB, opinion 25) stock options must be included into the accounting books only for the difference between market price of shares and strike price. Subsequently, in 1993, the APB successor, the Financial Accounting Standards Board (FASB), advised registering all options at the fair market value, according to Black and Scholes formula. In 1995 this became compulsory (according to the FASB Statement 123). However, owing to obvious difficulties of that evaluation FASB has in practice allowed companies to carry on according to APB provision. Presently new rules have been introduced by FASB in June 2005. According to them the fair value of options must be recorded at the time of their concession. The whole issue is still debated and in the process of revision, as documented in Bulow and Shoven (2005).

[6] This means the purchase price of the shares is determined at the level the shares are valued by the stock exchange at the time when the option rights are conferred.

If it declines, options are often changed to new strike values (or the on the money date is fraudulently changed, as in the purported recent case of Apple).

On the whole it seems likely that huge managerial remunerations have more a distributional than an incentive effect. From an elementary economic theory viewpoint one may consider that the wealth effect of increasing managerial compensation could dominate the substitution effect, leading to lower managerial exertion. In short: **lean cats may run faster than fat cats.** Competition in recruiting the best managers could lead to a race towards increased average compensation, but this could result in a negative external effect, producing, because of the dominance of the wealth effect, reduced overall managerial exertion. This negative effect on X-efficiency could dominate the positive effect of allocating the best managers where the positive effect of their managerial capabilities is reputed the highest. Thus increasing the compensation of any top executive officer, for instance, could be associated with negative externalities, by putting pressure on the level of other top executive officers compensation, to the disadvantage of society as a whole, both because of distributional as well as X-efficiency considerations. To curb managerial compensation through direct ceilings could be unwise, since there is some argument in favour of having managerial abilities allocated through the market. But there is probably ample scope to pursue the objective by changing the regulations that affect the way through which managerial remunerations are determined. More power could be given to shareholders' (and especially minority shareholders') representatives (and possibly to shareholders themselves through some kind of electronic consultation). More transparency and information as to the actual elements of overall managerial compensation could be required, and possible tax loopholes on participatory incomes could be abolished.[7]

1.3 The alternative view, of the firm as a community of stakeholders, and the Nirvana fallacy

Even aside from the above distributional issues, there have been in the functioning of corporations and of financial markets many cases of foul play and instability, stock market roller coasters, and bubbles deflating suddenly to the dismay of mass of savers. Does this mean that the Anglo-American system, in particular, as founded on the extension of financial markets, and on shareholder value, must be refuted? After all, why should corporations be managed in the exclusive interest of shareholders, who are simply security owners? Thus, why not focus instead on the interest of the stakeholders, such as employees, local communities, political actors, or on the interest of the society as a whole, following Berle and Means plea (1934, pp. 352-57), or rather on the interest of the company as a going concern, as proposed by some?[8] But what is the interest of the company? How do we define it? After all the company is an immaterial entity, of organizational kind, not blood and flesh, even if it contains blood and flesh. As such, unlike individual stakeholders, the firm has no interests and preferences. And who is entitled to interpret and represent the various stakeholders' interests? The negative aspects of market and shareholder value oriented corporate governance are quite open and well known. But this does not mean that an alternative system of corporate management founded on stakeholders' interest could lead to better results, without considering in depth its possible overall consequences. As argued by Berle and Means, managers should become "a purely neutral technocracy, balancing a variety of claims by various groups in the community and assigning to each a portion of the income stream on the basis of public policy rather than private cupidity"(Berle and Means, 1934, p. 356), where

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[7] On the basis of an argument such as the above one could also envisage to increase the tax burden on high labour incomes whenever it is low (but this, as in the case of curbs on managerial compensation, could lead to some human capital flights, or to a reduction of net human capital imports).

[8] See Aglietta and Rebérioux (2005).

"public policy" could be the outcome of a program set forth by "corporate leaders", "for example … comprising fair wages, security to employees, reasonable service to their public, and stabilization of business" (p. 356). The obvious alternative is that such a "program" should be set through the political process.

But then the power of whoever is in charge becomes all the more arbitrary as the results of corporate activity cannot be assessed, unlike in the case of shareholder value, according to some kind of almost objective benchmark. In the name of stakeholders' interest one may justify nearly every course of action, such as *in primis* the maintenance of unviable enterprises that instead of creating value are value detracting, as the resources they use would be better employed elsewhere. But also financing politics and politicians; the appropriation by employees or of local communities of potential profits through higher wages, higher employment, or organizational relaxation; appropriation of company's resources by managers trough foul play (such as self-dealing and transfer pricing); or may be a bit of everything at the same time, in order not to do injustice to the different categories of "stockholders"; last but not least, simply, bad management. The consequences of stakeholder management can lead to tragic waste, whenever budget constraints are soft, and can be loosened by politicians for pursuing patronage, petty favouritism, or other localized political objectives. Of this in Italy we had many instances, including in particular the ultimate fate of mixed public-private ownership enterprises, where private shareholders had no decisional power, which rested on managers appointed by the government. On the other hand lawmakers' specific vision of the stakeholder view can be incorporated in the norms which regulate the organization and the functioning of companies, and the representation, and representatives' power, of the different categories of stakeholders in the organs of corporate governance (including such ad hoc measures as government's golden share in some perceived publicly relevant companies). From the exertion of the different powers, taking into consideration the overall legal and social framework, the way in which the interest of the different stakeholders are compromised will result.

1.4 Stakeholders' power and markets

But first of all we want to deal with a basic issue: why should managers be chosen by controlling shareholders rather than by the employees, or the trade unions, or, say, local authorities? A first motive is that companies are established by partners signing the original contract leading to firm incorporation (we apologize for stating this very obvious fact, but many discussions on the issue of corporate governance appear to almost forget it). If partners (i.e. shareholders) were denied the power to appoint and direct managers they would lack the motivation to found and finance the company. It is true that in many cases existing shareholders are not the original partners, but the possibility to eventually transfer their property rights in the firm, selling the shares of the firm on the open market ("liquidity"), constitutes a powerful inducement to found the firm in the first place. Whenever shareholder interest (and especially the interest of minority shareholders) is better protected the extension of financial markets is greater, and the financing of firms, as well as the control of the way they are managed, occurs in a relatively more transparent manner through the market. Selling firms in parts or in their entirety is easier. Hostile takeovers, whenever they are effectively possible, may perform as a disciplining device, and possibly lead to a more efficient management of resources and higher growth.[9]

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[9] On this, as on other specific points, one is referred for the more comprehensive treatment in the second part of the paper.

The opposite takes place whenever (as in the "continental" model) the protection of shareholder rights is lower, and financing through bank credit is more relevant, as financial markets are thinner. Of course bank credit has a number of possible advantages: better knowledge of the situation of firms and therefore better monitoring by bankers than by most shareholders, increasing returns from bank activity through pooling of information. But there are also perceived disadvantages, such as lesser propensity towards financing risky investments, among others because lower division of risk. (The cost of giving and managing a loan is certainly much larger than that of purchasing and keeping a variable amounts of shares. Any individual shareholder may have a modest amount of shares of any company, and shareholders are many. A company on the other hand usually deals instead with a very limited number of banks.) A consequence in continental Europe could be the lack of venture investors and business angels, available to finance risky investments with the aim of liquidate their investments by getting public. This is common practice in the USA, where it is made possible by the existence of a vast liquid financial market, which facilitates new underwritings. The limitations in equity financing may put a heavy toll on the creation of innovative firms. As Tirole (2001, p. 20) puts it, contrary to the polar case of established firms in mature sectors, "a high-tech start up usually generates little or no income for a long while and must therefore be financed mainly through equity; short- and medium-term debt would create serious liquidity problems." Moreover the option of going public favours the growth of successful enterprises. It can also be a smooth way to solve the problem of generational transition of family businesses, and of the need to more or less gradual transfer of corporate control, due to aging or reduced interest by the original entrepreneurs. In a shrinking world with high capital mobility, limitations to the extent and articulation of financial markets, and lower shareholder protection may result in a greater tendency to portfolio investment outflows abroad, especially towards countries where the contrary applies (example: the inflow of capitals into the American financial market that, among others, contributed to finance the speculative bubble of the late nineties; little power of attraction for foreign investments by Italy).
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1.5 Shareholder value and the social function of profit

But the fundamental motive in favour of the principle that companies must be managed in shareholder interest is that shareholder interest directs firms' activity towards profit formation, instead of alternative objectives, such as those we have mentioned above related to the pursuit of stakeholders interests, or simply of carrying on production for its own sake. And the pursuit of profit is in the interest of society as a whole, provided of course that it occurs in the framework of a whole set of legal constraints that take into account the external effects of economic activities, as well as countering market failures and preventing opportunistic and fraudulent behaviour. Moreover, as any other human activity, one should expect that in the pursuit of profit some kind of basic moral principles should be observed, even if their exact definition could be highly controversial. The same applies to etiquette and some sense of social responsibility (taking into consideration the consequences of one's action on everybody else) which should apply to corporate as well as to personal behaviour, and which not necessarily is contrary to the profit motive, at least in a long-run, repeated game, perspective. Basically, profit is the difference between measured revenues and measured costs. Even if this provides a very imperfect measure of the social benefit of an economic activity, still it is better to have a very imperfect measure than none at all, and no obvious alternative is available. Moreover profit provides a motive as well as, independently of the acceptance or refusal of the shareholder value principle, a source of the growth of the firm in a market economy. Profitability conditions the extent of external finance, be it from bank credit or from financial markets (Damiani, 2006, p. 136). Furthermore, whatever the

governance system, reinvested profits make on the whole the principal financial source of firm expansion. Some do infer from this that size and liquidity of the financial markets should not matter very much and that shareholder rights can be limited in corporate governance without much affecting the growth of the firms, since the greatest bulk of transactions involve existing shares changing hands rather than financing firms through issuance of new shares. Here we can make an analogy with the estate market. In the real estate market the bulk of transactions involve selling and purchasing existing estate, rather than building new one. At any moment of time the set of houses is independent of property rights (alike to the sets of companies and of physical capital): you can instantaneously change the nature and distribution of property rights in real estate (you could instantaneously change the extent of shareholder property rights) and in the short run the available housing stock does not change (the set of existing companies and of physical capital does not change). But in the longer run the amount and the quality of available housing changes a great deal, since changing property rights in real estate changes the incentives towards construction, maintenance and efficient allocation (changing shareholder rights changes the incentives for firms being created, managed and grow).

1.6 Employees as stakeholders, workers' interest, and the fallacy of composition

Let us consider a very clear cut case: Alitalia vs. Ryanair. Where does the social interest lie? Which one has acted in the best interest of workers (if we consider also the large number of workers who take advantage of cheap flights by Ryanair)? Alitalia is an emblematic case of a loss making and shrinking company, acting in the pursuit of some stakeholders' (in particular employees' and politicians') interest, destructing instead of creating value. Ryanair is a competitive, highly profitable, fast growing company, dramatically increasing the supply of cheap transport services for everybody concerned. From the above mentioned case one may well understand that workers' interest in general does not necessarily coincide with the interest of the employees of a given firm to have higher wages than elsewhere, more relaxed working conditions, and de facto tenure in the job. But would workers' interest in general be favoured by having employees' representatives as significant participants in the governing boards of any given firm? At first sight one would see an affirmative answer as obvious. But this would not take into consideration that in **every single firm** employees' representatives will presumably try to act in the best interest of the employees of **that given firm.** To think that from the pursuit of employees' interest of **any given firm** the pursuit of workers' interest in general follows is an example of the fallacy of composition. One may also note that in the prescriptions of the labour code employees' interests are taken into consideration and protected. It is not at all obvious that an additional defence in the area of capital governance would be suitable and useful. The pursuit of insiders' interests could lead to a slowing down of the growth of firms, as a consequence, say, of higher wages and lower profitability, and to worse allocative efficiency. This could be to the disadvantage of the outsiders who otherwise could take advantage of the growth of the firm, as a consequence of higher employment and a greater and cheaper supply of goods and services (Alitalia vs, Ryanair case). The result could be higher unemployment and lower living standards for the unemployed, and for those employed in firms with lower productivity and lower wages. To the extent that any employment reduction would be resisted, this could lead to the blockage of the mechanism that through the market (including the market of corporate control) leads to the transfer of resources, labour in particular, from where they are less productive to where they are more.[10]

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[10] Of course, owing to faulty market signals, the substance could be different from the appearance, But on this subject we may refer to what has been said above relatively to the function of profitability and the nature of market signals.

In the middle-long period at least, wage and employment dynamics may be negatively affected at the level of the economic system as a whole.

1.7 The issue of scalability and the weight of organized interests

Particular categories of insiders are top executive officers and control blockholders. Interventions to their advantage (as well as to the advantage of employees fearing that takeovers could result in redundancies) are those reducing the scalability of corporations (particularly, as is often in practice the case in Europe, if the takeover bid comes from abroad). In some countries the joining forces of organized insider interests, managers, blockholders, local authorities, employees, banks can lead to stagnation and bad utilization of productive resources.[11] The recent relative stagnation of German or Japanese economies could be partly explained in this Olsonian perspective, as a consequence of the concretion of pressure groups and organized interests.

A possible justification of restricting the possibility of hostile takeover bids is that if management is all the time exceedingly preoccupied with fending off the danger of hostile takeovers, and thus with current stock exchange values, this could lead to excessively shortening of time horizons, reducing interest and attention for long run programs.[12] This tendency is often considered a disadvantage of the Anglo-Saxon public company system in comparison to the continental or Japanese system of corporate control by insiders and banks. On the whole the empirical inquiries as to the effective results of takeovers are rather ambiguous and contradictory.

1.8 Possible positive consequences of employee representation in corporate governance bodies

Control by empowered employee representatives could contribute to hold in check the possible tendencies to opportunistic and self-dealing behaviour by top managers and control shareholders. Employee representation in governance bodies could also improve the quality of accounting documents, with positive consequences, among others, for fiscal transparency.[13] It could bring about a better climate of industrial relations, among others as a consequence of some greater identification of the interest of employees with the interest of the firm. There could be better trust that disclosing preferences and transmitting valuable information by employees would be used to their benefit too, and thus it would stimulate the transmission of valuable information inside the firm.[14] A consideration often heard concerns the protection, and thus stimulation, of employees' firm specific investments. Alternatively, the protection of firm specific investments by employees can be engineered on the one hand by the interest of the firm towards building a reputation, and on the other by labour law provisions, in particular those protecting employees against unfair dismissals. It is by no means obvious that firm

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[11] A way in which the interest of stakeholders can assert itself is by pressing for legislative intervention limiting companies' contestability and scalability. This has taken place towards the end of the eighties in the United States, after the Reagan administration devolved at state level the competences in corporate legislation, resulting in new legislation curbing hostile takeovers. This is translated into the drastic reduction in the percentage of hostile acquisitions in the nineties in relation to the eighties (cf. Damiani, 2006, p. 182).

[12] The stock exchange capitalization may be depressed not only as a consequence of ineffective management, but also because of contingent and even irrational factors not economically justifying as such a change of management, but leading to a hostile takeover anyway (the high transaction costs and the length of time involved may however reduce this possibility).

[13] Cf. with reference to the specific German case Jackson et alii, 2004, p. 41.

[14] Cf. Freeman and Lazear, 1994, pp. 15-16.

specific investments by employees, who could because of this aspire to a higher remuneration, would find adequate protection through employee representation in governance bodies (or for that matter through trade union representatives): Owing to possible egalitarian bias, or to the relative numerosity of employees with relevant and of those with little human capital, be it general or specific, employee representatives could be biased in favour of the interest of those who did not make, or made lower than average, specific investments, and, on this account, could not look forward to receive an additional remuneration.

1.9 The case for mandatory employee representation

The case for mandatory employee representation in corporate governance bodies may depend on the balance of two possibly contradictory effects. On the one hand some degree of involvement of employee representatives in corporate governance could be beneficial for overall productivity and value added creation, on the other it could affect the distribution of entrepreneurial surplus to the disadvantage of employers. If the second effect dominates the first, it will be in the best interest of employers not to establish employee representation in the corporate governance of the firm, if only in the form of workers' councils, while it could be in the general interest to establish it if by so doing overall firm surplus could be increased.[15] To this argument three types of objections could be raised. First, it could be difficult in practice to determine what degree, if any, of employee representatives' power, would maximize, or simply affect positively, overall firm surplus. In particular a general legal provision would not be able to discriminate between the different firm specific circumstances. Second, the previous argument against the enhancement of insiders power, that could be exerted to the detriment of outsiders and the general public, would still apply. Third, the reduction of employers' power may reduce the incentives to become employers. Supply of managerial talent and capabilities could (but not necessarily would) suffer, and this could affect, among others, the overall demand for labour.

1.10 In the end: what happens in practice?

Some research has been dedicated to the issue of the overall economic consequences of alternative systems of corporate governance (see in particular Gugler, 2001; Maher and Andersson, 1999), but the outcomes have been mostly contradictory and ambiguous, such as not to allow strong and definitive conclusions.[16] This could lead one to think that, in the case of corporate governance too, the performance of institutions depends on the social environment and that there is a tendency for institutions to adapt to the environment. Or, may be, that analogous results can be obtained through different institutional set-ups. Thus, the issue remains open and requires further study.

2. THE PRINCIPAL-AGENT PROBLEM IN A STAKEHOLDER CONTEXT

2.1 Incentives and labour relationships in a stakeholder model

Reliable measures of stakeholders' welfare are difficult to find, and the problem of providing explicit incentives to pursue the interests of a multiplicity of stakeholders seems to fit well, as noticed in Tirole (2001), with the *multitasks* agency model suggested by Holmstrom and

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[15] Freeman and Lazear (1994).
[16] A synthetic review of the empirical studies in this area, see Damiani, 2006, pp. 102, 104, 110, 123-126.

Milgrom (1991). In this model, a well-designed incentive system has to balance the distortions that may induce effort in one task but indifference and sub-optimal strain in some other occupations. These considerations gain relevance in a stakeholder perspective, since management may rationalize any action by invoking its impact on the welfare of some stakeholders, even if these actions worsen the welfare of some others. Since this balance is difficult, a *flat* compensation system may be preferable, and in this perspective, "there is some consistency between lenient views in the French, German, and Japanese populations toward the stakeholder society and the low power of the managerial incentive schemes in these countries" (Tirole, 2001, p. 26). The following table shows that in the U.S., i.e. in the more shareholder-oriented system, the CEO's compensation is less flat than in the other countries:

Table 1 Flat CEO's compensation and stakeholder society: variable remuneration as percentage of total remuneration in some countries

	Variable CEOs' remuneration component			
Countries	1996	2001	2003	2005
France	29%	26%	29%	41%
Germany	12%	36%	51%	52%
Italy	24%	33%	30%	35%
Japan	8%	18%	19%	22%
UK	30%	30%	34%	35%
US	47%	61%	63%	62%

Source: Towers Perrin, 2001-2002, 1997, 2005 "Worldwide Remuneration Data

In any case, even by adopting a flat remuneration system, some critical objections on the feasibility of the stakeholder view remain and the existing literature seems to present two opposite views. As Jensen (2001) writes:

" Whereas value maximization provides corporate managers with a *single* objective, stakeholder theory directs corporate managers to serve '*many masters.*' And, to paraphrase the old adage, when there are many masters, all end up being shortchanged. Without the clarity of mission provided by a *single-valued objective function*, companies embracing stakeholder theory will experience managerial confusion, conflict, inefficiency, and perhaps even competitive failure. And the same fate is likely to be visited on those companies that use the so called 'Balanced Scorecard' approach—the managerial equivalent of stakeholder theory—as a performance measurement system."

Following Jensen, it may be argued that corporate governance arrangements that give 'voice' to employees, as codetermination in Germany, increase agency costs because they dilute the board's power, promote collusion between management and employees and impede the emergence of a dispersed ownership.

On the other hand, the potential strength of a 'broad' view of the firm is advocated. In this alternative perspective "the multiple and hard-to-measure missions of management" (Tirole, 2006, p. 59) are obtained by the same institution of a supervisory board, where owners and employees exert their monitoring function on management. Here, again, the German experience becomes a benchmark model, but in this perspective this experience confirms the success of the 'stakeholder' system of corporate governance, as evaluated in Hall and Soskice (2001a). A success that may be attributed, in a more comprehensive analysis, not only by the *sole* device of a two-tier board, but also by the crucial role played by some *institutional complementarities*, as we will see below.

Let us briefly see how the two different radical views may be supported by simply making a short excursion of some selected studies that are representative of the pro and cons of a stakeholders' view.

The thesis advanced by Jensen (2001) has been proved with different tools, as the sociopolitical analysis proposed by Pistor (1999), the legal perspective advanced by Roe (1999), or the econometric evidence shown in Gorton and Schmidt (2004), just to name some of the few but prominent contributions playing in the arena.

In the sociopolitical perspective, Pistor (1999) suggests that under codetermination, labour representatives may be very active actors in *extraordinary* situations, such as those calling for takeover resistance, while exerting a less active role in *day-to day* governance. Employees' representatives do not "specialize" in business strategies, but only in workplace and employment matters, notwithstanding the training programs to support their professional competence, as those undertaken in Germany by the National Federation of Labour Unions. In this context where multi-player coalitions are present, the option 'voice' remains partly unexploited and a room for managerial failures is left open. "The net beneficiaries are those who ought to be controlled: the company's management" (Pistor, 1999, p. 192). Furthermore, the voice of labour may be not a single voice, as the mechanism of worker representation reveals conflicts of interests between white and blue collars, who in Germany elect in separate sessions their delegates for the designation of the supervisory board. Without speaking of the contrast with representatives of labour unions who are elected by the same delegates upon proposal of the workers' organization. In sum, the contrast hidden behind the labour's voice raises the cost of collective decision-making, without assuring significant benefits for the absence of a professional competence of this voice.

Analogous skepticism can be found on legal grounds by Roe (1999), an impartial expert who has devoted much of his academic research in evaluating the parallel defects of the shareholder system prevailing in the US (see Roe, 1994). In his contribution of 1999, the emphasis is put on showing how the German Boardroom obstacles the functioning of an efficient securities market, thus determining infrequent Initial Public Offering (IPO) and the presence of big blockholders, with the result that German firms remain "semiprivate companies". One of the main reasons is that diffuse shareholders may be unable to ally and to create a balance of power as a counterweight to the employee block and a German securities market does not develop (Roe, 1999, p. 194 -195).

And finally, let us consider the micro econometric evidence, after having noticed that up to recently a rigorous economic analysis has been missing, and there has been little quantitative literature devoted to scrutinize the main effects of codetermination. Gorton and Schmid, two authors who have devoted a lot of their research on "class struggle" inside the German firms (as the title of one of their works suggest[17]), in a recent study pose two broad questions that focus on the heart of the problem, at least in an economic perspective. First, does high employees' representation on the supervisory board affect the performance of the firm, possibly because labour alters the firm's objective function? Second, are shareholders able to offset these distorsions - away from maximizing shareholder wealth—by taking countermeasures in attempting to offset the voting power of employee representatives? The authors try to offer some answers to both questions by studying a sample of the 250 largest Germany public companies for the years 1989-1993. What they find is that, when labour and

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[17] See Gorton, Schmid (2000).

capital have an equal representation on the supervisory board (1/2 seats each), the companies' market to book values are lower in comparison to situations when labour representation is lower (1/3 of seats). And the losses do not reduce overtime, but range from 21% in 1989 to 43% in 1992. A rationale behind these results is that employees wield enough power to obtain private benefits of control and pursue this strategy by altering managerial remuneration, as confirmed by the weaker link, in cases of more extensive labour participation, between executive managerial compensations and company results. Moreover, employees' representatives aim at maintaining a high staffing level and wield resistance to corporate restructuring. On their part, shareholders try (unsuccessfully) to adopt countermeasures, by linking supervisory board compensation to firm performance and by leveraging up the firm, thus increasing the *cost* and *probability* of bankruptcy failures, but these countermeasures end to be "costly and imperfect."(Gorton and Schmid, 2004, p. 895).

Let us now consider a more optimistic view following the comprehensive approach followed by Hall and Soskice (2001a) and by the several contributes collected in the book they have edited and devoted to analyze the *varieties of capitalism* around the world (Hall and Soskice, 2001b). To briefly reconsider these studies, it is important to remind the relevance of the *relational* view of the firm, as the quality of the relationships the firm is able to establish is a crucial ingredient of its *dynamic capability* (Teece and Pisano, 1998). From this perspective, as suggested by Hall and Soskice (2001a), a *core distinction* may be traced between two different kinds of relationships that seem to prevail in different systems, the *coordinated* market economies and the *liberal* market economies. A distinction that shows some significant overlaps, as we will see, with the difference between a 'broad' and a 'narrow view' of the firm.

In coordinate market economies, as in the German case, extensive relational and incomplete contracting entails more reliance on collaborative relationship and on the exchange of private information. This is coherent with the view that "when complete contracts are too costly or impossible, parties settle for relational agreements that frame their relationship over time" (Morroni, 2006, p. 207). In Germany, this design is mirrored in moderate wage differentials across firms and industries that reduce the propensity of employees to change jobs, thus contributing to a compressed wage structure and to long employment tenure. The employment stability is implemented, at least at a first glance, through the functioning of two relevant labour market institutions. The first one is the industry-level wage bargaining that prevents intra - industry wage differentials and generates low spreads by firm size, thus lowering voluntary separation rates. The second one is the legal institution of codetermination at the level of the supervisory board and works councils. These arrangements, as shown in Freeman and Lazear (1994), enhance the efficiency of the firm by permitting the flows of communications between management and workers, but give *voice* to employees in their demand for lower layoffs and lower labour shedding in case of adverse shocks. In this framework, where an implicit empowerment of labour is provided, the interplay of wage and labour setting rules reveals a crucial factor (FitzRoy and Kraft, 2004). Indeed, as the study of Milgrom and Roberts (1990) has shown in a general context, insiders' involvement may generate lobbying and 'influence' costs, with negative side effects that outweight the efficiency gains obtained from better communication. One of these potential drawbacks could be a higher bargaining power over the distribution of the company results, with sub-optimal outcomes. It has been well clarified by Freeman and Lazear (1994). Assume, following the two authors, that assigning control and information rights to workers' councils increases firm's rent over the level obtained without these organizations, but assume also that these rights affect the division of rents. A clear trade off arises as the firm observes that a higher

works council power may enhance productivity and rents (a larger pie), but reduces its own share (a smaller slice). The firm' s choice is a lower sub-optimal level of codetermination since it cannot fully appropriate all the benefits from collaborative labour relations. An escape and solution to the dilemma could be to separate the factors that affect the magnitude of the surplus from those that have an impact on its division. As underlined by FitzRoy and Kraft: "the designers of co-determination seem to have been aware of these problems, because collective bargaining is formally quite separate from all aspects of codetermination (FitzRoy and Kraft, 2004, p. 6). Unlike Germany, in Japan long- term relations are enforced by long term incentives of internal promotion and by returns of seniority that magnify the high commitment of employees to company success and promote lifetime employment, thus encouraging firm-specific investments in human capital. By contrast, in Germany, as is well synthesized in Jackson, Höpner, Kurdelbusch (2006, p. 89), "training takes place within a multi-player and quasi-public system of occupational training. These skills are portable and related to broad occupations, rather than firm specific".

A synthetic representation of the different wage and employment setting rules in coordinated market economies, as Germany and Japan, with respect to those adopted in liberal market economies (US and UK) is offered by the following table:

Table 2: Comparative features of labour relations in Coordinated Market Economies (CME) and Liberal Market Economies (LME). Stability of employment, wage setting system and wage spread

Countries	Separation rate as % of new hires	Employment tenure (average tenure-years)	Bargaining level (dominant form)	Wage spread (ratio of the 9th over the 5th decile)	Ratio of remuneration of manual workers to CEO (%) (*)
CME					
Germ.	27.2	9.7	sectoral	1.64	8.8
Jap.	n.a.	11.3	sectoral	1.73	9.5
LME					
US	65.9	7.4	company	2.22	3.2
UK	42.9	7.8	company	1.99	
Years	1990s	1995	1990s	Early 1990s	2000

Sources: OECD, Employment Outlook (various years); European Commission (2003), Towers Perrin (2005), "Worldwide Remuneration Data", (*) manufacturing

What complementary institutions are necessary to implement the stakeholders-labour governance? Are only the labour regulation rules sufficient to explain the success of German and Japanese firms? Here the argument of the role played by institutional complementarities suggested by Aoki (1994), reveals to be decisive. This reminds us that the efficiency of one institution increases the efficiency of the others. Indeed, in coordinated market economies, long term employment relationships call for a " financial system capable of providing capital on terms that are not sensitive to current profitability. It suggests that nations with a particular type of coordination in one sphere of the economy should develop complementary practices in other spheres as well" (Hall and Soskice, 2001a, p. 18). Also, the option *voice* which sustains long term relationship, is related to concentrated ownership which permits to overcome the free-riding problem of dispersed ownership, since large investors are able and motivated to exercise control by obtaining significant gains by their monitoring activity. In addition inter-firm relations are relevant and are achieved by cross-shareholdings in Germany, where more than 40% of total shares of companies are owned by other non financial enterprises (see Table 3), or on business networks built on keiretsu organizations in Japan.

Moreover, bank monitoring may be a relevant element in *relational financing*. For instance, in Germany, banks and client firms maintain long term relationships since banks have access to information on firm's financial conditions (Edwards and Fischer, 1994). Thus they are able to distinguish between good and bad projects and may renegotiate with failing, but efficient firms in difficulties, thus avoiding their premature liquidations and favoring their restructuring.

Table 3: Comparative features of corporate governance in the 1990s. Concentration of ownership and of voting rights, role of banks, inter-firm relations

Countries	Concentrated ownership (average % of shares owned by the first 5 largest owners) (a)	Largest voting block (median) (b)	Role of banks as 'principals' (a)	Inter firm relations (percentage of common stocks owned by other non financial enterprises) (c)
CME				
Germany	41.5	57.0	33.0	42
Japan	33.1	n.a.	38.5	22
LME				
US	25.4	5.4-8.6(*)	2.2	0
UK	20.9	9.9	0.7	1

Sources: (a), Prowse (1995); (b) Barca and Becht (2001, table 1.1) data for non financial enterprises, (c); OECD (2003). (*) the figures refer, respectively, to NYSE and NASDAQ

Summing up, the coexistence of concentrated ownership, long term oriented strategies, bank financing, inter-firm relations, industry- level wage bargaining, small wage dispersions are all significant aspects of *varieties of capitalism,* where relevant forces are present capable to implement long term relationships and the interests of a group of stakeholders. Furthermore, these coordinated economies are more oriented towards investing "in *specific* and *co-specific* assets - i.e. assets that cannot readily be turned to another purpose and assets whose returns depend heavily on the active cooperation of others", as Hall and Soskice suggest (2001a, p.17). It is not by chance, as documented by the European Patent Office, that German firms specialize in those sectors (mechanical engineering, product handling, transport, machine tools) characterized by incremental innovation, while lagging behind the US in fields (biotechnology, semiconductors, telecommunications), where innovation are more radical and represent strong discontinuities. By contrast, liberal market economies, featuring short-term relationship, tend to invest more extensively in *switchable* assets (i.e. assets whose value can be realized if diverted to other purposes). In this context, institutional complementarities work in the opposite direction. In these economies, corporate governance arrangements permit to investors who seek an immediate assurance of return of their assets to freely exert the option *exit*. These features are complementary to analogous market channels to obtain finance and are parallel to market relations and arm's - lenght exchanges of labour services. In these economies, the distinctive features of labour relationships are wage patterns linked to labour market conditions, decentralized company level bargaining, and finally no restrictions on labour adjustment. Moreover, market failures, as moral hazard and selection adverse problems, are, at least partially, solved by *explicit* incentives such as pay-performance systems or employee share ownership schemes that are introduced to enhance wage flexibility. A parallel interpretation of these findings is that remuneration schemes, as tools for corporate governance, emerge as an *indirect* control device under conditions of imperfect observability (Holmstrom, 1979), and therefore, when other *direct* control measures are absent. This proposition fits well with observed phenomena, as shown in the following table:

Table 4: Remuneration and incidence of incentive systems

Countries	Remuneration of CEOs- (US=100) 2005	Percentage of firms that offer long term incentives to CEOs- 2005			Percentage of firms that use Profit Sharing (PS) and ESOP 1990s
CME		Stock options	Restricted stocks	Bonus shares plans	
Germany	47.1	40	5	10	PS. 13% ESOP 4%
Japan	44.2	35	0	0	PS. 13% ESOP 3%
LME					
UK	54.4	80	0	60	PS. 40% ESOP 23%
US	100	85	35	35	PS. 20% ESOP 7.7% *

Sources: Towers Perrin, 2005, "Worldwide Remuneration Data" and Equity Report, OECD (2003); Poutsma (2001) and Kruse (2002); * percentage of private sector employees participating in ESOP schemes

The different remuneration *levels* among countries confirm that managerial incentives play a crucial role especially in Anglo-Saxon systems, since direct monitoring and incentive payment systems emerge as close substitutes. Furthermore, the *composition* of incentive schemes, as documented in the last Equity Report by Towers Perrin, shows that the US system tends to rely more on performance-based rewards and on long-term incentive plans, as stock options or restricted stock, which represent *explicit incentives* to pursue firms' successful strategies. These payment systems, as shown in the recent literature on executive compensation summarized in Damiani (2006), have also been an essential *selection* and *retention* tool in managerial labour markets, a very strategic tool in a context where short-term relations tend to prevail (Ittner, Lambert and Larcker, 2003; Oyer and Schaefer, 2005). These considerations may explain why their relevance is still prominent today, even after the scandal and managerial failures that have triggered the corporate governance reform undertaken in 2002 (Sarbanes Oxley Act). Moreover, their diffusion is accompanied by employee participation in profit and ownership, as well documented in Poutsma (2001) and Kruse (2002), as shown in Table 4.

However, if top executives exert their influence on compensation committees and adopt rents seeking behaviour, managerial rewards becomes not a solution, but a *manifestation* of agency problems as shown in Bebchuk and Fried (2003). In this context, all the other subordinate workers may share rent seeking behaviour and a pervasive inefficient compensation structure tends to prevail. This has serious negative implications, as suggested by Baker, Jensen and Murphy (1988): "The effect of structuring CEO contracts that are independent of performance is likely to cascade down the hierarchy - each successive layer has fewer incentives to structure effective contracts than the prior layer. The absence on incentives is pervasive, and it's not surprising that large organizations typically evolve into bureaucracies" (Baker, Jensen and Murphy , 1988, p. 614).

In Germany and Japan, where management control is easier and less expensive and lifetime commitment is higher, executive rewards are lower. Moreover, in these countries the lower *level* of managerial salaries is accompanied by a *weaker link* to company performance (Table

4) and the wide diffusion of stock options and bonus shares paid not only to CEOs but also offered to all 'agents' is absent. Furthermore, the analysis of the German 100 largest companies shows a clear positive correlation between shareholder value orientation of these enterprises and incentive orientation of their payment schemes for non executive employees (Jackson, Höpner, Kurdelbusch, 2006, pp. 106-112). This wide diffusion is, on the other hand, very often recorded in the US and the UK, where Profit Sharing Schemes and ESOP Plans[18] are paid to a broader base of dependent employees (Table 5).

The previous analysis confirms that the diffusion of forms of financial employees' participation has not been a part of a "package of participation" in control rights. This sort of bifurcation between *payoff* and *control* rights has been well documented by the vast participation literature (Uvalic, 1991; Poutsma, 2001; Pérotin and Robinson 2003; Uvalic, 2006). As stressed in Uvalic (2006), "although traditionally the main arguments in favour of financial participation were motivated by objectives such as greater equality in the distribution of income and wealth, and improving relations between workers and capitalists, today these schemes are considered as part of a new culture of industrial relations based on innovative managerial strategies and more flexible remuneration policies, which should ultimately result in increased enterprise efficiency" (Uvalic, 2006, p. 50). The majority of studies in this field have shown how the wide diffusion of various forms of financial employee participation has performed with the main aim to enhance wage flexibility, to achieve productivity gains and to implement a risk-sharing device. This explain why they have found a natural space in liberal market economies, more than in coordinated market economies. On the other hand, there are not conclusive results on the positive impact of a larger involvement of employees in decisional processes in terms of productivity gains, and only some studies (see Conte, Svejnar, 1990) are capable to confirm the positive interactions between the various forms of participation. In any case, the debate on advantages and disadvantages of employee financial participation, as overviewed in Uvalic (2006), has mainly concerned issues such as workers' incentives, wage moderation, promotion of firm-specific human capital investments - via long-term labour contracts, lower intrafirm conflicts - less inequalities, risk sharing properties. But it must be admitted that this is a clear 'shareholder' perspective, one in which theorists and econometricians have the hard task to prove that "wage premiums pay by themselves".

On the contrary, in a 'stakeholder' view one of the main claims should be that "if employees have no input into decision, they are exposed to moral hazard on the part of managers, who may make decisions that affect pay or wealth negatively. The problem is potentially more severe with employee share ownership than with simple profit sharing…" (Pérotin and Robinson, 2003, p. 11).This is the preferential attitude declared, in 2004, by the OECD Principles of Corporate Governance where it is said that "the corporate governance framework should permit performance enhancing mechanisms for stakeholder participation"(OECD, 2004, section IIIc). To what extent this participation has been reached may be, at least partly, assessed by the diffusion of the various forms of participation all over the countries, as well documented in the 2003 OECD survey, one of the few that devotes a section to describe the diffusion of stakeholder protections.

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[18] As clarified in Uvalic (1991, p.10) ESOPs "… involve a bank (or other lender) lending money to an employee benefit trust, which acquires company stock that is allocated by periodic payments to each employee's ESOP account".

Table 5: Control rights and payoff rights of employees

Countries	Employees appoint some board members (a)	Mandated Works Councils Statutory threshold (b)	Decision making power (c)	Diffusion of financial participation schemes % of private and public fi8rms with Employee Share Ownership Plans (ESOP) and Profit Sharing (PS)
Austria	Yes	5 employees*	Personal matters	ESOP: small number of ESOP PS: n.a.
Belgium	No	100 employees	Work regulations, recruitment, dismissals, welfare and holidays	ESOP: Selective application in specific companies PS: mainly by multinational firms
Denmark	Yes	35 employees	Working conditions, personnel policy and training	ESOP: 6% PS: 10%
Finland	No	30 employees	None	ESOP: n.a PS: small number of companies
France	No	50 employees	Management of all company welfare schemes	ESOP: 7% PS:57%
Germany	Yes	5 employees*	Social welfare, personnel policies and economic affairs	ESOP: 4% PS: 13%
Ireland	No	No	n.a.	ESOP:4 % PS: 8%
Italy	No	15 employees	-	ESOP:3 % PS: 4%
Japan	No	No	n.a.	ESOP:3 % PS: 13%
Netherlands	Yes	50 employees	Rules concerning employees benefits, working hours, holidays, health and security, recruitment, dismissals and training	ESOP: 3% PS: 13%
Spain	No	50 employees	Collective agreements	ESOP: 10% PS: 8%
Sweden	Yes	No	n.a.	ESOP: 2% PS: 20%
UK	No	No	n.a.-	ESOP: 23% PS: 40%
US	No	No	n.a.	ESOP: 7,7%* PS: 20%

Sources:(a), (b), (c): OECD (2003, pp. 47-50); (d): EPOC Survey (1996), Poutsma (2001, p. 57) Kruse (2002, p. 67); * percentage of private sector employees participating in ESOP schemes.

2.2 Conclusion

In shaping governance and labour management in a stakeholder society, a whole set of institutional factors, much more than the sole codetermination arrangements, are shown to be crucial. In this context the role of institutional linkages and complementarities may offer a fruitful line of research, as this perspective leaves a natural space to reconsider the full range of opportunities left to labour coalitions with the other two actors, capital and management. After all, as noticed by Pagano and Volpin (2005, p.841) "*Labor economists* view industrial relations as being shaped by the conflict between workers and management. *Financial economists* view corporate governance as the outcome of the diverging interest of shareholders and management. Actually, these two conflicts are present simultaneously and interact". Indeed as seen in the previous sections, the comparison of the various forms of capitalism reveals the potential drawbacks when workers are natural allies of managers and become accomplices of their misconduct. In this scenario, the traditional conflict between capital and labour may be replaced by a new conflict between *strong* insiders (management, employees, blockholders) and *weak* outsiders (small shareholders). In this scenario, the 'broad view' of the firm does not represent a remedy to externalities and sub-optimal results, but on the contrary it may be at the origin of new failures. In any case, as noticed by Coffee (2005), in the last decade, the different economies, the coordinated market economies as well as the liberal market economies, have witnessed different forms of failures and scandals. However, they have shared a common feature represented by a bad performing function of their respective governance gatekeepers. Enron and Parmalat, from their respective sides, offer dramatic but instructive lessons. In this scenario, where the eventual convergence[19] toward a unique system of corporate governance may represent the menace of a convergence toward a uniform kind of failures, labour may assume a potential role as a *natural guardian* of firm accountability. Control by empowered employee representatives could contribute to mitigate opportunistic behaviour and rent seeking by managers and to reduce private benefits of control accruing to blockholders. After all, if we conceptualize the firm as a set of *multilateral* contracts over *time*, and admit that employees sign implicit and explicit agreements with the other parts, their rights to bargain over the distributive effects of these agreements must be acknowledged. In this context, the condition of a *fair* contract is required. As Freeman suggests in his ´stakeholder interpretation' of corporate governance, one device for obtaining fairness is the Rawlsian 'veil of ignorance':

> *"Our common sense notion of fairness is illustrated by the problem of dividing a cake into two pieces for two individuals. The 'fair' solution is for one individual to cut the cake and choose last, or put another way, to cut the cake without knowing which piece he will receive in the end... Interpreting fairness as taking place behind the veil of ignorance is consistent with the spirit of transaction cost economics, since it must take into account both ex post and ex ante perspectives. It would be irrational for stakeholders to give up the ability to participate in monitoring the actual effects of the firm on them... "* *(Freeman, 1990, p. 357).*

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[19] The 'convergence' issue is still controversial and open to debate; for instance, for the German case Jackson, Höpner, Kurdelbusch (2006) stress that "a more marketized role of capital has led to changes toward marketized employment relations in Germany". However, the author stress that "the diffusion of shareholder value has not undermined the core institutions of German industrial relations, namely codetermination and collective bargaining" (pp. 117-118).

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THE COMPETITIVE ADVANTAGE OF A FIRM: WHAT IT IS AND WHAT IT IS NOT

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1. INTRODUCTION

The successful integration of firms from transitional economies into the European Union market mostly depends on these firms' competitive position vis-à-vis both its domestic and foreign competitors. Therefore, regardless of the prevailing stream in the management theory the process of ensuring a firm's competitiveness is and always has been the nucleus of the work of firms' top managers. After the introduction of the so-called stakeholder theory (Freeman, 1984) more and more authors adopted a 'multi-stakeholder' view of a firm, recognizing that owners are only one of many interest groups in and around a firm. At the same time a considerable shift from strictly profit-oriented firms to more socially responsible and ethical firms took place. In the paper we build on presumption that even in this new business environment a firm's primary strategic goal needs to be its long-term competitive advantage. This can be supported by empirical studies of many authors (Buble et al., 2003; Pučko, 2002; etc.) who show that practicing social responsibility and business ethics is more often a strategic goal of stable and successful firms.

Although the positive link between a firm's competitive advantage and its performance is too often simply taken for granted (some authors even treat both constructs as synonyms), it must be noted that competitive advantage and superior performance are actually two different things. Given the great importance of the topic it is necessary that both theory and practice correctly understand the basic concepts related to a firm's competitiveness. The purpose of this paper, which builds mainly on a detailed analysis of the related literature, is to thoroughly and completely elucidate the main conceptions related both directly and indirectly to competitive advantage at the firm level. In so doing, we wish to contribute to a clearer understanding of this wide scientific field. To meet these objectives, we first define competition, competitiveness, competitive advantage and sources of competitive advantage. After introducing these basic concepts, we continue with a short overview of the different levels at which competitive advantage can be discussed. The paper's central part provides a detailed argumentation on how the fundamental forms of competitive advantage should be classified. At the end, we conclude by proposing some fundamental conditions that need to be met if a firm is to build up a solid competitive advantage. By comparing our thoughts with the theoretical and empirical findings drawn from the literature, we believe some new insights can be offered to scholars and researchers in the area of competitiveness.

2. COMPETITION, COMPETITIVENESS, COMPETITIVE ADVANTAGE AND SOURCES OF COMPETITIVE ADVANTAGE

Competition can be defined as either a process or a state. The former understanding is closer to classic economic theory, whereas the second is closer to the neoclassical one. If competition is understood dynamically, i.e. as a process, its essence can be described as a competitive battle. Even in the 18th century Adam Smith saw competition as a contest by virtue of which two suppliers are forced to sell more cheaply than they would have sold had there been only one of them in the market (Campbell, Skinner, 1976, pp. 361-362). Competition as a competitive battle has also been discussed by several other well-known authors. Marx (1976, pp. 165-172), for example, saw competition as the struggle for existence between capitalists, which are (in order to survive) forced to reduce their costs and prices. Similarly, Capoglu (1991, p. 6) understood competition as a survival process in which firms must constantly innovate. Schumpeter also emphasized the role of innovation. More specifically, he explained the competitive battle through the development of new technologies, new sources of supply, new products and new forms of firm organization (Baldwin, 1995, pp. 1-29). Schumpeter's approach was distinct in that it emphasized that non-price competition is at least as important as price competition (Schumpeter, 1947, p. 84). Similarly, creativeness and innovativeness are also fundamental starting-points of Porter's (1985) concept of a firm's competitive advantage.

On the other hand, advocates of the static understanding of competition explain it as a competitive system defined by several structural characteristics of the market (such as the number of suppliers, the level of homogeneity of goods, the mobility of factors of production etc.) (Prašnikar, Koman, 1996, p. 51). Cournot (1938, p. 101) defined competition as a state in which the process of competition reaches its boundaries, i.e. when the production of a single supplier becomes unimportant compared to total production in the industry. This understanding of competition is (as mentioned) closer to neoclassical economic theory, which defines competition as a prevailing market structure. Neoclassical economists therefore divide competition into perfect and imperfect which means they define it using static criteria such as the number of firms, coefficients of concentration etc. (Makovec-Brenčič, 2000, pp. 16-17). Although neoclassical economic theory's development was based on the classical one, its understanding of competition differs considerably.

To understand the whole topic more clearly, we also define the terms competitiveness, competitive advantage and sources of competitive advantage. Competitiveness, as a derivative from competition, can be defined as an attribute of something that is competitive. Noe et al. (1994, p. 2) saw a firm's competitiveness as its ability to defend and increase its market share compared to other firms in the industry. On the other hand, the competitiveness of a country is usually defined as its ability to sell in domestic and foreign markets (as a consequence of changes in costs, prices and other factors) (Balassa, 1985, p. 27) or its ability to create greater wealth than other countries (Makovec-Brenčič, 1996, p. 70). A similar definition is offered by the World Economic Forum (1997, p. 12), which defines a country's competitiveness as its ability to assure permanently high growth rates of GDP per capita.

Some authors (see, e.g., Makovec-Brenčič, 2000, p. 33) believe that competitiveness can only be reasonably discussed at the country level. Based on our previous conclusion that competitiveness is an attribute of something that is competitive, we naturally cannot agree with them. Clearly, the term competitiveness cannot be reserved for the country level but

rather, or even better, especially for the firm level. In spite of the unresolved dilemma about the level[1] at which the discussion on competitiveness makes most sense, we believe at this point we should emphasize that when discussing competitiveness we should not forget it is a relative concept. In other words, we cannot discuss competitiveness without comparing a firm or a country with another firm or country. This relativity is especially important because, as we explain in the following paragraphs, the term competitive advantage should also be seen as something relative.

In the literature one can find many different definitions of competitive advantage. Hyvönen (1995, p. 334), for instance, defines competitive advantage as a unique position a firm develops in comparison with its competitors. Bamberger (1989, p. 80) further explains that outward evidence of a competitive advantage is a position of superiority in an industry or market, whereby that superiority depends on how customers perceive it. Pilling (1991, p. 55) also sees the essence of competitive advantage in the creation of a positional[2] advantage, which usually leads to a firm's superior performance. Although accepting the understanding that having a competitive advantage means having a superior position in comparison with competitors, Duncan, Ginter and Swayne (1998, p. 7) warn that such an understanding can sometimes be dangerous in the sense that a firm that once possessed an advantage becomes passive. Therefore, firms must understand that its superior position can quickly be lost if a firm does not continuously maintain it and/or if it fails to respond to changes (Christensen, 2001, p. 105).

Although almost every author offers a somewhat different definition of competitive advantage, we believe that the vast majority of the literature emphasizes two common attributes of the term, i.e. 'positional' understanding of the competitive advantage and competitive advantage as a relative concept. Although the positional understanding seems to prevail in the literature, there are other authors (see, e.g., Day, Wensley, 1988, p. 2; Ma, 2000b, p. 54) who understand competitive advantage as an advantage in a firm's resources and capabilities (i.e. in what we call the sources of competitive advantage (Čater, 2001, pp. 64-74)). On the other hand, the relativity of competitive advantage is already indicated by the term 'competitive advantage' itself. The term clearly indicates that we are dealing with a relative comparison of a firm (which has a certain advantage) with its competitors (Ma, 2000a, pp. 18-19). Since 'what to compare' and 'who to compare with' are also two basic questions of benchmarking (Clayton, Luchs, 1994, p. 54; Antončič, 1996, p. 69), we can say that the process of analyzing a competitive advantage is in fact similar to the benchmarking process.

Naturally, in order to create a competitive advantage certain foundations for it must exist (or must be created) in a firm. In this paper, such foundations are labeled 'sources of competitive advantage'. As there is no well-articulated definition of these sources in the literature, we try to depict them by comparing them with the foundations of a house. Just as we can say that a house is safe only if it has quality foundations, we can also say that a competitive advantage is sustainable only if its sources are appropriate (i.e. stable, unique, hard to imitate etc.). In other words, a competitive advantage does not exist by itself unless a firm creates it. There are only certain sources (conditions) for the creation of a competitive advantage and it is up to each firm how it will exploit these conditions and what kind of competitive advantage it will create (Anthony, Perrewe, Kacmar, 1996, p. 468). Naturally, the sources of competitive advantage

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[1] A more detailed discussion of competitiveness and competitive advantage on the country, industry and firm levels appears in the next section.

[2] A more detailed examination of a 'positional' competitive advantage is given in Ma (2000b, p. 53).

can rapidly change. Therefore, a source that used to be relevant in the past may be irrelevant today (Lee, Ulgado, 1996, p. 10; Slater, 1996, p. 83). That is why firms are constantly forced to seek and create new sources of competitive advantage (Makovec-Brenčič, 1997, p. 42).

From the above discussion the connection between the terms defined in this section should be clear. As shown in Figure 1, certain sources of competitive advantage must first exist. If a firm knows how to exploit them a competitive advantage (in at least one of many of its forms) is created. This advantage then enables the firm to achieve the state of competitiveness and consequently outperform its competitors.
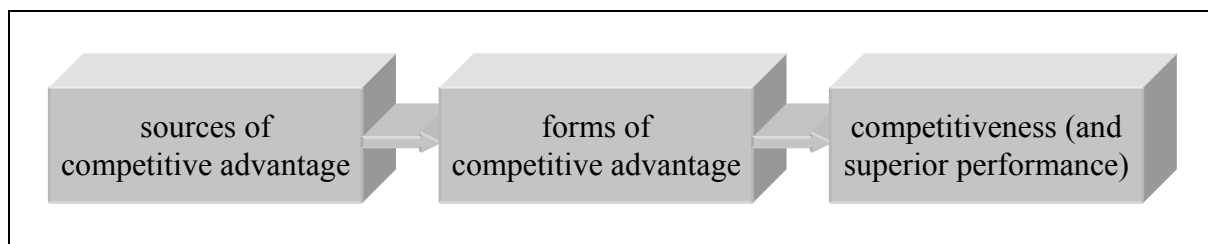
Figure 1. Relationship between the discussed concepts

3. DIFFERENT LEVELS OF DISCUSSION ON COMPETITIVE ADVANTAGE

Although competitive advantage is usually discussed at the firm level, for the sake of completeness we should mention that this level is not the only one possible. Scientific literature (see, e.g., Makovec-Brenčič, 2000, pp. 38-83) usually mentions three main levels of discussion, i.e. the country, industry and firm levels.

Chronologically, the concept of competitive advantage was first discussed at the country level. Many authors tried to answer the question of why countries trade. Clearly included among the most popular concepts here are Adam Smith's theory of absolute advantage, David Ricardo's theory of comparative advantage and Eli Heckscher's and Bertil Ohlin's theory of comparative advantage based on factor proportion (Appleyard, Field, 1995, p. 170; Makovec-Brenčič, 1998, p. 35; Kumar, 1999, pp. 78-92). These and some other theories that deal with competitive advantage at the country level cannot of course be discussed in detail here for that would exceed the limits of the paper. We need to mention, however, that the discussion of competitive advantage at the country level is still very much 'alive'. This can be seen from the many attempts to measure countries' competitiveness in the scientific literature (see, e.g., Dimovski, Zager, 1995, pp. 570-587; Jeggers, 1995, pp. 115-141; Esser et al., 1996, pp. 27-90). Based on complex methodology and by using many different indicators the competitiveness of countries is also measured annually by well-known global organizations such as the World Economic Forum (in its publication Global Competitiveness Report), the International Institute for Management Development (in the publication World Competitiveness Yearbook) etc.

In spite of the debates on country-level competitive advantage, we join those critics who believe that such a discussion is at least dubious if not inappropriate and that the only logical level to discuss competitive advantage is the firm level (Kogut, 1985, p. 26; Krugman, 1987, pp. 41-42; Fröhlich, 1989, pp. 21-41; DuBuis, Oliff, 1993, pp. 31-41; Krugman, 1996, p. 18). Krugman (1994, p. 44), for example, claims that competitiveness is not a relevant term when we discuss different national economies. A country, however, still has an important role in creating good or bad conditions for firms in their attempt to compete in the global market (Krugman, 1987, p. 42). The same logic forms the essence of Porter's belief that firms and not

countries compete in the global market (Porter, 1990, p. 619). Although he also talks about the competitive advantage of nations[3], a closer look reveals that the competitiveness of a nation is in fact built on the competitiveness of the firms within the national economy. The cornerstones forming the diamond of the nation's advantage can therefore be regarded as characteristics of the macroeconomic environment that have an important influence on the creation of firms' competitive advantages in the national economy.

Similarly as with the country level, we can also doubt the reasonableness of a discussion of competitive advantage at the industry level. In other words, can we really say that a certain industry has a competitive advantage over another industry? In the literature several authors can be found who not only believe in competitiveness at the industry level but also try to measure it. There are many empirical studies that concentrate on the competitiveness of specific industries, above all the automobile industry (Fahy, 1997), the pharmaceutical industry (Henderson, Cockburn, 1994), the processing industry (Hughes, Hare, 1994) etc.

With regard to competitive advantage at the industry level we also feel obliged to warn about the sometimes-misunderstood interpretations of Porter's ideas regarding the structural parameters of an industry. The concept's basic idea is clearly not the measurement of the competitive advantage of one industry over another. Porter's message simply concentrates on the idea that firms in any industry are directly influenced by five competitive forces, i.e. the bargaining power of buyers, the bargaining power of suppliers, the threat of substitution, the threat of new entrants and the existing rivalry in the industry (Porter, 1979, p. 141). The combination of the five forces defines the circumstances in which firms operate and consequently also their profit potential. The central level on which competitive advantage is built is therefore, once again, the firm level. Whether or not it is reasonable to discuss competitive advantage at the industry level this is certainly less relevant and less reasonable than a discussion of competitive advantage at the firm level. The reason is, of course, that firms compete in the market and industries do not. Even if we imagine that industries compete for a limited amount of consumption, the fact remains that behind the 'competition between industries' there is competition between firms from different industries.

Based on the above discussion, the firm level is the only undisputed[4] and possibly also the only reasonable level on which competitive advantage can be discussed. By that we do not of course wish to ignore the important role of the country and industry levels, since both can contribute significantly to creating the appropriate business environment. Since a detailed discussion of firm-level competitive advantage is the focus of the next section, at this point we only wish to emphasize that some authors (Schill, McArthur, 1992, p. 6; Kolar, Tomažič, 1993, p. 97; Završnik, 1994, pp. 145-146; Makovec-Brenčič, 2000, p. 83) discuss several sub-levels[5] of firm-level competitive advantage. These sub-levels are:

(1) competitiveness of a group of co-operating firms;

(2) competitiveness of the firm as a whole;

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[3] Here, we refer to the book 'The Competitive Advantage of Nations' published in 1990.

[4] Here, indisputableness refers to the fact that in the scientific literature we were unable to find a single author who would not allow the discussion of competitive advantage at the firm level.

[5] In this respect, Schill and McArthur (1992, p. 6) believe that the order of creating a competitive advantage is as follows: product/service → (strategic) business unit → firm (corporation) → group of co-operating firms (corporations).

(3) competitiveness of a (strategic) business unit within the firm;

(4) competitiveness of a broad group of products/services; and

(5) competitiveness of a product/service, which can be objectively compared with a competitor's product/service and for which the firm can calculate the financial result.

Of these five sub-levels discussions of the competitiveness of a product/service are probably the most common in everyday business life. This comes as no surprise if we acknowledge that a firm cannot have a competitive advantage unless it sells certain products/services. Besides, the determination of the advantage of a product/service (for instance, with regard to its design, price etc.) over a competitor's product/service also makes perfect sense. Although we have emphasized that the core level of discussion of a competitive advantage should be the firm level, an additional explanation is needed. Namely, when discussing a firm's competitive advantage we should not always look at the firm as a legal unit. This is especially true when we deal with large diversified corporations, i.e. those involved in several quite different businesses, each organized as a separate strategic business unit. In this case, it usually makes more sense to discuss competitive advantage at the strategic business unit level (Porter, 1987, p. 46) than the corporate level.

4. TWO FORMS OF COMPETITIVE ADVANTAGE: LOWER PRICE AND DIFFERENTIATION

4.1. The argumentation of lower price and differentiation as two forms of competitive advantage

In defining the forms of competitive advantage we follow two logical assumptions. First, competitive advantage is built based on certain sources of competitive advantage and, second, competitive advantage is reflected in a firm's superior performance. While the former emphasizes the difference between competitive advantage and its sources, the latter clearly indicates that competitive advantage is not a synonym for superior performance. Since customers are the ones that make a firm's operations and progress possible, the whole idea of competitive advantage should in fact be analyzed from their perspective. For example, a firm can produce superior products but, so long as the customers do not perceive them as superior, the firm is unlikely to gain a competitive advantage and outperform its competitors. The above understanding of competitive advantage brings us to the conclusion that firms have to compete on superior customer value delivery. They can offer superior value to customers by offering similar products and services as the competitors at a reduced price or by differentiating themselves from the competitors, i.e. by offering something the competitors cannot offer at all or cannot offer in a specific desired way (for example, in a very short time). Two of the main forms of competitive advantage are therefore lower price and differentiation. The above understanding of the two basic forms of competitive advantage can be labeled 'positional' as its essence is the creation of a superior position vis-à-vis the competitors in the eyes of the customers. In other words, in comparison with the competitors a firm must try to either offer customers greater value for the given amount of money or offer them the same value for a smaller amount of money (Woodruff, 1997, p. 139).

If we agree with the positional definition of competitive advantage from the customers' point of view, it becomes clear why resources, capabilities and knowledge cannot be understood as a competitive advantage of a firm, as proposed, for example, by Day and Wensley (1988, p. 2) and Ma (2000b, p. 54). The reason is that a firm's resources cannot generally be seen by its customers. Even if they can be seen, the customers would not remain loyal to a firm solely because of its superior resources unless the firm offers the customers greater value, i.e. something the customers perceive as an additional benefit or value for themselves. A firm's resources, capabilities and knowledge should therefore not be understood as forms but rather as bases or sources of a firm's competitive advantage.

A similar logic can also be applied to explain why one of the two forms of competitive advantage is lower price, as suggested by Kotha and Vadlamani (1995, p. 76) and Swann (1994, p. 24), and not lower costs, as interpreted, for instance, by Porter (1985, p. 11; 1991, p. 101), Bamberger (1989, p. 80), and Pitt, Ewing and Berthon (2000, p. 12). Although it is important to acknowledge this dilemma, we still should not spend too much time and space discussing it. In fact, the dilemma is more a question of comprehension rather than the contents as it is clear that a firm cannot offer a lower price in the long term unless the lower price is supported by lower costs. In spite of all of this, we define lower price as one of the two basic forms of competitive advantage, and not lower costs. The main reason for this is, as explained by Mintzberg (Kotha, Vadlamani, 1995, p. 76), unless accompanied by lower price cost leadership does not contribute to superior customer value and hence does not provide an advantage in itself. It is therefore better to treat lower price as a form of competitive advantage while simultaneously being aware that, at least in the long run, lower price must be based on lower costs. But if lower price is a form of competitive advantage, what then are lower costs? Can lower costs then be regarded as some kind of source of competitive advantage? We do not accept this. Although lower costs can allow a firm to reduce the price of its product/service, they are still not the true source of competitive advantage. Instead, they should be understood as a result of the true sources of competitive advantage such as unique resources, capabilities and knowledge (based on which a firm is able to achieve lower costs per unit of a product/service).

In this paper we therefore treat lower price and differentiation as two main forms of competitive advantage. Especially with regard to differentiation the literature discusses several of its forms. Of these, the greatest stress is usually placed on (Kotha, Vadlamani, 1995, p. 76; Sashi, Stern, 1995, p. 126; Helms, Ettkin, 2000, p. 1) (see Figure 2):

(1) Superior product/service. Probably the most important aspect of a firm's differentiation is the differentiation of a product/service. In short, it involves offering the customer a better product/service than the competitors.

(2) The totality of supply. A firm differentiates itself by offering a broad product line and supplying a customer with support and complementary products/services.

(3) Speed. Today, the customer usually demands that a product be delivered as quickly as possible. Fast response and delivery are therefore important aspects of differentiation. Not only do they attract new customers but they also enable the firm to (at least for a short period) charge a higher price (Kumar, Motwani, 1995, p. 51) and achieve better performance (Wagner, Digman, 1997, p. 345).

(4) Flexibility. Another important aspect of differentiation is the flexible satisfaction of specific customer needs, especially if the competitors do not have the will and/or power to satisfy such needs.

(5) Positive image of a firm. A firm can differentiate itself from its competitors simply by 'selling' a positive image of itself (for example, if a customer acknowledges a firm's positive attitude to the environment etc.).

With regard to the superiority of a product/service the literature usually classifies this form of differentiation even further. This classification is based on different dimensions of the superiority (quality) of a product and/or service. In most cases, the following eight[6] dimensions of quality are outlined: (1) functionality; (2) extra features; (3) reliability; (4) compliance with standards; (5) durability; (6) practicability of repairs; (7) aesthetics; and (8) perceived quality[7] (Garvin, 1987, pp. 104-108). Although some authors (see, e.g., Reed, Lemak, Mero, 2000, pp. 5, 12) believe that improved quality can lead to a competitive advantage, it seems that the majority of researchers doubts this. Their basic argument is that all firms emphasize quality today. The emphasis on quality is therefore a 'necessity' rather than a 'supplement'. In addition, most elements of quality can easily be imitated and hence cannot represent a long-term competitive advantage (Powell, 1995, p. 15). For this reason, Mlakar (1998, p. 71) prefers to use the term excellence (rather than quality) as a crucial factor of competitiveness and superior performance. Therefore, to be able to discuss quality as one of the forms of differentiation the quality involved must really be extraordinary. In other words, the advance in the value received by the customer must be considerable Swann (1994, p. 24).
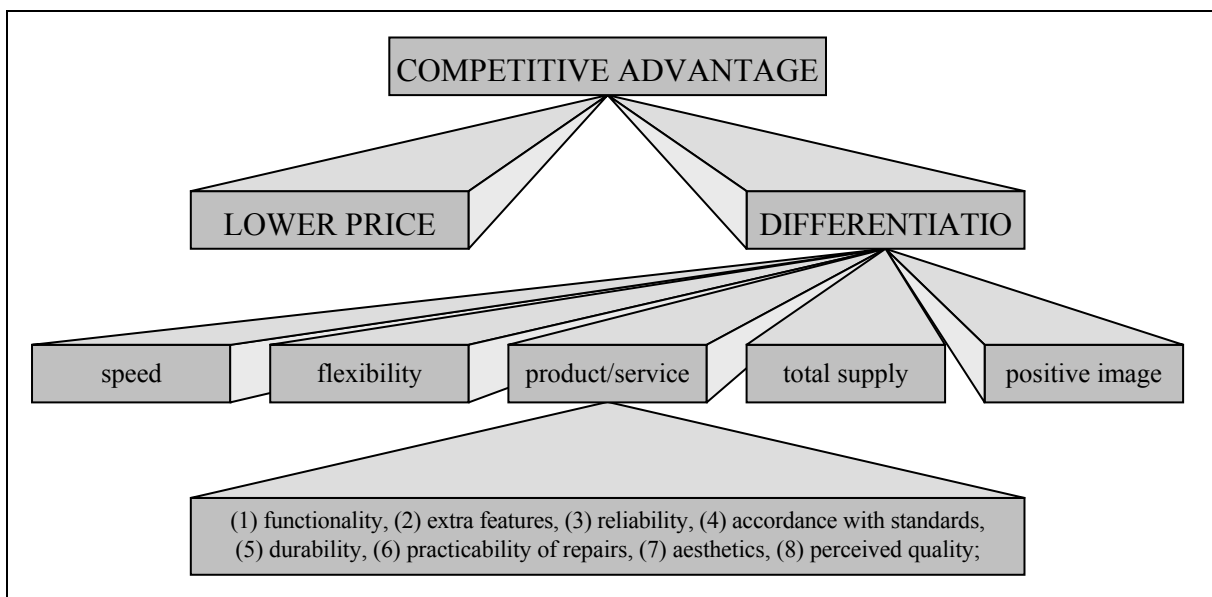
Figure 2. Forms of competitive advantage of a firm

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[6] When dealing with firms in the service sector, another important dimension of quality is often mentioned, namely the continuity or consistency of services (Coyne, 1993, pp. 4-6).
[7] Due to the heightened ecological awareness of customers in recent years, the perceived quality of a product/service increasingly depends on an ecology-related differentiation, i.e. on the extent to which a firm's product/service is environmentally-friendly compared to the competitors' products/services (Reinhardt, 1998, p. 68).

Before moving on to discussing the relationship between competitive advantage and business strategy one final dilemma regarding the two forms of competitive advantage, lower price and differentiation, needs to be briefly addressed. Namely, can lower price also be treated as just another form of differentiation? The answer here can definitely be affirmative. Therefore, we can agree with Mintzberg who labels price advantage 'differentiation by price'. His argument is that price, like with design, functionality etc., is just another attribute of a product/service (Kotha, Vadlamani, 1995, p. 76). The question is definitely interesting but as long as we are aware of the essence of the dilemma it does not really matter whether we call it a 'competitive advantage in lower price' or a 'competitive advantage in differentiation by price'. Therefore, the decision to use the terminology presented in this paper, i.e. to discuss lower price and differentiation as two basic forms of competitive advantage, was based on the fact that such terminology is already more widely used in the literature (and therefore creates less terminological confusion). In addition, the term 'lower price' is more specific and self-explanatory than the term 'differentiation by price' as differentiation by price can include both higher and lower price.

4.2. The relationship between competitive advantage and business strategy

Of the many classifications of business strategies, Porter's generic[8] business strategies are undoubtedly the most frequently discussed in the literature. The core idea of the concept is that a firm can choose between three potential strategic approaches to outperform its competitors in an industry, namely: (1) cost leadership; (2) differentiation; and (3) focus (based either on low costs or on differentiation) (Porter, 1980, p. 35). Porter's classification is based on a combination of two dimensions, the type of competitive advantage (lower costs or differentiation) and the competitive scope (broad or narrow market).

For the purposes of this paper an important question is whether a firm can implement more than one generic business strategy simultaneously. Porter (1980, p. 35) strongly suggests that (except in some rare specific conditions) a firm should not choose more than one generic strategy because implementing any of them requires total commitment and supporting organizational arrangements that are diluted if there is more than one primary target. If a firm fails to develop its strategy in one of the three directions, it is said to be 'stuck in the middle' and is almost guaranteed low profitability. Based on an extensive review of the literature, we may conclude that the dilemma is still relatively unsolved and is often the centre of disagreement between authors. Besides Porter, the idea of pursuing only one generic business strategy at a time is also supported by Campbell-Hunt (2000, p. 131). On the other hand, many authors (e.g., Wright, 1987, p. 96; Hill, 1988, p. 411; Murray, 1988, pp. 395-397; Faulkner, Bowman, 1992, pp. 496-497; De Castro, Chrisman, 1995, p. 172; Wright et al., 1995, pp. 147-148; Yamin, Gunasekaran, Mavondo, 1999, p. 516; Pitt, Ewing, Berthon, 2000, pp. 13-14) believe that a firm can (or even must) implement more than one generic business strategy simultaneously.

The above brief presentation of the concept of generic business strategies was required to better understand the relationship between competitive advantage and generic business strategies. This relationship is often imprecisely presented in the literature. Above all, some authors do not clearly distinguish between differentiation as a business strategy and

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[8] Porter described the three strategies as 'generic', which refers to their validity in all business environments. The studies carried out by Murray (1988, p. 390) and Miller and Dess (1993, p. 558), however, do not support that. For this reason, the authors believe that Porter's strategies only apply in specific environmental conditions, which means they can only be contingent and not generic.

differentiation as a form of competitive advantage. Similarly, they tend to mix cost leadership as a business strategy and lower price as a form of competitive advantage. Although the two concepts are closely related, it is absolutely necessary we understand why they are different. Namely, competitive advantage is, as already explained, a positional advantage in an industry or a market. On the other hand, the business strategy (be it cost leadership or differentiation) is only a business orientation which, if properly implemented, promises that strategic goals will be met (Pučko, 1999, p. 173). Therefore, if properly implemented the cost leadership (differentiation) strategy enables (but does not automatically assure) a firm to develop a competitive advantage in the form of a lower price (differentiation).

4.3. The dilemma of simultaneous price and differentiation advantages

Before dealing with the dilemma of simultaneous cost and differentiation advantages, we first need to ask ourselves about the costs of differentiation. Usually differentiation demands a certain increase in costs which, at least in the long run, also requires an increase in price. The reason for the increase in costs of a differentiated product/service can be ascribed to the need to perform the required set of activities differently or even to replace certain activities in the set. For instance, the prolongation of a product's life requires the use of better and hence more expensive materials. Naturally, not all types of differentiation are equally expensive. For example, differentiation based on the improved co-ordination of interrelated activities can be very cheap or even free, whereas adding extra features to a product usually requires much more money (Porter, 1985, pp. 127-128).

By saying that differentiation often requires an increase in costs and prices, we of course do not wish to imply that the inverse situation, i.e. a decrease in costs as a result of differentiation, is impossible. Sometimes making the set of activities unique also simultaneously cuts the costs. Negative costs of differentiation may, for example, be the result of the vertical and/or horizontal integration of a firm. Where achieving differentiation and reducing costs can take place simultaneously this suggests one of the following (Porter, 1985, p. 129):

   (1) a firm has not been fully exploiting all its opportunities to reduce costs;

   (2) being unique in an activity was formerly judged undesirable; or

   (3) a significant innovation has occurred which competitors have not adopted such as an automated process that both lowers costs and improves quality.

When we discuss the costs of differentiation we must not forget about the costs of quality. Ever more authors (see, e.g., Belohlav, 1993, pp. 60-61; Terziovski, Samson, 1993, pp. 15-16) agree that the traditional thinking that improving quality is expensive is wrong because it reflects an incomplete understanding of quality-related costs. More specifically, such thinking fails to take into consideration the costs of bad quality (for instance, costs due to lost customers, costs due to a bad reputation, the costs of mending and warranties etc.). These costs are said to be even higher than the costs of improving quality but have long been underestimated (probably because it is difficult to quantify them).

While the literature does not provide any clear answer as to whether more than one generic business strategy should be implemented at a time, the situation is much clearer with regard to simultaneous competitive advantage in both lower price and differentiation. In other words,

the idea of 'pure' generic business strategies does not directly interfere with the idea of a simultaneous cost and differentiation advantage. Indeed, a firm should normally concentrate on only one of the generic business strategies, yet it could still find itself in a position (for example, due to rare and valuable resources) of having a simultaneous cost and differentiation advantage. We can therefore agree with those authors (see, e.g., Flynn, Schroeder, Sakakibara, 1995, p. 666; Flynn, Flynn, 1996, pp. 370-374) who claim that a firm can offer a superior (differentiated) product at a lower price. In addition, Karnani (1984, p. 377) believes both forms of competitive advantage are continuums on which more of one can be a substitute for less of another (trade-off). This means a firm's competitive advantage results from an appropriate combination of a firm's price (cost) and differentiation position.

4.4. The relationship between competitive advantage and firm performance

Although competitive advantage and performance are undoubtedly two closely related concepts, we wish to specifically emphasize that we do not agree with those authors (see, e.g., Buckley, Pass, Prescott, 1988, p. 176; Francis, Tharakan, 1989, p. 9; Kolar, Tomažič, 1993, p. 99) who treat them as synonyms (Ma, 1999, p. 259). Instead, we believe that competitive advantage is a necessary condition for superior firm performance (Spanos, Lioukas, 2001, p. 919). A review of the relevant literature reveals that most authors (see, e.g., Piercy, Kaleka, Katsikeas, 1998, p. 384; Spanos, Lioukas, 2001, p. 919) agree on the positive influence of a competitive advantage, particularly in the form of product/service superiority (Peach, 1992; Kroll, Wright, Heiens, 1999, p. 381) and speed (Sullivan, Kang, 1999, p. 1) on a firm's performance. On the other hand, only a few believe that competitive advantage does not always result in superior performance (Coyne, 1986, p. 60; Ma, 2000a, pp. 24-26) because the rents (as a consequence of the competitive advantage) can be appropriated by different individuals (Coff, 1999, p. 120). Where they are, for example, appropriated by employees this will result in higher salaries and not in a firm's superior financial performance (for instance, return on equity).

With regard to the relative influence of price and differentiation advantages on a firm's performance, there seem to be several authors who believe that a differentiation advantage leads to greater firm performance than a price (cost) advantage. Caves and Ghemawat (1992, p. 11), for example, claim that a differentiation advantage (especially in the form of a superior product and broad product assortment) enables a firm to realize greater profits than a cost (price) advantage although, on the other side, cost (price) advantage usually leads to a greater market share. Similar results are also reported by Doyle and Wong (1998, p. 524), who studied the characteristics of successful firms and found that one of their common characteristics is their permanent desire to differentiate themselves from their competitors. This is probably the main reason why in the literature from the 1970s onwards the discussion on competitive advantage primarily focuses on different forms of differentiation (Kumar, Motwani, 1995, p. 51), in recent years above all on a firm's capability to respond quickly to environmental changes. Finally, with regard to the simultaneous price (cost) and differentiation advantage the empirical studies show that such a simultaneous advantage seems to result in greater performance than a competitive advantage in just one of the two forms (White, 1986, p. 227; Faulkner, Bowman, 1992, pp. 496-497).

5. CONCLUSION

In the paper we have defined the competitive advantage of a firm as its superior position in an industry or market, where 'superior' refers to the relative comparison with competitors whereas 'position' relates to positional understanding of competitive advantage. The final question remaining to be answered is which basic conditions must be fulfilled in a firm if it wants to build up a competitive position that will result in its long-term superior performance.

Certainly the creation of a competitive advantage requires the existence of certain sources of competitive advantage. As these sources have already been discussed elsewhere (see, e.g., Čater, 2001, pp. 64-74) we do not discuss them in detail here. Let us only mention that basically there are two broad groups of sources of competitive advantage, internal and external. The internal sources are usually divided into tangible and intangible, and employee-related and firm-related. They typically include firm-specific types of resources, capabilities and knowledge. On the other hand, the external sources represent the favorable characteristics of a firm's environment and can be divided into industry-related ones and national-economy-related ones.

In order to be able to say that a firm has a competitive advantage this advantage needs to be correctly perceived by a firm's customers (Ulrich, Lake, 1990, pp. 33-34). A competitive advantage can therefore only be achieved if a firm's customers truly believe that the firm can offer them greater value (benefit per unit of costs) than the competitors. In fact, a firm's product/service could be much better than the products/services offered by its competitors but so long as the customers do not perceive this the firm cannot have a competitive advantage.

We also have to emphasize that a competitive advantage, once achieved, is not something permanent and unchangeable. On the contrary, as soon as a firm forgets that a competitive advantage requires continuous maintenance and investment the competitive advantage could quickly be lost. A firm must therefore continuously seek and develop new sources of competitive advantage (Makovec-Brenčič, 1997, p. 42) and try to keep its offer as unique as possible in comparison with its competitors (Ulrich, Lake, 1990, p. 35).

Another much desired attribute of competitive advantage is its sustainability and durability. Some authors (see, e.g., Powell, 1993, p. 141) even believe that the sustainability (durability) of competitive advantage is a necessary prerequisite for any discussion of true competitive advantage. Very strictly this can be understood whereby a competitive advantage that is not sustainable and/or durable over a longer period of time is not a true competitive advantage. On the other hand, there are other authors who specifically emphasize the use of formulations like sustainable (maintainable, durable etc.) competitive advantage (see, e.g., Coyne, 1986, p. 57; Ghemawat, 1986, pp. 53-54; Williams, 1992, p. 32; Black, Boal, 1994, pp. 131-133). In this way, these authors indicate that they differentiate between competitive advantages that are sustainable in the long term and competitive advantages that are more likely to be neutralized by the competitors relatively soon (Beard, Easingwood, 1992, p. 7).

In this paper we understand competitive advantage as something that can also potentially be a short-term phenomenon. This may be the case if an advantageous cost (price) and/or differentiation position simply cannot be protected against imitation. Of course, such a short-term competitive advantage cannot have a significant positive effect on a firm's performance (Porter, 1996, p. 62), which means that a firm probably should not spend too much effort and money on its development. Therefore, when discussing a firm's competitive advantage we

should not too rigorously look at competitive advantage as something explicitly long-term or even completely durable. This would also not make much sense given that in the contemporary turbulent business environment firms must always upgrade their competitive advantages. In conclusion, the sustainability (maintainability, durability etc.) of a competitive advantage is a desired, albeit not a strictly necessary, condition in competitive-advantage-related discussions.

We fish to conclude our discussion by once again reminding the reader that the process of ensuring a firm's competitiveness always has been, is, and always will be the nucleus of the work of top managers. Even the shifts from the 'hard capitalist' to a more 'social-responsibility-based' management practice cannot change this. For this reason the discussion on a firm's competitive advantage must go on even in the modern business environments. Our goal in this paper was therefore to make a small contribution towards a more unified theory of competitive advantage of a firm. Above all, we wanted to contribute to a clearer understanding (as well as to stimulate further discussion) of the competitive advantage and related concepts. Although our paper is theoretical in nature its strengths can be found in several logical and empirical argumentations as well as in detailed literature review on this wide scientific field.

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ACCOUNTING ASPECTS OF EMPLOYEE STOCK OWNERSHIP PLAN IN CROATIAN COMPANIES

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1. INTRODUCTION

Stock allocation to the employees is every day even more frequent appearance worldwide and in Croatia, too. Operating instruments for above mentioned are ESOP programs, which present a form of employee ownership and are likely to be established through privatization legal framework in Croatia. Aims of employee stock allocation are multiple, and some of the most important are: increment of employee benefits, but at the same time liquid funds are hold within the company which represent financing and expansion source. On the other hand, employees, as stockholders, are interested in profit growth, because in that situation their ownership interests are satisfied, and undoubtedly efficiency of the company is increased. All above mentioned had and still has influence on development of accounting models for described transactions. As a result of this effort, parts of accounting profession framework are: International Financial Reporting Standard 2 – Share-based Payment, and International Accounting Standard 19 – Employee Benefits.

The main hypothesis of this paper is that ESOP programs, as a way of employee motivation, are introduced in increasing number of companies in Croatia, which requires adequate presentation of these transactions in financial statements, but is still not elaborate enough in accounting literature.

Presentation of these transactions in financial reports of Croatian companies should be in accordance with financial reporting framework which is defined by Accounting Act which regulate appliance with International Financial Reporting Standards for large entrepreneurs, as well as for the companies listed on the stock exchange. At the same time, other entrepreneurs can apply these standards or standards set by the Financial Reporting Board. In other words, financial reporting framework in Croatia is in accordance with the financial reporting framework in the European Union.

2. ESOP DEFINITION, DEVELOPMENT AND FEATURES

2.1. ESOP definition

An Employee Stock Ownership Plan (here and after ESOP) is a form of a defined contribution benefit plan. The company sponsoring the plan makes contributions of cash or shares of its stock directly to an ESOP trust set up for the benefit of the company's employees. If the contribution is in the form of cash, the trust uses the cash to purchase shares of the sponsoring company's stock, often from a large stockholder who wishes to cash-out. Subsequently, the trust distributes the shares to the accounts of a specified employee group. These shares are referred to as "allocated shares." The manner and timing of the allocation depend on how the trust is financed. Employee Stock Ownership Plans (ESOPs) are becoming increasingly diverse and complicated. ESOP work can be shown in few steps[1]:

1. Company establishes an ESOP Trust

2. ESOP Trust purchases company stock from shareholders

3. Bank provides financing to Company: Company re-loans proceeds to ESOP

4. Company pays contribution or dividends to ESOP that ESOP uses to repay debt

5. Company or ESOP repurchases shares from employees after termination.

ESOPs are designed to facilitate employee shareholdings and are often used as vehicles for distributing shares to employees under remuneration schemes. The detailed structures of individual ESOPs are many and varied, as are the reasons for establishing them. However, the main features are often as follows[2]:

1. The ESOP trust provides a warehouse for the sponsoring company's shares, for example by acquiring and holding shares that are to be sold or transferred to employees in the future. The trustees may purchase the shares with finance provided by the sponsoring company (by way of cash contributions or loans), or by a third-party bank loan, or by a combination of the two. Loans from the company are usually interest-free. In other cases, the ESOP trust may subscribe directly for shares issued by the sponsoring company or acquire shares held as treasury shares.

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[1] Introduction to ESOPs Presentation, www.sesadvisors.com, October 2006
2 UITF abstract 38 Accounting for ESOP trusts (Issued 15 December 2003), page 1-2, www.frc.org.uk/asb/uitf/pub0329.html, December 2006

2. Where the ESOP trust borrows from a third party, the sponsoring company will usually guarantee the loan, i.e. it will be responsible for any shortfall if the trust's assets are insufficient to meet its debt repayment obligations. The company will also generally make regular contributions to the trust to enable the trust to meet its interest payments, i.e. to make good any shortfall between the dividend income of the trust (if any) and the interest payable. As part of this arrangement the trustees usually waive their right to dividends on the shares held by the trust.

3. Shares held by the ESOP trust are distributed to employees through an employee share scheme. There are many different arrangements—these include: the purchase of shares by employees when exercising their share options under a share option scheme; the purchase of shares by the trustees of an approved profit-sharing scheme for allocation to employees under the rules of the scheme; or the transfer of shares to employees under some other incentive scheme.

4. Although the trustees of the ESOP trust must act at all times in accordance with the interests of the beneficiaries under the trust, most ESOP trusts (particularly those established as a means of remunerating employees) are specifically designed so as to serve the purposes of the sponsoring company, and to ensure that there will be minimal risk of any conflict arising between the duties of the trustees and the interest of the company. Where this is so, the sponsoring company has de facto control and there will be nothing to encumber implementation of its wishes in practice.

ESOPs may be leveraged or nonleveraged. Nonleveraged plans are the simplest. The company just transfers stock or cash to the ESOP trust. The amount of the contribution is normally determined on the basis of some predetermined criteria, such as a percentage of earnings. After the contribution is made, the ESOP distributes the shares to the individual employee accounts. This setup involves no special financing arrangements.
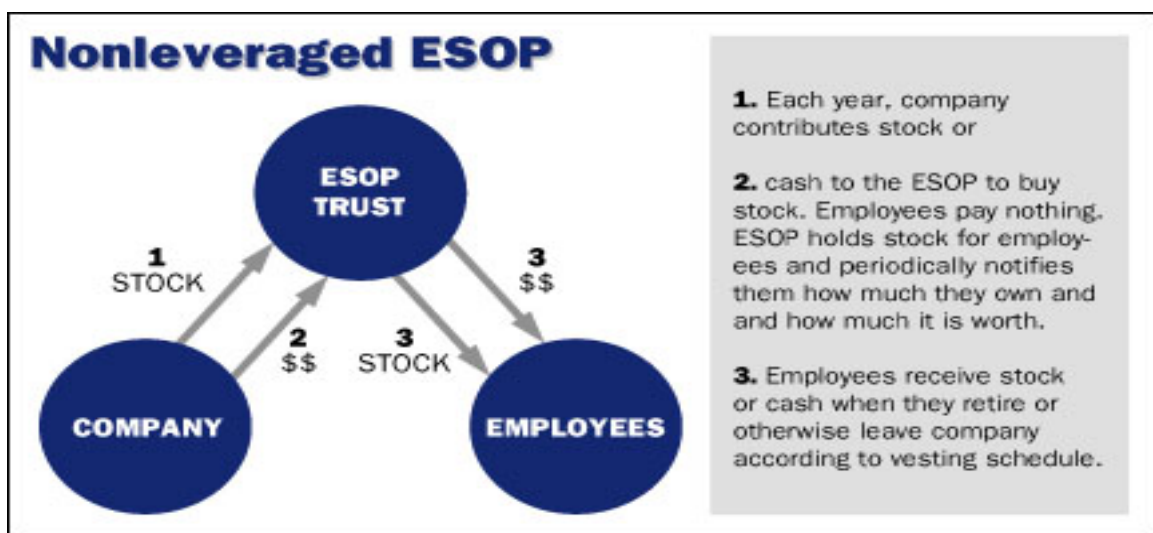
Figure 1. Nonleveraged ESOP[3]

If the company establishes a leveraged plan, the ESOP trust borrows the cash necessary to purchase the securities. The trust invariably pledges the stock as collateral and the company

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[3] www.esopassociation.org/about/about_leveraged.asp, December 2006.

offers some degree of guarantee regarding the loan. The pledged shares are known as "suspense" shares. Cash to repay the loan comes from two sources: dividends received by the trust on suspense shares and cash contributions by the company. Various arrangements are made regarding the cash contribution by the company. The contributions may be a level amount each year or they may be variable. In the latter case, the contribution is dependent on some specified performance measurement basis such as reported profits or operating cash flow.
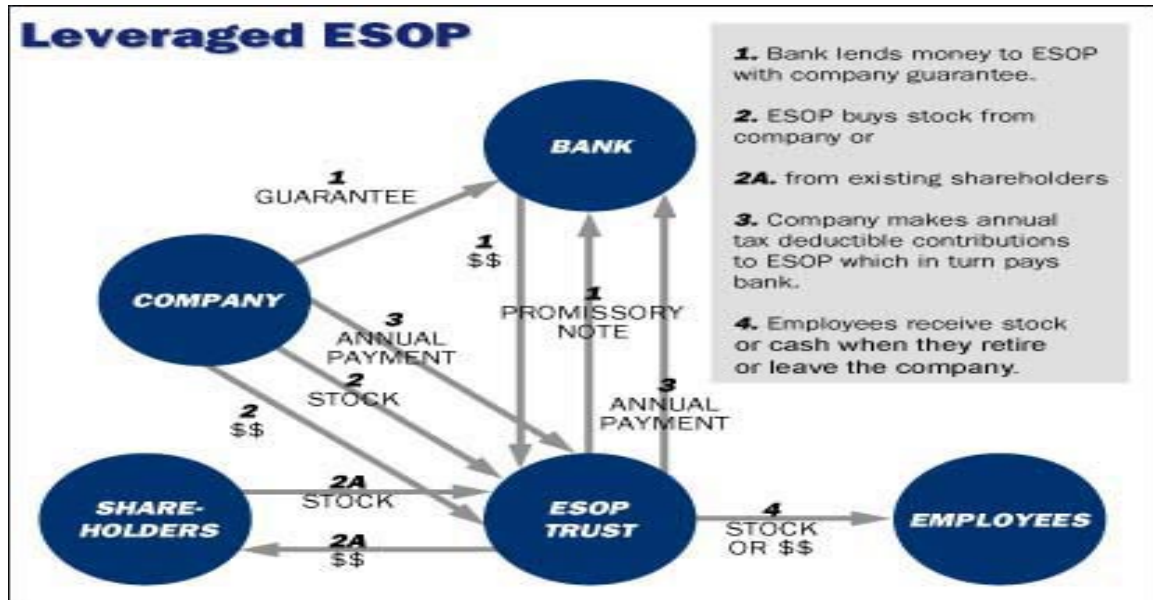
Figure 2. Leveraged ESOP[4]

The debt service payments cause the release of shares from collateral. Companies use two formulas to determine the number of shares to release. The first, called the principal and interest method, releases shares based on the ratio of the current year's debt payment to the total payments required over the life of the loan. The second method, referred to as the "principal only" method, uses the ratio of the current year's principal payment to the total principal as the basis for releasing shares. Because a larger portion of early debt payments goes toward interest, this method causes a slower rate of release. The trust must allocate the released shares to the employee accounts within a year of release. A nondiscriminatory formula specifies the allocation to individual accounts. Typically, the formula uses the wages and years of service of the individual employees to make the allocation.

When a company's stock has a ready market, the shares allocated to the employee's account are issued when the employee leaves the firm. If the company's shares do not have a ready market, the company must stand ready to repurchase the shares at their fair market value. In this case, the company has issued a "put option" to the employee; i.e., it has agreed to purchase the stock at a later time at a price yet to be determined. Determining this price can be difficult and expensive and is subject to strict regulation. Indeed, this provision is one of the main deterrents to the creation of ESOPs by smaller, closely held companies.

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[4] www.esopassociation.org/about/about_leveraged.asp, December 2006.

2.2. ESOP features

The increased interest in ESOPs is founded on several attractive features. Favorable tax treatment given ESOP lenders in certain circumstances has allowed ESOPs, and their sponsors through the ESOP, to borrow at reduced interest rates. Other provisions in the tax law allow a deduction for dividends paid on ESOP shares, which has been a particularly attractive feature to public companies. Also, there is deferring of tax that employees pay on stock allocated to their ESOP accounts until they receive distributions; at that point, they are taxed on the distributions.[5] Many employers believe that employee productivity may be enhanced by giving employees a share in the company ownership. Others in the corporate community believe that unfriendly takeovers may be thwarted when a large share of the company ownership is in the hands of employees. Several companies have used ESOPs to finance leveraged buyout (LBO) transactions. Some economists believe that ESOPs are a viable vehicle for transferring ownership of state-owned businesses in Eastern Europe to private hands.

3. ESOP ACCOUNTING DEVELOPMENT

3.1. ESOP accounting in world

The employee stock ownership plan (ESOP) concept was developed in the 1950s by lawyer and investment banker Louis Kelso. However, few companies took up Kelso's ideas because an ESOP's authority to borrow money to buy stock for participants was based on IRS rulings and had no clear statutory authorization.

In 1973, Kelso convinced Senator Russell Long, chairman of the tax-writing Senate Finance Committee, that tax benefits for ESOPs should be permitted and encouraged under employee benefit law. Soon, federal legislation promoting ESOPs appeared, most importantly the Employee Retirement Income Security Act of 1974 (ERISA)[6], which governs employee benefit plans and established a statutory framework for ESOPs.

Until recently, however, ESOP structures were relatively simple, typically involving only common stock of the employer and often leveraged with mortgage-type (level payment) debt with terms of 10 years or less. As the popularity of ESOPs increased in the late 1980s, the nature of ESOP arrangements became more complex. The increased complexity generated differing interpretations of the accounting literature, which was written in simpler times.

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[5] ESOP Tax Incentives and Contribution Limits , www.nceo.org/library/esop_tax_law.html , December 2006

[6] The Employee Retirement Income Security Act of 1974 (Pub.L. 93-406, 88 Stat. 829, September 2, 1974), commonly known as ERISA, is a United States federal statute which sets minimum standards for pension plans in private industry and provides for extensive rules on Federal income tax effects of dealings in connection with various employee benefit plans. ERISA was enacted to protect interstate commerce and the interests of participants in employee benefit plans and their beneficiaries, by requiring the disclosure and reporting to participants and beneficiaries of financial and other information with respect thereto, by establishing standards of conduct, responsibility, and obligation for fiduciaries of employee benefit plans, and by providing for appropriate remedies, sanctions, and ready access to the Federal courts.

In 1976, the AICPA issued *Statement of Position (SOP) 76-3, Accounting Practices for Certain Employee Stock Ownership Plans*; to address certain accounting issues relating to leveraged ESOPS. The primary recommendations of the SOP are[7]:

1. An obligation of an ESOP should be recognized as a liability by the sponsoring company when the sponsor guarantees the obligation or commits to make future contributions sufficient to service the ESOP debt. This liability is offset by a corresponding reduction in equity; both the liability and the offsetting debit to equity are reduced as the ESOP debt is paid.
2. Contributions or commitments to make contributions to the ESOP are recognized as compensation expense and interest expense by the sponsor.

3. All of the sponsor's shares held by the ESOP are treated as outstanding in the sponsor's calculation of EPS, regardless of whether those shares have been allocated to participants' accounts.

4. Dividends paid on shares held by the ESOP are charged directly to retained earnings by the sponsor.

The ESOP structure has evolved since 1976. Sponsors now are issuing equity, securities to ESOPs with complex conversion, redemption, and dividend features and are financing ESOPs with other than mortgage-type debt. Some of these features were not anticipated in the SOP. For example, in a leveraged ESOP arrangement: the sponsor max, issue convertible preferred stock to the ESOP and use dividends to service the ESOP's debt, reducing the sponsor's required contributions; the ESOP loan may provide for variable payments rather than level payments; the sponsor may not guarantee the ESOP debt; the terms of convertible preferred stock issued to an ESOP may be structured to avoid classification as a common stock equivalent for purposes of EPS calculations; the plan man, provide ESOP participants with a guaranteed value for the convertible preferred stock upon their retirement or termination.

These arrangements raise a number of accounting issues, many of which have been addressed by the EITF.[8] Three controversial issues addressed by the EITF in 1989 are: expense recognition for leveraged ESOPs, treatment of ESOP debt by the sponsor, and ESOP issues affecting the calculation of EPS.

The AICPA changed the accounting for ESOPs by issuing Statement of Position 93-6[9], *Employers' Accounting for Employee Stock Ownership Plans,* in 1993 which supersedes previous SOP 76-3[10].

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[7] Wise, Bret W; ESOP accounting: past, present and future. *(Employee stock ownership plans); The CPA Journal, June 1990*

[8] Emerging Issues Task Force – EITF is an organization formed in 1984 by the Financial Accounting Standards Board-FASB to provide assistance with timely financial reporting. The EITF holds public meetings in order to identify and resolve accounting issues occurring in the financial world.
[9] Statement of Position 93-6 supersedes AICPA SOP 76-3, Accounting Practices for Certain Employee Stock Ownership Plans. The newer SOP examines significant changes in the way employers report transactions with leveraged Employee Stock Option Plans (ESOPs) and provides essential guidance on accounting for non-leveraged ESOPs. This SOP also addresses issues concerning pension reversion ESOPs, ESOPs that hold convertible preferred stock, and terminations, as well as issues related to accounting for income taxes. Plus, it contains disclosure requirements for all employers with ESOPs, including those that account for ESOP shares under the grandfathering provisions

Previously, a company charged the amount of an ESOP contribution to expense without regard to whether it used the contribution to pay down an exempt loan to release shares. SOP 93-6, however, generally provides that when a company allocates shares to participants' ESOP accounts, a compensation expense results that is measured by the fair market value of the stock on the allocation date.

Under SOP 93-6, a company treats dividends on stock held in an ESOP the same as dividends on non-ESOP shares if the stock is allocated to participant accounts, reducing retained earnings. If the dividends are paid on unallocated shares, the company treats them as

- A reduction of the principal or interest on the exempt loan if it uses them to repay the exempt loan.

- Compensation expense if the company allocates the dividends to participants' accounts or if it pays them to participants out of a suspense account.

Previously, under SOP 76-3, *Accounting Practices for Certain Employee Stock Ownership Plans,* a company treated dividends paid on ESOP shares the same as those paid on non-ESOP shares.

There is another significant difference between SOP 93-6 and the prior rule. Under SOP 76-3, a company considered all ESOP shares outstanding when calculating earnings per share. Under SOP 93-6, the company treats only allocated shares, or shares committed to be allocated (released from the suspense account but not yet allocated within the plan year), as outstanding for this purpose.

There are now about 11,000 ESOPs and similar plans (stock bonus plans) covering over 10 million employees, which represents 10% of the American workforce. ESOPs are found in publicly traded and closely held companies of every size; however, most such companies have over 15 or so employees due to the costs of setting up and administering an ESOP[11]. About 1,000 ESOPs are in publicly traded companies that employ more than 50% of the nation's employee–owners. In 1994 U.S. ESOPs owned $222 billion in corporate assets[12].

3.2. International Financial Reporting Standard 2

The International Financial Reporting Standard (IFRS) 2 "*Share based payments*" contains detailed treatment of cancellations, reprising and other modifications of share-based payment arrangements, on reload facilities, on share-based payment transactions that have a choice of settlement options (i.e. either by issuing equity or by accepting a liability), and on the disclosures to be provided. It also contains some material on how to value shares and options in the absence of observable market prices, although it is unlikely to prescribe the use of any particular valuation model.

[10] David W. Powell, Thomas D. Terry, Ian Lanoff; Reinvigorating aging ESOPs - employee stock ownership plans; Journal of Accountancy, March, 2000
[11] www.nceo.org/library/history.html, , December 2006
[12] David W. Powell, Thomas D. Terry, Ian Lanoff; Reinvigorating aging ESOPs - employee stock ownership plans; Journal of Accountancy, March, 2000

Stated objective of IFRS 2 is "to specify the financial reporting by an entity when it undertakes a share-based payment transaction. In particular, it requires an entity to reflect in its profit and loss and financial position the effects of share-based transactions, including expenses associated with transactions in which share options are granted to employees"[13].

Transactions with employees are measured at fair value of the equity instrument awarded at the date when it is generally granted (i.e. grant date model). Transactions with employees are recognized using a service date model. Grant date is determined as "the date at which the entity and another party (including employee) agree to share-based payment arrangement, being when the entity and the counterparty have a shared understanding of the terms and conditions of the arrangement[14]". As discussed above, equity-settled transactions must be measured at fair value of the equity instruments issued to employees, except where is impossible to determine fair value. Fair value should be based on market prices if available. In the absence of market prices, a valuation technique should be used to estimate what the market price would have been on the grant date in an arm's-length transaction between informed and willing parties. In such cases, the entity is required to adopt a method of accounting based on the intrinsic value of the award (the price of the underlying share less the exercise price).

3.3. Allocation of expense

This question raises the issue of weather a share-based payment transaction should be recognized:

1. when the relevant equity instrument is first granted

2. when it vests

3. during the vesting period

4. during the life of the option

When the award of equity instruments vests immediately, IFRS 2 creates presumption that the award is in the respect of the service that has already been rendered, and should be therefore expensed in full at the grant date.

Where equity instruments are granted subject to vesting condition, IFRS 2 creates presumption that they are a payment for the service to be received in the future, during the vesting period, with the transaction being recognized during that period. The overall objective is that, at the end of the vesting period, the cumulative charge to the income statement should represent the number of equity instruments that have actually vested multiplied by their fair value, excluding the effect of the vesting conditions, at the date of grant.

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[13] IFRS 2, Share-based Payment, IASB, February 2004, paragraph 1.
[14] International GAAP 2005, LexisNexis, 2004, page 1603

According to IFRS 2 share based transactions can be equity settled or cash settled. If the share based transactions are equity settled than the basic accounting entry is:

> **DR Profit or loss for the period (Employee cost)**
> **CR Equity**

If the share-based transactions are equity settled than the basic accounting entry is:

> **DR Profit or loss for the period (Employee cost)**
> **CR Liability**

4. ESOP IN CROATIA

4.1. Croatian companies and ESOP

Croatian privatization model did not stimulate ESOP programs so they developed in Croatia relatively late. The purpose was to overcome difficulties which have been caused by main privatization model. Furthermore, there are no tax relieves or any other mechanism, at the state level, which would encourage expansion of ESOPs[15].

Today in Croatia there are 100 different ESOP programs. For example, ESOP was implemented in Zagrebačka banka, Pliva, Dalekokvod etc.

It is important to state that there is no special accounting regulation in Croatia for ESOP. Croatian companies are obliged to use International Financial Reporting Standards for composing their financial statements. Therefore, we can say that the only existing accounting regulation for ESOP in Croatia is IFRS 2 and indirectly IAS 26 "*Accounting and Reporting by Retirement Benefit Plans*".

4.2. New privatization law

In the state portfolio there are approximately 850 companies ready for privatization, from which 700 are not insolvent. One hundred of these companies are in 50% state ownership and in 160 companies state has 25%-50% of shares. These percentages do not include daughter companies like of Hrvatske željeznice or Hrvatske šume, so the percentages are even higher.

According to new proposal of the Privatization Law in Croatia, employees would be entitled to privilege purchase up to 25% of company's shares with 25% of discount. It has been discussed that employees would be able, without company's approval, to found ESOP trust. Furthermore, the article according to which ESOP trust must have equity in the equal amount of shares intended to be purchase by employees has been canceled. Ownership and control would be transferred to employees after the first installment is paid to the Croatian privatization fund.

The price of shares could be determined according to average share price in last three months if they are not listed on the stock exchange, or the share price could be determined by qualified valuer.

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[15] D. Tipurić: ESOP i hrvatsko poduzeće, Sinergija, 2004, page 15

The Government has promised its engagement in negotiations with banks regarding loans for purchase of shares according to ESOP.

As it was already stated, in Croatia there isn't any tax relieves for ESOP and it is very important for Government to consider some relieves in order to change this situation. That is important because it can be motivating for other companies, already privatized, to think about this possibility. If there are any relieves for company and/or employee when they have ESOP they will consider its implementation, but if there are no relieves, than the question is, why doing such complex step.

Furthermore, Croatian model of ESOP has greater similarity to *Employee Stock Option Plan*. According to U.S. Securities and Exchange Commission Employee Stock Options Plans should not be confused with the term "ESOPs," or Employee Stock Ownership Plans, which are retirement plans. Many companies use employee stock options plans to compensate, retain, and attract employees. These plans are contracts between a company and its employees that give employees the right to buy a specific number of the company's shares at a fixed price within a certain period of time. Employees who are granted stock options hope to profit by exercising their options at a higher price than when they were granted[16]. In other words, employees have the opportunity to buy companies stock during specific period by predetermined price.

5. CONCLUSION

With this paper we have confirmed that ESOP will be introduced in greater number of Croatian companies through new Privatization Law. We have concluded that ESOP introduced in Croatia trough new Privatization Law has more resemblance to employee stock **option** plans than original employee stock **ownership** plan. ESOP has rapidly developed in world due to existence of tax relieves. Furthermore, in the absence of tax relieves concerning ESOP, already private companies, do not see any benefits from introducing the ESOP in their business, so the absence of tax relieves has impact on ESOP development in Croatia.

When it is being discussed about accounting regulation, we have proved that only existing accounting regulation in Croatia is International Financial Reporting Standard 2. Mentioned standard covers all share-based payment (to employees and non employees). It gives accounting basis for the share-based payments. Nevertheless, IFRS 2 does not give instructions how to account for ESOP phenomenon.

From the above stated we can conclude that it is necessary to develop accounting and tax regulations that would provide basis for development of ESOP and financial reporting frame for ESOP.

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[16] www.sec.gov/answers/empopt.htm, December 2006

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MANAGEMENT OF RELATIONSHIPS BETWEEN COMPANY AND STAKEHOLDERS

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1. INTRODUCTION

Strengthening the competitive potential of a company is nowadays one of the most discussed issues of a company practice. Dynamics of surroundings development, growth of competition, internationalization of the surroundings, in which the company operates – all this poses high demands on the company management. Company management and maintaining company long-term stability in difficult, imperfectly competitive and constantly changing conditions has been more and more demanding. There are many new factors able to influence and continuously disturb the company stability. One of these factors is the existence of groups both within and around the company, which, by pursuing own interests, can to a certain extent influence the company behavior both in the short-term and long-term. The objective of company management is thus to maintain the balance between the company and its surroundings, also from the viewpoint of company stakeholders.

Management of relationships between a company and its stakeholders is an important task for the company management. The identification of strategically important stakeholders of the company, interception of their requirements and expectations and evaluation of their influence should become a part of company strategy, regardless of a size and legal form of the company.

1.1. Company Stakeholders: Theoretical Basis

The notion "interest groups" (stakeholders), referring to company practice, started to emerge in the 1960's as a consequence of dynamical development of the whole society. The actual concept of the existence of "interest groups" is historically much older. Its basis is laid when people in society are determined as money holders or owners of other forms of possession. The fundamental aim of the theory of "interest groups" in connection with company existence has been to create a widely accepted bases acknowledged by the company practice.

Originally, interest groups within a company were considered to be holders of shares and partners, later in literature referred to as "stockholders" and "shareholders" - stockholders in the sense of a person holding shares (securities) and shareholders as partners (co-owners). Nowadays, the term "stakeholders" has been commonly used in the sense of a broader concept of company interest groups also for those groups, which have a kind of "stake" in the

company. Many renowned economists have been looking into the contextual meaning and creating a definition of company stakeholders. Already in 1965 Cohen and Cyret suggested that a company is a kind of coalition formed by individuals and groups with their own goals. They see company existence as a result of agreement among managers, employees, shareholders, customers and others having a stake in the company and may influence the company objectives in different extents. Further development in the given field is credited to Freeman in his work from the year 1984 – "Strategic Management: A Stakeholder Approach". He understands interest groups to be such groups or individuals, who either may influence or may be influenced by the company objectives. Clarkson, in 1994, implies a broader concept to define interest groups within a company. In his definition, interest groups are individuals or groups, which are voluntarily or involuntarily exposed to the risk linked to company activities. In 1995, Bowman made out another definition, where interest groups are considered to be individuals or groups, which have an economic interest in the company and are also the source of its success. According to Bowman, the task of the company management is to balance different interests of individual stakeholders with the ultimate company behavior (Dohnalová, 2004).

Even though a unified definition of company stakeholders has not yet been created, if we conclude all the above mentioned findings of the renowned economists, we can then formulate a widely accepted definition of the company interest groups: they are individuals of groups either influencing or being influenced by the company activities or are voluntarily or involuntarily exposed to the risks emerging from the company activities (Dohnalová, 2004).

Who actually are company stakeholders, then? According to the previously mentioned definition, they are all subjects and groups existing in the company inner or outer environment. It is typical for them to be influenced by the company activities and decisions and at the same time the stakeholders influence the company. If we apply the broader approach to the problems of company stakeholders, then the most common groups somehow linked to the company are: owners: shareholders, investors and company creditors; managers; employees; customers; suppliers; social and political groups.

What kind of stakeholders should a company deal with? Company stakeholders can be divided into two groups: internal and external. If we consider the specification of company inner environment, then such subjects and groups which operate with their own strength inside the company will be regarded as internal stakeholders. These are mainly:

- company owners: shareholders, investors and creditors;
- company managers,
- other employees (excluding managers).

Generally speaking, using the definition of company outer environment, as external groups may be considered those, whose functioning can potentially influence the company efficiency. These could be:

- suppliers,
- customers,
- social and political groups.

From the viewpoint of the listing of stakeholders, these are the groups of stakeholders which are currently the most widely accepted both in the academic world and practical management.

In the real world, other groups may be defined, which meet the criteria of the definition of stakeholders and are able to, in the short or long-term, influence company activities.

2. THE PROCESS OF RELATIONS MANAGEMENT OF COMPANY WITH STAKEHOLDERS

Generally it can be said that relations management of a company with stakeholders is of process character. Using suitable tools, strategically important stakeholders inside a company are revealed and identified, together with their aims and demands. Subsequently, the corresponding means are chosen for their analysis and management from the company's side. The aim of the whole process is to create positive relations to them and use them as a potential source of the company's success, to eliminate the occurrence of negative relations that might interfere with the company's economic activities. In principle, the process of relations management of the company with stakeholders can be specified by means of sub-steps which link to each other, as shown in the Figure 1 below.

1. **Identification of the company's stakeholders**
   - Who they are

2. **Analysis of the company's stakeholders**
   - Their influence upon the company
   - Revealing of their aims and demands
   - Time aspect of their existence

3. **Selection of strategy**
   - Possibilities of action upon stakeholders
   - Means of action
   - Tools of action

4. **Realization of action strategy**
   - Utilization of the selected means and tools in practice

5. **Evaluation**
   - Evaluation and formulation of conclusions and recommendations

Figure 1 Process of relations Management of Company with Stakeholders

Identification of a company's stakeholder means practical application of features characterising these groups. If we conclude all the above mentioned findings of the renowned economists, we can then formulate the basic elements of the company interest groups definition. These elements can also be perceived characteristic signs for the identification side:

- individuals or groups operating both inside and in the company surroundings, with different requirements and expectations;

- having influence on the ultimate company behavior;

- having a stake in the company;

- earnings (voluntarily or involuntarily) the risk linked to company activities.

Analysis of a stakeholder concentrates in principle on obtaining information from several spheres of its action upon the company. First, specification of its influence and role in relation to the company. From the point of view of estimating the stakeholder´s role, its relation to the decision-making processes can be observed, namely if it is a part of the decision-making processes or if it influences them in a certain way. Influence of the stakeholder upon the company can be direct and indirect. Direct influence means that the stakeholder is a source for the creation of the company's performance, and thus directly influences the aim or aims of the company. Indirect influence means that the stakeholder is not a source for the company's performance, but it can have an influence upon the company's sources and thus also upon the aim or aims of the company. Second, as a part of the analysis, time aspect has to be considered, or otherwise said the length of the stakeholder´s existence. The specified stakeholder can operate in the company for a long time, then the observance of its aims and demands is a part of the company's long-term strategy. However, there can also be groups which are formed only for a short time in the company. Having fulfilled their interest they disappear.

The selection of the strategy should include selection of means and tools for relations management with stakeholders as a task of the top management, and also competences and responsibilities should be specified.

Realisation of the selected means and tools is a step in which an important role is played by the middle management. From the point of view of its position it works as a mediator and a collector, and also a supplier of substantial information obtained from the stakeholders existing not only inside but also outside the company.

Evaluation. The last step in the process is, on the basis of the data obtained to evaluate the ways of implementation of the used means and tools and to formulate conclusions for the existing and future decision-making processes of the company, both for the sphere of relations management of the company and for the sphere of the target behaviour of the company.

3. OBJECTIVES OF STAKEHOLDERS: RESEARCH IN CZECH COMPANIES

An important task for the development of definition of stakeholders and its implementation into practice is to outline quantities, which would characterize objectives of strategically important company stakeholders. The concept of the theory of stakeholders with respect to company practice would thus become much more real and tangible. However, the selection of suitable parameters characterizing the aims of company stakeholders is a difficult task, which requires close cooperation of theory-makers with representatives of practice.

3.1. Research Methodology

In 2005, a research among Czech companies was carried out focusing on the conception of problems of stakeholders in Czech practice. Apart from opinion viewpoints on company stakeholders, the research was aimed to evaluate the chosen parameters characterizing possible objectives of selected company stakeholders. Basically, two fundamental aims of the research may be defined:

A1: Determine the opinion viewpoint on company stakeholders in Czech companies.

A2: Qualitative and quantitative view of practice on the parameters characterizing objectives of company stakeholders.

The research was carried out applying the methods of questionnaire survey. Out of the total of 150 questionnaires, 106 were used for further analysis. The empirical data were then processed using simple methods of statistical analysis such as arithmetic or weighted mean. In the following text only summary results shall be presented. Exclusion of partial steps of data processing should not affect the overall evidential ability.

Findings from company microeconomic theories were applied when determining parameters characterizing objectives of the groups of stakeholders. Parameters for the investigated groups of company stakeholders were set based on a detailed analysis of company neoclassical theory and company alternative theories. The questionnaire survey determined whether the parameters correspond with the practical needs. The qualitative evaluation was carried out by the method of marking. The respondents' task was to mark the parameters in the stakeholder's group according to its importance. Average marks of parameters were set when processing the data gained by calculation, i.e. by the methods of weighted mead following the formula:

$$\overline{x} = \frac{\sum_{i=1}^{k} x_i * n_i}{\sum_{i=1}^{k} n_i}$$

The frequencies n_1, $n_2, ..., n_k$ imply weight, i.e. importance attributed to individual variations of the symbol x_1, x_2, ..., x_k. When calculating the average marks, the symbols represent the marks rated by the respondents for individual objectives of the given interest group. Statistical file is divided into sub-files with respect to the legal form of business. Weight is a frequency of occurrence of the given symbol in a sub-file.

3.2. Results of Research

No specific criterion was set to select the respondents. 150 Czech companies were randomly selected and addressed to participate in the questionnaire survey. They were companies with different legal forms of business valid in the Czech Republic. The structure of the respondents from the viewpoint of legal forms can be seen in Table no. 1. These are forms of businesses set by the legislation of the Czech Republic, i.e. natural person (hereafter referred to as "NP"), Co-partnership, Limited Partnership, private limited company (further as "Ltd"), public limited company (Plc), Co-operative and State Enterprise.

Table 1 Number of Respondents from the Viewpoint of Legal Form of Business

Legal Form	Number of Companies (n)	Number of Companies (%)
NP	16	15
Co-partnership	1	1
Limited Partnership	1	1
Ltd	52	49
Plc	32	30
Co-operative	2	2
State Enterprise	2	2
Total	106	100

3.3. Concept of Stakeholders in Czech Companies

To monitor the state of the concept of stakeholders in Czech companies, the following hypothesis was formulated:

H1: Czech companies regard the existence of stakeholders as a real phenomenon, yet they deal with the relationships with them only to a limited extent.

The research findings revealed that 88 per cent of the respondents see the existence of company stakeholders and their influence on companies as a real phenomenon. The remaining 12 per cent did not deal with the given problems. The question whether the company management is familiar with the concept of theory of stakeholders was positively answered by 55 per cent of the respondents.

Based on the findings, it can be concluded that the existence of company stakeholders is perceived as a real phenomenon of today. The problem seems to be the absence of methods for effective implementation of the theory of stakeholders' concept into practice.

3.4. Interests of Groups of Stakeholders According to Czech Companies

To monitor the interests of the selected groups of stakeholders, the following hypothesis was defined:

H2: The interests of groups of company stakeholders may be identified using the parameters individually selected for each stakeholder group.

For the research were chosen those company stakeholders, who directly influence the company efficiency, i.e. owners, managers, employees (excluding managers), suppliers and customers. Generally, those, simply said, expecting some appreciation of capital invested into the company will be referred to as company owners. Ownership and power structure of a company may differ as far as the complexity is concerned. Such a group of stakeholders may be formed by an individual or a group of individuals. The complexity of ownership structure often depends on the legal form as well as company size. Typically, small and middle-sized businesses have a simpler ownership structure, where the owner is one or several persons. With large companies, especially public limited companies, owners as small or majority shareholders often present a numerous group. The common interest of all is ultimately long-term appreciation of the invested capital.

The survey findings concerning possible interests pursued by owners of Czech companies are mentioned in Table 2.

Table 2 Parameters for Interests of Company Owners

Interests of Company Owners	Final Mark	Rank
Maximal Earnings	3,12	2
Minimal Costs	3,40	3
Appreciation of Invested Capital	2,50	1
Preservation of Invested Capital	8,76	6
Financial Independence	3,64	4
Independence in Company Management	4,36	5

A manager is understood as an individual who, through his/her decisions, to a various extent influences the company activities. Subject, extent and character of managerial work differ in levels on which the manager works. This position is affected by other factors such as the company size, character of managerial work etc. Many economic theory-makers see top management as the most important group since it is the bearer of strategic decisions and thus is able to significantly influence long-term existence of the company. Top management also possesses important information. In practice, this managerial level is represented by a group of directors. As for the relation to the company, managers may be employed based on the principle of agency theory, i.e. manager as an agent of a renter, i.e. an owner or owners of the company. For the relationship agent – renter it is typical to delegate decision-making rights. The agent thus makes decisions on behalf of the renter and they mutually share the consequences. The decision-making usually takes place in conditions of uncertainty; therefore, the exact effect of agent's activities cannot be determined. There exists, however, asymmetric information – the agent tends to act in his/her own interest, aiming to maximize his/her own profit.

The survey findings concerning interests of managers in the addressed Czech companies with qualitative evaluation may be found in Table 3.

Table 3 Parameters for Interests of Company Managers and Their Evaluation

Interests of Company Managers	Final Mark	Rank
Extent of Responsibility	2,04	1
Influence on Decision-making	2,43	2
Realization of Own Aims	3,16	3
Pay	3,64	4
Fringe Benefits	5,30	6
Number of Subordinates	6,42	7
Financial Independence	4,36	5

Company staff (excluding managers) is the closest to production processes. It is expected that their relation with the company was created based on free choice and is governed by work contract. Lately, due to the start of information era, there has been a significant qualitative change in the relationship between employees and company. In the past, employees were hired not to think but to perform physical work. Today, routine work has been almost fully automated; computer-controlled production processes replace workers in many production operations. Nowadays, it is the staff that often generates new ideas and is one of the sources of company innovative processes. Pursuing their interests and implementation of the findings into company decision-making processes may significantly influence the company activities.

Parameters regarding the interests of company staff and their qualitative evaluation based on the situation in the Czech Republic are listed in Table 4.

Table 4 Final Marks for Objectives of Company Staff and Their Evaluation

Interests of Company Employees	Final Mark	Rank
Wages	1,24	1
Job Position	3,95	2
Length of Work Contract	3,97	3
Good Working Environment	4,33	4
Application of Achieved Qualification	4,89	7
Good Workplace Interpersonal Relations	4,37	5
Recognition of Work	4,77	6

Suppliers as an external group of company stakeholders possess different forms of inputs necessary to generate company efficiency. Their relations with the company are usually business-like. Their selection is subject to many factors such as a kind of products and services. A group of suppliers is often formed by more subjects. As for companies, suppliers are selected and assessed according to criteria which the company defined, as well as the extent of fulfillment of expectations, which the company hoped to gain from these relationships. A part of the selection process is to assess whether the supplier is able to keep to the contracted terms and meet agreed requirements. For the maintenance of positive relations between the company and suppliers, pursuing suppliers' interests as company stakeholders may have a significant influence on the company performance.

Parameters for interests of company suppliers and their qualitative evaluation resulting from Czech practice are to be found in Table 5.

Table 5 Final Marks for Aims of Company Suppliers and Their Evaluation

Interests of Company Suppliers	Final Mark	Rank
Stable Sales Opportunities	2,82	2
Advantageous Sales Conditions	3,29	3
Advantageous Payment Conditions	3,46	4
Trust and Reliability	2,63	1
Position of Main Supplier	4,24	5
Company Image	4,83	6

Customers represent an external group of company stakeholders. It is known that companies exist to satisfy the needs of their customers. Company customers absorb the company outputs. They are the source of reaching the financial objectives of the company. However, they also symbolize possible uncertainty for the company. Their needs may change in time. The extent of risk resulting from the relationship between customers and company may vary for different firms. Besides effort focusing on satisfying their customers' needs, company management also strives to balance their interests with company objectives. Businesses trying to be everything for everyone usually end up being nothing for nobody. Competitors often take such companies by surprise unless they quickly understand the needs of this group.

Table 6 shows parameters for interests of customers of Czech companies and their qualitative evaluation.

Table 6 Final Marks for Interests of Company Customers and Their Evaluation

Interests of Company Customers	Final Mark	Rank
Good Image of Producer	4,36	5
Guarantee Conditions	4,39	6
Service Conditions	4,32	4
Time of Debt Maturity	4,26	3
Price of Products and Services	1,87	2
Quality of Products and Services	1,81	1

Within the carried-out research, other groups of stakeholders, especially from the company external environment were not investigated. Due to the extensive demandingness these will be subject to further research.

The research findings suggest that the existence of company stakeholders is a real phenomenon also in companies in the Czech Republic. However, the fact is that in most companies the relationships with stakeholders are not dealt with.

The research results mentioned in Table no. 2-6 imply that to discover the interests of stakeholders several parameters can be used to more closely identify and determine their hierarchical organization in the given time.

4. CONCLUSION

Nowadays, economists consider the concept of company stakeholders as compatible with business. Economic reality of company practice shows that groups of company stakeholders may be important sources having the ability to influence the company performance. Value creation for long-term interested owners often runs concurrently with value creation for other interest groups.

The task for economists is to establish basic elements of comprehensive theory of interest groups in companies. Even though such a unified definition has not been created to this day, based on existing approaches it is possible to outline characteristic signs of stakeholders and use them for their identification in company practice. Identification of company stakeholders and interception of their interests is the basis to be able to establish long-term positive relationships between them and companies. These relationships may then become a source of lasting company success and can contribute to the benefit of all parties.

The objective of the development of the interest groups theory and its practical application is not to equalize the relationships of all concerned parties in companies. From the viewpoint of ownership rights this is barely possible. From the viewpoint of social development, however, interests of all concerned parties in companies cannot be ignored.

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COMMERCIAL SPONSORSHIP, BRAND IMAGE AND WTA TOURNAMENT

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1. INTRODUCTION

The integration of sports sponsorship on marketing communication was something that barely existed in Europe at the end of the 1980s. Sports marketing communication was at that time reduced to sports sponsorship in its strictest sense: the placing – in return for money – of logos in those media that traditionally were tied strongly to sports (Lagae, 2005). Consequently, sports sponsorship has increased in popularity and sophistication. According to Kolah (2003), global sponsorship amounted to $26.2 billion in 2003, and Europe represented around one third of this worldwide sponsorship market, with 81% of that market involving sports sponsorship.

Marketing communication has reacted enthusiastically to the growth in scale and professionalism in the sports sector. Due to the proliferation of leisure events in today's society, the awareness and opportunity for commercial event sponsorship is at an all time high. Although attempts at measuring the return on the sponsorship investment have been made (e.g., total event attendance, exit polls, sales following the event, and number of media mentions), an understanding of how sponsorship "works" has yet to be developed (Catherwood and van Kirk, 1992; Javalgi et al., 1994; Meerabeau et al, 1991; Parker, 1991).

Gwinner (1997) proposed a model to explain the mechanisms by which brand image may be impacted through case study sponsorship activities. Specifically, drawing on the theory of meaning transfer from the celebrity endorsement literature, a model is presented which suggests the factors involved in creating an event's image and the subsequent transfer of that image to the sponsoring brand. The aim of this paper is to examine the impact of sport sponsorship on consumer association with sponsors' brands and to explore, within this context, the potential of events as communication vehicles. We also discuss the relations between different communication elements and sport sponsorship, and the effectiveness of sponsorship communications.

WTA Bank Koper Slovenia Open in Portorož is a professional tennis tournament with the prize fund of $145,000, a part of Sony Ericsson WTA tour. Tournament was organized for the second time in the 2006 on the hard court of the Sports Recreational Center Marina Portorož, from September 16th to 24th. Tournaments with similar prize fund there usually attract players

ranked from 20th to 120th place on the Sony WTA tour singles ranking. In the week of September 18th to 24th there are no tournaments in Europe, only in Beijing – China and Calcutta – India. Prize fund must be assured by the official sponsor of the tournament. Beijing offers $585,000 and Calcutta $170,000 of the prize fund. Organizers decided that the prize fund of Portorož is interesting enough to attract important tennis names of the world.

2. LITERATURE REVIEW

In the last decades sport continues to push back the boundaries of our usual understanding of it as something that unites people, calls forth the sport spirit and where financial side is not that important. Sport became extremely competitive, so that the importance of achieving results is sometimes fatal for individuals. Accordingly, the role of capital that supports sport rose sharply. Sponsorship became the main source of assets in sport and an excellent promotional activity for companies that sponsor, especially because more and more people are becoming enthusiastic about sport. In paper we describe a case study about an important sponsorship of WTA tennis tournament Bank Koper Slovenia Open.

After Meenaghan (1991) the definition of sponsorship is:

"Sponsorship is an investment, in cash or in kind, in an activity, person or event (sponsee), in return for access to the exploitable commercial potential associated with that activity, person or event by the investor (sponsor)".

2.1 Sponsorship and communication mix

Sponsorship is a communication mix element where a firm provides some financial support to an entity, which may be an individual (e.g. sports), an organization (e.g. a humane society) or a group (e.g. an orchestra), in order to allow this entity to pursue its activities (e.g. a cultural event) and, at the same time, benefit from this association in terms of global image and consumer awareness of the firm's market offerings (Abratt et al., 1987; Boisvert, 1987). Meenagahan (1991) reports that the practice of sponsorship is quite developed and have become a standard component of the marketing plan.

Surveys conducted among American and European companies have found that sponsorship investments generally pursue two main objectives: increasing consumer awareness and improving corporate image (Armstrong, 1988; Wolton, 1988). A study conducted by Phillips International, resulted in a greater perceived association between the company and the sport event as well as a significant improvement in corporate image (Otker and Hayes, 1987). Anne and Cheron (1991) have studied the impact of sponsorship on consumer awareness. They conclude that recall of the name of the sponsoring company depends on the sponsor's degree of involvement, the amount of prior consumer knowledge about the sponsor and consumer interest in the sponsored activity. In another study, Wright (1988) found that the association between the sponsor and the sponsored entity (and the activity or event) is long lasting, even when the sponsor withdraws.

After Farrelly et al., 2003) in the field of sport sponsorship, a strong market orientation appears to be positively associated with communication, commitment and trust. Hence, those sponsors able to raise their degree of market orientation may expect to derive the benefits

associated with these desirable relationship indicators. However, to raise the level of trust in the relationship will require more than mere communication processes. They suggest that commitment to the sponsorship relationship is positively related to market orientation.

Confusion may exist among the members of target audiences or publics about perceiving sponsorship as advertising even though there are distinctive differences. Although some forms of sponsorship might share similar goals to advertising, i.e. increasing brand or company awareness, and promoting of positive messages about the product or company, it is argued that sponsorship is a means of persuasion which is fundamentally different from traditional advertising (Abratt et al, 1987; Crimmins and Horn, 1996; Hastings, 1984; Wilmshurst, 1993).

The interaction between sponsorship and advertising can be regarded in the heightened marketing communications ambience of the late twentieth century as a strategic rather than uneasy alliance. Likewise, and from the same contextual perspective, the interactions form strategic symbiosis with sponsorship being an indirect, but powerful form of persuasion which potentially can overcome difficulties faced by advertising and other direct forms of persuasion activities, while simultaneously operating in conjunction with advertising and other marketing communications as the strengthening forces overarching the sponsorship communications. Strategic symbiosis is needed in order to get company messages across to consumers in meaningful and cost-effective ways (Erdogan and Kitchen, 1998).

2.2. Sponsorship evaluation

A usual assumption often made in relation to sponsorship is that its effectiveness can be measured in similar ways as advertising. This involves quantifying media overage or exposure of the sponsor, using clippings and column-centimetres in print in duration of exposure in broadcast media, as the unit of measurement (Sparks, 1995). One of shortcomings of this method is that such measures of exposure may or may not translate into a change in consumers' perception and consequently little is usually gained from using them fro performance evaluation purposes.

Another, and sometimes complementary method of evaluation, focuses on the number of impressions made – these are merely another form of opportunity to see measure in which audience characteristics are taken into consideration (Harris, 1993).

There has also been emphasised the importance of measuring sponsorship effects over long term (Armstrong, 1998; Wright, 1988). In particular, Parker (1991) pointed out that while spontaneous awareness of an event and sponsor may be very low initially, long-term effects could be prevalent even years after the sponsorship had ceased, once a meaningful association is developed.

Quester and Farrelly (1998) gathered and defined the factors affecting evaluation:

- emotion, awareness and recall;
- involvement, loyalty.

2.3. Image creation and image transfer

While both advertising and sponsorship can be used to achieve image objectives, sponsorship differs in the manner in which these are achieved. Essentially sponsorship allows the sponsored brand to live in the reflection of the sponsored activity. This reflective approach differs somewhat of more direct approach offered by traditional advertising, and enables sponsors to suggest associations for the brand which advertising can only convey in a more overt and clumsier fashion (Meenaghan and Shipley, 1999).

Keller (1993) has suggested that when a brand becomes associated with an event, some of the associations linked with the event (e.g. youthful, relaxing, enjoyable, disappointing, sophisticated, elite, etc.) may become linked in memory with the brand. The framework presented in Figure 1, adapted from Gwinner (1997) evolvement of McCracken's (1989) celebrity endorsement model, suggests the event image is formed from a number of external and internal factors. Through sponsorship, an event's image, which may be relatively distinct for different consumer groups, may be transferred through association to the sponsoring product.
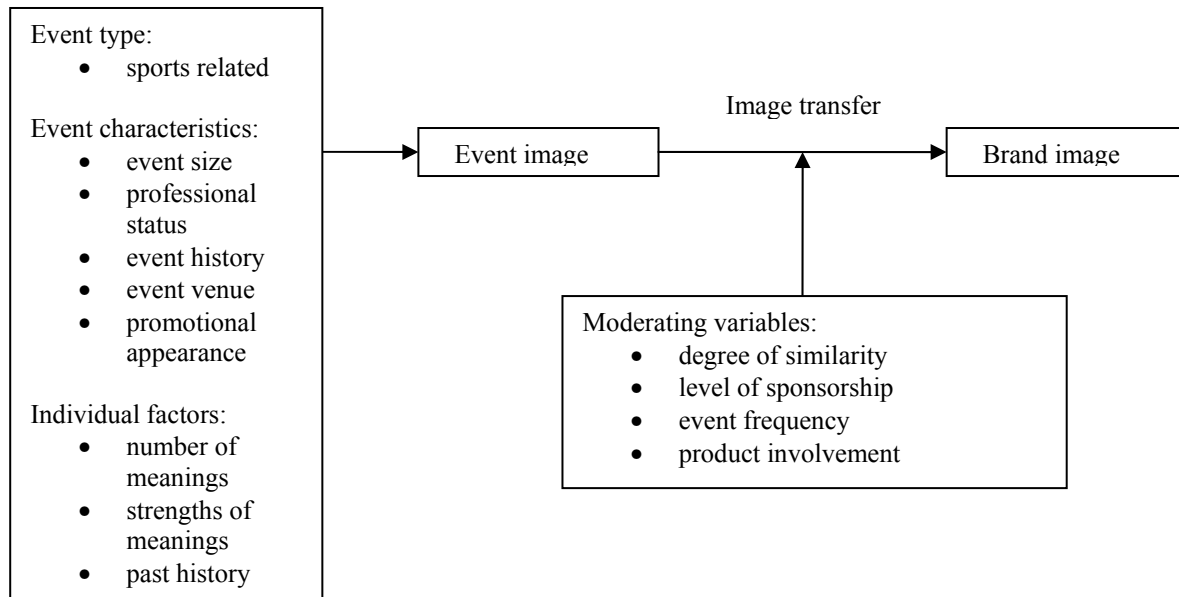
Figure 1:A model of image creation and image transfer in event sponsorship (Source: adapted after Gwinner, 1997).

We are discussing these factors on the case study in the next chapter. Gwinner (1997) implies that a company should consider more than simply the number of potential customers their sponsorship signage and other identifiers will reach. It is important to consider the image of the event, as this image may become associated with the brand.

Given the potentially ambiguous and transitory nature of the event's image, qualitative methods in the form of depth interviews, focus groups, and projective techniques, are likely to provide the best of how consumers perceive/assess a given event. Regarding the sponsoring brand, the model suggests several aspects of sponsorship that should be considered when deciding on potential event affiliations. One aspect that should be considered, in light of image transfer benefits, is the degree of similarity between the event and the brand. Brand awareness benefits are likely to accrue regardless of similarity levels. Companies looking to

add sponsorship activities to their promotional mix should also consider the level of sponsorship and frequency of the event. Exclusive sponsorship in events occurring on a frequent basis will likely maximize the image transfer potential of sponsorship purchase. And finally, the company should consider whether image transfer benefits will actually have any influence on consumers' attitudes towards their brand and ultimately their purchase intention. The model suggests that, in terms of impacting a consumer's attitude towards a brand, low involvement products will be more effective in sponsorship promotions due to the peripheral nature of persuasion taking place (Gwinner, 1997).

3. CASE STUDY OF THE BANK KOPER SLOVENIA OPEN WTA TOURNAMENT

The study was designed as an exploratory study, as Bouma and Atkinson (1995) define it. The purpose of the study was to gain an insight into company's decisions, motivation and benefits of sponsoring certain sport event. We were interested in the sponsors perceptions and practices that are central to the concept of sponsoring. The study was guided by the following research questions:

- How does sponsor understand sponsorship of sport event?
- How does sponsor sees the role of sponsored sport?
- What is the influence of sponsorship activity on the image of sponsor?
- Do consumers associate an event's image with sponsors?
- If there is an image association between event and sponsor; is there a theoretical explanation that can be used to understand this link?

Data were gathered through individual in-depth interviews with marketing director of Bank and with tournament director. The study has some limitations, one of them being the generalization of findings.

Bank of Koper follows three basic motivations when deciding about the sponsorship projects. The strongest motive is certainly the business connection, which can be direct or indirect. Bank tries to help the submissions that come from the working area of bank. So the Bank of Koper funds fireman association, tourist association, ski club, basketball club, handball club, rowing club, tennis club …

Second motive is a communication motive; bank can expand its territorial business area. They sponsor important events in country that attract bigger media attention. Bank increases its recognisability and its image, when sponsoring: summer festival Lent Maribor; Theater gathering Borštnikovo srečanje in Ljubljana, Christmas concert in Auditorium Portorož.

Bank is also motivated to make donations for humanitarian purposes. In such cases they don't charge usual provision (Red Cross of Slovenia, Caritas …). Additional motives sponsorship brings are: realising the sponsor name, raise of image, media coverage, social events, communicating to targeted niche, product/service presentation, competition differentiation, opportunity to tie contacts, increase brand loyalty, sales promotion, etc.

3.1. Bank of Koper attitude to sponsorship

Bank of Koper has positive relation to sponsorship; they sponsor culture, art, sports and humanitarian events and organizations. Bank receives 1600-1700 different sponsorship submissions yearly. Because of limited funds, they can not answer positively to every one. However, 400-500 submissions are approved and this is still a fair percentage. In 2005 and 2006 they approved bigger sponsorship funding to: WTA tennis tournament Bank Koper Slovenia Open, Sailing Association of Slovenia, rally Ferrari race, Basket Club Koper, Handball Gold Club, etc. According to the approved financial contribution of Bank, its status as sponsor can be placed as: exclusive sponsor, main sponsor, and address sponsor, co-sponsor.

3.2. Principles of choosing sponsorship projects

Main principle to choose the sponsorship project is the conformity of sponsored project with the business strategy, goals and target segments of Bank of Koper; they want to be reached with sponsorship. Bank of Koper has produced a Sponsorship manual for this purpose, they address when choosing the right projects. They consider following factors:

- they sponsor organizations, institutions, associations, not individuals (from experience - sponsoring individuals brings to many problems with the delivery of agreement);
- image of sponsored organization (they sponsor organizations, institutions, associations with positive image);
- echo of the project (projects with good communication strategy allow to include and enable more communication forms, they are noticed in wider Slovene area, even if they are of local or regional character);
- timing and geographic harmonization with business activities of Bank, which go on through all year;
- sponsorship or joint sponsorship, when there is a smaller amount of funds, exclusive sponsorship when they sponsor an important event or project;
- exclusive activity (Bank decides for sponsorships that bring them an exclusive position in their activity – banking, as this is a way to build its image and the transparency of their public relations).

3.3. Project selection process

Selection rules are made by marketing department of Bank of Koper. They also collect and accept most of submissions, treat them and prepare the answers, prepare basis for deciding and give an opinion. Head of marketing department arranges received submissions and forwards them into further decision process. Submission has to be made in a written form and has to contain all the elements that allow the marketing department to decide, if they fit with business goals of Bank. These elements are:

- costs;

- time determination of project;

- promotional possibilities;

- structure of target audiences, reached by the project (age, geographic and status determination);

- structure of media, interested in covering the project subject;

- indication, why this project should serve the interests of Bank.

Marketing department also checks the project holder: if he is a Bank business partner; is his abilities are as stated in the submission; if he has at disposal personnel, able to provide promised services; what are his relations with media; has he a personnel in charge for publicity; check his references and the probability that the project will be delivered in the promised framework.

Responsible marketing team weights the appropriateness of project holders. They also decide on the funds amount. About 95 percent of submissions go through this kind of procedure. The remaining 5 percent, submissions exceeding 100,000 EUR are being treated in a different way. They are checked by the board, by president, and later on the collegiums decides its destiny.

3.4. Marketing activities

Marketing activities mix captures additional promotion of the tournament in media - electronic media (TV, internet portals, radio …) and printed media (newspapers, journals …), additional sponsor's promotion, and activities meant for wider public – visitors and popularization of tennis game among youngsters.

3.5. Reasons for participation as official sponsor at the Slovenia Open

Basic reasons for the Bank of Koper participation as the official sponsor at the Slovenia Open WTA Tournament were stated by the Bank President Vojko Čok on the press conference on March 15th 2006:

"First tournament Bank Koper Slovenia Open got very high mark from the organizational, competitive and promotional point of view. I can say that it fulfilled the Bank of Koper expectations, which entered as main sponsor and mark its 50th anniversary. That's why the Bank of Koper decided to repeat our sponsor activity this year, with equal or increased expectations, of course. I believe in the capability of tournament holders and organizers. They are not only one year older but also one year more experienced. Town of Portorož needs similar events and they are also in our interest, as they strengthen the town's recognisability and influence business activity of our business partners, indirectly the activity of Bank of Koper. Bank of Koper will organize the tournament's visit of 700-800 youngsters from all parts of Slovenia, as we spread our banking net through all territory. They will be chosen at the local business units".

3.6. Measurement of sponsorship effects

We can not measure the exact sponsorship effects but we can assess them approximately. Sponsorship effects can be measured with a survey between participants directly after the event or with public opinion pools, in which the interviewed connect the bank with singular direction, strategy or values.

When we talk about direct support to sales, sponsorship shows in the selling effects. We could empirically prove as well, how much contributed the appearance of singular person or team to the sell of certain service.

3.7. Media response

One of the most important sponsorship effects are media publications. There were 60 accredited journalists on the tennis tournament Bank Koper Slovenia Open 2005, from electronic (TV, radio, internet) and printed media. A $140,000 tournament fits in the IV. category of women tennis tournaments of WTA series was very well covered from the media, nationally as much as regionally. In the time of 2005 tournament, September 17th to 25th, TV Slovenia daily transferred one tennis match from the Central court and reported about the tournament in the sport news (after the Evening news and after the Latest news), in the Sport show and some others. Besides TV Slovenia, other televisions reported about the tournament: POP TV, TV Koper Capodistria and Info TV. Live coverage has been produced from three radio journalists of Radio Slovenia. In nine days there were printed more than 80 reports, interviews and tournament articles in all major daily newspapers (Delo, Večer, Dnevnik, Primorske novice, Ekipa, etc.).

In Tournament Press Center it was well provided for good information coverage, from September 19th to 25th, there were organized press conferences with all Slovene players (Katarina Srebotnik, Andreja Klepač, and Maša Zec Peškirič) and with main favorites (Farina Elia, Eleni Danilidou, Medina Garrigues, Klara Koukalova) in front of the big board with all the sponsors logotypes. An official bulletin was issued daily in 200 copies, with all the information about the daily activities on and off the court. Around 300 people read the bulletin in printed version and a few hundred more in electronic version on the official tournament web site www.sloveniaopen.si.

Tennis matches in the time of tournament were visited from 9,000 to 10,000 people. Illustrative information about the power of the tournament: Katarina Srebotnik, Slovene finalist in single and in doubles, was pronounced as the Slovene sports person of the year 2005.

4. DISCUSSION

Commercial sponsorship of sports and other events is in the first place about the improvement of brand equity through raising awareness and/or improving brand image. As sponsorship strategic role in the marketing mix continuous to increase, we should consider its potential to generate a sustainable competitive advantage in the marketplace. In particular, there should be considered two levels of competitive advantage: the competitive advantage of the sponsorship and competitive advantage in the market (Fahy et al., 2004). A sponsor's brand equity is influential in consumers' perceptions of sponsor-event congruence (Roy and Cornwell, 2003). The exposure to a brand's other sponsorships develops an interactive effect which exerts impact on evaluations of current sponsor-event associations; congruence between sponsorships will moderate the interactive effect, thus enhancing or impeding the sponsor-event image association (Chien et al., 2005).

Sponsorship supplements classical marketing communication – marcom elements (advertising, public relations, personal selling, promotional selling, and direct selling). It is true that company chooses sponsorship as an alternative marcom element to achieve wanted strategic goals, mainly economic nature, but sponsorship gains on importance in comparison with other elements. Advertising becomes expensive, its effectiveness decreases, because the target audience is saturated and accepts the messages in a more selective way. Sponsorship allows achieving other communication goals as company builds its image and recognisability in public, credibility, enhances business relationship with target audience, increases the brand awareness, increases sales etc. Commercial sponsorship prevails in the sports related event types. Sponsoring goals are in principle met on a long term.

Regarding our research questions, the study resulted in the following conclusions, mostly descriptive, limited for 'the case' only. Bank Koper Slovenia Open tennis tournament is for sure an event of elegant and prestigious nature. Bank Koper does not sell a typical FMCG product that would need more intense advertising for people to buy it. When sponsoring a sport, which is not a mass sport, it leaves good vibrations in people. They connect and transfer the positive image of the tennis tournament with the Bank of Koper business. The Bank is satisfied with the brand exposure in media and decided to continue with the sponsorship activity. Privileged position of Official sponsor must be seen and felt; it gives a certain competition advantage.

Three basic motivations Bank follows when deciding about the sponsorship projects are: direct or indirect business connection, a communication motive, and making donations for humanitarian purposes. They sponsor culture, art, sports and humanitarian events and organizations. When choosing a sponsorship project, it must be in conformity with the Banks business strategy, goals and target segments, they consider several factors: they sponsor organizations, institutions, associations, and no individuals; image of sponsored organization; echo of the project; timing and geographic harmonization with business activities of Bank; sponsorship or joint sponsorship, when there is a smaller amount of funds, exclusive sponsorship when they sponsor an important event or project; exclusive activity. Elements to be considered through the project selection process are: costs; time determination of project; promotional possibilities; structure of target audiences, reached by the project; structure of media, interested in covering the project subject; indication, why this project should serve the interests of Bank. Marketing activities mix captures additional promotion of the tournament in electronic and printed media, additional sponsor's promotion, and activities meant for wider public. Encouraged by the success of the first tournament, Bank decided to remain sponsor of this event, sponsorship effects were assessed as satisfactory and media response was adequate.

Additional questions for research arise from examination of an event's image transfer to the sponsor, of the sponsor's equity and its impact on sponsorship response. Also, examination of event's property equity on perceptions on consumers' sponsor-event congruence is needed. As a result of its growing importance and lack of attention, more research in the area of event marketing, and specifically the image transfer process is needed (Gwinner, 1997). An exhaustive study (Grimmes and Meenaghan, 1998) of the Bank of Ireland employees' perception of the bank's sponsorship programmes provides a number of additional insights. It seems that the different categories of employees (management, staff) perceived the image transfer of human resources values in different ways. Employees felt that there was more than just its sponsorship projects that made the bank the desirable employer or 'winner' (Lagae, 2005).

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A VIRTUE-MATRIX APPROACH TO
MEASURING CORPORATE SOCIAL RESPONSIBILITY IN LITHUANIA

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                  United Nations Global Compact, European Union

1. INTRODUCTION: BEYOND SHAREHOLDERS TOWARD STAKEHOLDERS

Since Milton Friedman published his provocative title, "The Social Responsibility of Business is to Increase its Profits," the debate of corporate social responsibility (CSR) has focused upon the purpose of corporation and to whom it should be held accountable. While arguing that the sole purpose of a corporation should be to maximize its profits and the corporate managers should be held solely accountable to its shareholders, Friedman, however, did not negate the corporation's responsibility to conform to "the basic rules of the society" embodied in law and ethical custom." (Friedman, 1970)

The concept of stakeholders was introduced by CSR advocates to contest the shareholder view of corporate accountability. Instead of taking a multi-fiduciary stakeholder view, Kenneth E. Goodpaster argued that "the conscience of the corporation is a logical and moral extension of the conscience of its principals," thus providing a philosophical underpinning for the differentiated accountability of corporations to their multi-stakeholders. (Goodpaster, 1999)

With the advent of the new millennium, CSR is gaining increasing momentum, thanks to globalization, while the profit-maximizing notion of corporate responsibility is increasingly becoming part of the problems that trail behind globalization than a solution. The Millennium Poll on CSR conducted by Environics International Ltd. in 1999 reveals that two thirds of citizens interviewed worldwide want companies to go beyond their historical role of making profits, paying taxes, employing people and obeying laws. They want companies to contribute to broader societal goals as well.[1] (Environics, 1999)

In order to fulfill the vision of a more sustainable and inclusive society, United Nations Global Compact[2] was launched in 2000 as a voluntary international initiative to advance the ten principles in the areas of human rights, labor, environment, and anti-corruption. Organization for Economic Cooperation and Development's (OECD) Guidelines for Multinational Enterprises (2000) proffers a set of recommendations to multinational

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[1] The executive briefing of the poll can be found at http://www.mori.com/polls/1999/millpoll.shtml
[2] The ten principles can be found at http://www.unglobalcompact.org/

enterprises covering broader ethical concerns, including employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and taxation.[3] European Union also set itself a new strategic goal in 2000 to become the most competitive and dynamic knowledge-based economy in the world for the next decade, making Europe a pole of excellence on CSR.[4]

2. VIRTUE MATRIX

To help corporations manage their CSR activities, Roger L. Martin proposed a virtue-matrix model to evaluate the returns on corporate responsibility. (Martin, 2002) Martin's virtue matrix consists of two dimensions: the civil foundation at the bottom and the intrinsic frontier above. Two quadrants of the civil foundation are choice on the left and compliance on the right. The intrinsic frontier also comprises two quadrants: strategic on the left and structural on the right.
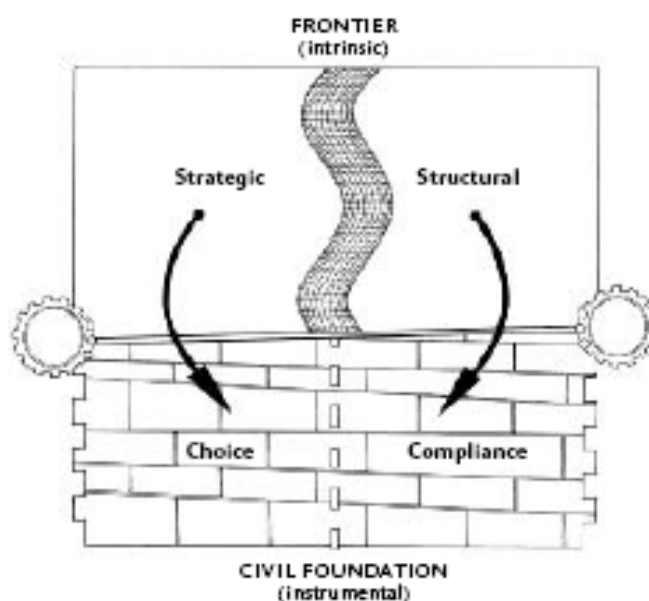
Figure 1 – The Virtue Matrix (Martin, 2002)

According to Martin, civil foundation consists of norms, customs and laws which corporations either choose to observe (choice) or are required by law to comply (compliance). In consistence with the conventional view of corporate role and Friedman's notion of conforming to the rules of the society, a majority of supply of CSR practices comes from this dimension.

The intrinsic frontier is where responsible corporate behavior takes place for its own sake. When such behavior per chance advances corporation's strategy and increases overall supply of CSR practices through peer encouragement, it resides in the strategic quadrant. Structural quadrant is where social change is not possible without collective efforts from various fronts.

Martin recognizes that the line between civil foundation and the intrinsic frontier is not a fixed one, nor is the line between choice quadrant and compliance quadrant, or between strategic frontier and structural frontier. The civil foundation of a society can be deepened

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[3] Source: http://www.oecd.org/about/0,2337,en_2649_34889_1_1_1_1_1,00.html

[4] The political milestones of CSR at the EU level,
http://ec.europa.eu/employment_social/soc-dial/csr/csr_commissionsact.htm

when the socially responsible behaviors in the strategic quadrant are increasingly imitated by peers and thus become norm or those residing in the structural quadrant are later mandated by law. Likewise, norm and custom can also be coded by law and migrate to the compliance quadrant, and vice versa.

Since nations differ in their general levels of civil foundation, anxiety is bound to occur when corporations cross borders. Martin also suggests that supply for CSR has to come from the intrinsic frontier if the supply is to gain any public credit.

In order to understand how the virtue matrix applies in Lithuania, the next section first surveys the legal foundation of the country in support of CSR. This is necessary in order to identify from the two international surveys the practices and attitudes that should belong to the compliant quadrant in the later section.

3. THE INSTITUTION OF LAW IN SUPPORT OF CSR IN LITHUANIA

In October 1992, Lithuania adopted by referendum a new Constitution, establishing a parliamentary democracy and the rule of law. Since then, Lithuanian administration has made great strides in achieving compatible standards with EU and other international bodies. The legal framework is described in four areas of concerns consistent with those of the UN Global Compact.

In the area of human rights, all the basic human rights are established in the Constitution of Lithuania and any international treaty ratified by the Lithuanian Parliament forms an integral part of Lithuanian law. As of July 2006, Lithuania ratified the European Convention for the Protection of Human Rights in 1995 and the majority of all international human rights treaties.[5] Under the assistance of United Nations Development Programme (UNDP), the Lithuanian Parliament also approved a National Action Plan for the Promotion and Protection of Human Rights in 2002.[6]

In the area of labor, the Lithuanian Parliament passed the new Labor Code[7] in 2002 in alignment with the key provisions of the EU, International Labor Organization (ILO) and the European Social Charter. The new Labor Code is the most important law regulating the employment relationship between employers and employees in Lithuania.

In terms of environment, Lithuanian government adopted a National Strategy for Sustainable Development in 2003, which is consistent with UN Rio Declaration on Environment and Development and its action program Agenda 21.[8] The National Strategy recognizes sustainable development as a compromise among environmental, economic, and social objectives of the society.

In 2002, the Lithuanian Parliament approved a National Anti-Corruption Programme.[9] The government also ratifies the United Nations Convention against Corruption (UNCAC) in

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[5] Source: http://www.ohchr.org/english/bodies/docs/status.pdf
[6] Source: http://www3.lrs.lt/pls/inter/w5_show?p_k=2&p_r=2318
[7] Source: http://www.socmin.lt/index.php?1546946388
[8] Source: http://www.am.lt/files/cd_en.pdf
[9] Source: http://www.stt.lt/?lang=en&menu_id=2

December 2006. In a most recent review of Lithuania's compliance with UNCAC, Lithuania was commended for its comprehensive legal and institutional framework to fight corruption. Lithuania also has in place the operational independent apparatus both in preventing and suppressing corruption and was lauded as examples of good practice to be followed by other countries. (Klemencic, 2006)

Being a new member state of the European Union, Lithuania has undertaken the task to contribute to the European strategy on CSR through the EU CSR High-Level Group Work programs.[10] In addition, UNDP has been working with Lithuania since 1992 for the promotion of sustainable human development and other development issues that are closely related to CSR. In 2005, the National Network of Socially Responsible Business in Lithuania was established to improve business strategies for the promotion of the UNGC Ten Principles.[11]

The legal survey above indicates that the legal framework in Lithuania consistent with international CSR standards is already in place. The next section will explore how the two international surveys on CSR in Lithuania reflect on the matrix.

4. MAPPING THE MATRIX

In 2005 the World Bank surveyed business leaders from 243 companies in the Baltic states (80 companies in Lithuania) across different economic sectors, ownership types and sizes to identify private sector views of CSR and the ways in which these views are put into practice.[12]

Partners for Financial Stability Program (PFS) has surveyed CSR reporting of 110 largest listed companies in eleven Central and Eastern European (CEE) countries, including the three Baltic states, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Bulgaria, and Romania, since 2003.[13] As of September 30, 2006, seven surveys have been conducted by the PFS.

The PFS survey focuses entirely on English information disclosure in the annual reports on corporate governance, environmental policies and social policies. Only ten largest listed companies, representing 35% of total market capitalization were surveyed. The survey's representation of overall CSR practices of Lithuanian companies is but symbolic. Nevertheless, the survey may give us a glimpse of how transparent the largest companies are in Lithuania.

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[10] Source: http://ec.europa.eu/employment_social/soc-dial/csr/country/CSRHLG_mandate.htm
[11] Source: http://www.undp.lt/en/index.html?id=150
[12] The WB survey available at http://siteresources.worldbank.org/EXTDEVCOMMENG/Resources/csrpart1.pdf
[13] PFS survey available at http://www.pfsprogram.org/activities_pfs_cee_lithuania.php

4.1.   Perception

Table 1 – Virtue Matrix Mapping of Perception

STRATEGIC FRONTIER	STRUCTURAL FRONTIER

o Stakeholders
   – shareholders (71%)
   – employees (51%)
   – customers (36%)
   – government (5%)
   – local community (5%), & CSOs (nil)
o CSR activities
   – ethical conduct (65%)
   – transparency in operations (60%)
   – addressing stakeholders concern (40%)
   – environmental protection (30%)
   – public relations (< 20%)
o Company role
   – listening to stakeholders (73%)
   – contributing to charities (> 60%)
	o CSR activities
	   – social inequality correction (10%)
	   – stakeholder partnership (< 10%)

CIVIL FOUNDATION – CHOICE	**CIVIL FOUNDATION – COMPLIANCE**

o Company's role
   – making a profit (> 90%)
   – ensuring job securities (88%)
   – protecting employees' health (85%)
   – never using child labor (> 80%)
   – protecting environment (> 80%)
   – creating jobs (80%)
	o CSR activities
	   – compliance with regulations (40%)
	   – environmental protection (30%)
	o Company's role
	   – paying taxes (96%)
	   – complying with regulations (91%)

Three categories in the World Bank survey reveal Lithuanian business leaders' general perception of CSR: their understanding of stakeholders, CSR activities, and the company's role in society. Although perception does not equate actual performance, a high level of understanding is more likely to lead to conformity of corporate behavior.

For the sake of mapping, if a perception receives over 75% of responses, the perception is placed in the choice quadrant. If a perception has to do with legal compliance, that perception is placed in the compliance quadrant. Some perceptions may not produce economic benefits if acted upon alone. Hence, they are placed in the structural frontier. The rest of the perceptions are placed in the strategic frontier.

In the civil foundation, other than the conventional company roles of making a profit, paying taxes, complying with regulations, and creating jobs, there is a high degree of consensus among Lithuania business leaders that the main roles of company should also include protecting employees' health, never using child labor, and protecting environment. In contrast, relatively low percentages of respondents consider complying with regulations and protecting the environment as part of CSR activities. This may be due to different interpretations among Lithuanian business leaders of the two terms.

As many as 65% of respondents consider ethical conduct to be socially responsible activities, followed by transparency in operations (60%), addressing stakeholders concern (40%),

environmental protection (30%), and public relations (less than 20%). These perceptions are placed in the strategic frontier.

It is not surprising that shareholders receive the most responses as the main stakeholder. However, judging by the convention view of business, it is curious that the percentage is not higher (only 71%). Other than the shareholders, the next two stakeholders receiving the most responses are employees (51%) and customers (36%). Since no stakeholder breaks the 75% threshold, stakeholder concern remains a strategic consideration in CSR management.

Only 10% of respondents consider social inequality correction CSR activities. Since the social inequality cannot be addressed by one company alone and since it may lack economic incentives for other company to follow suit, this perception is placed in the structural frontier.

A closer look at the perception mapping seems to reveal an inconsistent picture. While there is a high degree of consensus among Lithuanian business leaders about non-conventional roles of company, including protecting employees' health, and protecting the environment, their perceptions of employees and local communities as main stakeholders do not match up. And only 30% of respondents consider protecting the environment a socially responsible activity. One possible explanation is that such terms as stakeholders and CSR are still foreign to most Lithuanian business leaders. This may result in a certain degree of bias in their responses.

4.2.   Employee Projects

Table 2 – Virtue Matrix Mapping of Employee Projects

STRATEGIC FRONTIER	STRUCTURAL FRONTIER

o Annual Report Disclosure (PFS)
    – Employment Policy (4/10)
    – Employee Development/Benefits Policies (7/10)
    – Health and Safety Policy (2/10)
    – Labor standards compliance reporting (1/10)
	o [Annual Report Disclosure] (PFS)

CIVIL FOUNDATION – CHOICE	CIVIL FOUNDATION – COMPLIANCE
o <u>Anti-discrimination policies</u> (norm) o <u>Employee training</u> (nearly all) o Code of conduct (80%, half written, half verbal) o Employee health protection plan (majority, not norm)	o ILO standards (41% implementation rate).

Contrary to the weak perception which regards employees as a key stakeholder (50%) and social inequality correction as CSR activities (10%), anti-discrimination policies and employee training programs are the norm among Lithuanian companies. In addition, a great majority of Lithuanian companies have employee health protection plans and either written or verbal codes of conduct for the perceived benefit of improving employee relations.

Although the new Lithuanian Labor Code aligned with ILO standards has entered into force since 2003, only 41% of Lithuanian companies actually implement it and as many as 38% of them are not aware of the standards. Filling this awareness gap should effectively improve the law compliance rate and enrich the civil foundation for ethical employee relations.

According to the PFS survey, publicly traded companies in Lithuania may choose to disclose their employment practices in their annual reports for strategic reasons. The most reported practices are their employee development and benefit policies. Four out of the ten largest listed companies disclosed their employment policies on the annual report, while only two reported health and safety policy and one reported their compliance status with the labor standards. These companies are likely to have more prominent CSR practices than others so as to put them in the strategic frontier. To create a level playing field and enrich the civil foundation, mandatory reporting will be necessary.

4.3.   Social Projects

Table 3 – Virtue Matrix Mapping of Social Projects

STRATEGIC FRONTIER	STRUCTURAL FRONTIER
o Social projects (55%) – Health (>50%) – Education (>50%) – Community development (<50%) – Technical training (<30%) – Support to ethnic minorities (<10%) – Housing (<10%) – Other (> 30%) o Annual Report Disclosure on Social policies – Social performance (28%) – Community patronage/sponsorship (3/10)	o [Annual Report Disclosure on Social policies]
CIVIL FOUNDATION – CHOICE	**CIVIL FOUNDATION – COMPLIANCE**
o [Social projects] (55%)	

A majority of Lithuanian companies (55%) are increasingly engaged in social projects for perceived benefits such as better reputation, better local community relations, survival of business in the long term, and enhanced shareholder value. Again, the concern for local community relations should suggest that local community be a key stakeholder. On the contrary, only 5% of respondents agree. Those who are engaged in social projects are most likely to collaborate with civil society organizations (CSOs), followed by municipal institutions, other businesses, and governmental institutions. The three most popular social project areas that Lithuanian companies are engaged in are health, education, and community development. Their involvement in social projects may fall into the strategic frontier if the economic incentives are strong enough to invite other companies to follow suit. Considering the high percentage of Lithuanian companies involved in social projects, more awareness, recognition and peer pressure may significant improve CSR supply in this quadrant.

Reporting social involvement in the annual reports is not a widely accepted practice in Lithuania. Only a strategic few disclose their social performance and community involvement in the annual reports, according to the PFS survey. Since social performance reporting is not necessarily aligned with economic incentive (structural frontier), collective pressure may be needed to increase its supply.

4.4.   **Environmental Projects**

Table 4 – Virtue Matrix Mapping of Environmental Projects

STRATEGIC FRONTIER	STRUCTURAL FRONTIER

o Environmental projects (68%)
o Environmental education to employees (33%)
o Environmental certification (29%)
o Annual Report Disclosure on Environment
  – Environmental performance (31%)
  – Compliance with environmental standards (3/10)
  – Report on water and energy use (1/10)
  – Disclosure of responsible parties (0/10)
  – Supply chain management policy (0/10)
	o Collaboration of environmental projects (majority)
	o Supply chain management
	o [Annual Report Disclosure on Environment]

CIVIL FOUNDATION – CHOICE	CIVIL FOUNDATION – COMPLIANCE
o [Environmental projects] (68%)	o Recycling programs (50%) o Environmental Impact Assessment (EIA) (59%)

Consistent with the understanding that environmental protection is one of company's main role in society, over 68% of Lithuanian companies engaged in environmental projects during the past three years and they are most likely to collaborate with municipal institutions, government institutions, and other businesses (strategic frontier or choice civil foundation). Currently only 29% of Lithuanian companies have an environmental certification, which is more important for large companies engaging in international business (strategic frontier). Considering that both recycling and environmental impact assessment are mandated by law (compliance quadrant of the civil foundation), it is not surprising that they are widely practiced among Lithuanian companies.

Only 31% of Lithuanian companies voluntarily disclose their environmental performance in the annual reports and only three out of ten largest listed companies in Lithuania disclose their compliance status with the environmental standards in the annual report. (Strategic frontier) One company reports its water and energy use. No company discloses who or which department is in charge of environmental affairs inside the company and how the company integrates its environmental policy with supply chain management. Transparency of environmental practices is still in short supply. (Strategic frontier)

A noticeable absence in the reporting by the ten largest listed companies is their supply chain management policy. Environmental standards create a level playing field, allowing companies to compete on the same ethical standards. However, there is little economic incentives for companies to push their suppliers to adopt the same standard. To ensure that the environmental standards are not compromised throughout the supply chain, external pressure for collective actions, either voluntarily or involuntarily would be critical for its delivery.

4.5.   Governance and Anti-corruption

Table 5 – Virtue Matrix Mapping of Governance and Anti-corruption

STRATEGIC FRONTIER	STRUCTURAL FRONTIER

o Anti-corruption policies (24%)
o Annual Report Disclosure on Governance
  – Governance Structure (7/10)
  – compliance with corp. governance code (0/10)
  – shareholder's rights (0/10)
  – code of business conduct (0/10)
o Annual reports (68%)
	o Policies for financing public candidates (13%)
	o [Annual Report Disclosure on Governance]

CIVIL FOUNDATION – CHOICE	CIVIL FOUNDATION – COMPLIANCE
o Stakeholder consultation (79%)	o Annual Report Disclosure (PFS) – Audit relation information (only public companies) o Corporate governance code (2007)

It is noteworthy in the World Bank Survey concerning the level of transparency among respondent companies. Only a minority of companies have adopted anti-corruption policies (24%) and policies on financing candidates for public offices (13%). The percentage of companies planning to have an anti-corruption policy is expected to increase to 30% while the percentage of companies with policies for financing candidates is expected to decline to 8%. This declining trend of the latter may imply limited or no economic benefit of doing so, making them structural quadrant activities whereas the former may be a strategic frontier behavior, driven by enlightened self-interest. Further investigation is nevertheless needed to identify the motivation behind the divergent trends of the two practices.

Regarding annual report disclosure, the Vilnius Stock Exchange of the OMX Group requires that its members disseminate information including annual reports, to the investors via the exchange's website in both Lithuanian and English.[14] Not surprisingly, all ten companies have published English annual reports, which are also accessible on the internet. Out of the five corporate governance disclosure items, all ten Lithuanian companies surveyed have included the audit relation information in their annual reports (compliance quadrant) while only 7 of them have disclosed their governance structure in their English annual reports (strategic frontier). Starting 2007, all companies listed in the Vilnius Stock Exchange is required to report to the Exchange their compliance status with the Corporate Governance Code and explain their non-compliance.[15] (Compliance quadrant)

The Corporate Governance Code approved by the management board of the Exchange in 2004 and revised in 2006 covers relationships between bodies of corporate management and supervision, the company's shareholders and stakeholders. As a result of this new requirement, it is expected that the corporate governance compliance by listed companies in Lithuania should see significant improvement in year 2007. As for non-listed companies, their voluntary compliance with the corporate governance code is likely to remain in the strategic frontier.

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[14] Source: http://www.baltic.omxgroup.com/index.php?id=2805
[15] Source: http://www.baltic.omxgroup.com/index.php?id=2700

According to the World Bank Survey, 79% of Lithuanian companies regularly consult their stakeholders, thus qualifying the practice a choice quadrant activity. Considering their perception of stakeholders, this means that they most often consult shareholders, employees and customers on a regular basis.

5. BARRIERS FOR CSR SUPPLY AND FORCES TO INCREASE ITS SUPPLY

Roger Martin identified two major barriers to increasing socially responsible behaviors of corporations: a dearth of vision from corporate leaders and the lack of economic incentives. The first concerns the strategic frontier while the second the structural frontier.

5.1.   The Strategic Frontier

A dearth of vision implies that corporate leaders are unable to see the potential benefits of CSR behaviors and therefore unwilling to take the risk of engaging in the CSR activities that fall into the strategic quadrant. Fortunately, the case of Lithuania is not a pessimistic one. The World Bank Survey shows that only 9% of Lithuanian business leaders do not see any internal benefit from adopting CSR practices and only 1% do not see external benefits. This explains the increasing supply of CSR activities in the strategic frontier in Lithuania. The high awareness of perceived benefits by no means guarantees their engagement in such activities. More concerted effort may still be needed.

Two forces are specifically related to the increase of CSR supply in the strategic frontier: consumer agitation and peer encouragement. (Martin, 2002) In a developed country with a high level of concern for the common good, consumer agitation may create an ample demand for socially responsible products and services. As soon as business leaders are able to identify the unfulfilled demand for CSR, the economic incentive should become self-evident and the risk minimized for providing them. Like other post-Soviet societies in the CEE region, Lithuania is only in its nascent stage of developing a civil society. The exercise of consumer power is just awakening while caveat emptor predominates the marketplace. To break the dominance will require a continuous consumer education and legal protection to tip the balance of the scale.

Success stories and best practices of CSR in the strategic frontier can often beget more success stories and innovation by other companies. The establishment of the national network of socially responsible businesses in Lithuania serves as a congenial platform for sharing CSR experiences among businesses. Publicizing the best practices helps lower the perceived risks of CSR engagement and encourages virtuous competition among peers for best practices. The World Bank Survey shows an increasing trend of CSR supply in Lithuania within the next five years in the areas of anti-corruption policies (from 24% to 30%), disclosing environmental performance in the annual reports (31% to 38%), disclosing social performance in the annual reports (28% to 39%), and engagement in social projects (55% to 60%). These numbers imply a catalyzing effect among Lithuanian companies for the supply of CSR practices in the strategic frontier, where the public expectation has not been well formed and corporate supply of CSR is most likely to receive public praise and thus engender goodwill. The increasing supply of CSR practices in the strategic quadrant will eventually migrate to the civil foundation, advancing the norm and custom of the society.

5.2.   The Structural Frontier

The lack of economic incentive often leads to corporate inertia to CSR innovation. This creates the most problem for the supply of ethical conduct in the structural frontier. Martin suggests that the most effective tool to tackle the corporate inertia is through collective action from government regulators, non-governmental organizations (NGOs), or the corporate leaders themselves.

The government's role is two-pronged: administering sticks (regulation), and/or offering carrots (economic incentive). In the case where economic incentives are missing, direct regulation provides a level playing field in which no individual company is disadvantaged for engaging in CSR activities. Alternatively, governments may use public policy to offer economic incentives to motivate businesses to engage in CSR innovation.

A few downward trends were noted in the World Bank Survey: a few large companies plan to stop publishing the annual reports; the percentage of companies having a policy of financing public campaign is expected to decline; fewer companies plan to consult their stakeholders on a regular basis. Further investigation on the motivations behind these trends may help identify proper public policy tools to use to effectively increase CSR supply.

According to the World Bank Survey, the greatest barrier to CSR practices is the lack of appropriate regulation, followed by the cost concern, no link to financial success, lack of visible results, no government involvement, changeable government policy and others. The greatest perceived risk in adopting CSR practices is the increased operating cost, followed by adverse impact on profitability and increased regulation. A great majority of Lithuanian companies believe that tax incentives can best assist them in improving CSR practices. The top ranking barriers and perceived risks are essentially a direct result of a lack of economic incentives in pursuing CSR activities, hence demanding a government intervention either in the form of regulation or creating incentives.

As regulators, governments will always face the challenge of designing effective public policies to achieve its ends. Despite what the Lithuanian government has done to integrate internationally harmonized CSR standards to the Lithuanian laws and regulations, about two thirds of Lithuanian business leaders perceive that government policies do not encourage CSR investments, 24% do not know, and only 11% believes that government policies encourage CSR investments. This perception begs for an answer. The first and the most straightforward answer would be weak law enforcement mechanism as it relates to stick administering and/or insufficient supply of carrots. It may also be possible that the perception is skewed. Lithuanians often say that laws are needed just to break them, revealing a tenacious Soviet legacy of a deep distrust in the rule of law. (Vasiljeviene, & Vasiljevas, 2006) It is curious how much the Lithuanian perception of government policies is still influenced by such a Soviet legacy.

As the survey shows, nearly one quarter of Lithuanian business leaders are not aware of the impact of government policies upon CSR investments. Another statistics show that only 41% of the Lithuanian companies implement the core labor standards adopted by the ILO, which has been integrated into the Lithuanian Labor Code effective since 2003. This leads to a third possible explanation: low awareness.

Lithuania's transition from the Soviet polity to the rule of law was largely accomplished by importing laws and standards from the developed countries and the international societies where the observed norms and customs are higher than those observed in Lithuania. This approach creates great tension between the two quadrants of the civil foundation because the imported laws and standards are not rooted in the norms and customs of the Lithuanian society. This also creates a public impression of changeable government policy. Combined with the Soviet legacy of public distrust in the rule of law, the observance of these laws and standards is undermined.

One possible solution for this is increasing dialog between the government and its stakeholders both during the process of making law/policy for consultation and awareness raising, and after for compliance assurance and policy evaluation. The survey confirms that more than 60% of Lithuanian business leaders agreed that more dialog with stakeholders and government would make CSR practices more relevant.

In addition, 42% of non-financial service companies in Lithuania (more than other subgroups) identified the lack of government involvement a high barrier. Since the service sector represents 59%[16] of Lithuania's gross domestic product and has been one of the key drivers for growth, this finding may imply a significant structural barrier for CSR engagement. Further investigation can help identify the types of government involvement needed in the non-finance service industry.

Another cause of public distrust could be the slow public sector reform, particularly relating to anti-corruption. Since government is an important stakeholder of businesses not only as a regulator but also as public service provider, a tarnished government image would no doubt greatly damage the government's desire to promote CSR.

Aside from the government, Martin suggests that the most effective pressure for collective actions would be that from corporate leaders themselves. The intention is clear: to avoid the onerous one-size-fits-all government regulations. Such initiatives require visions from among corporate leaders driven by enlightened self-interest for the common good. Despite its popularity among many developed countries, the World Bank Survey has no indication of concerted effort made by Lithuania companies to increase CSR supply.

Perhaps a more effective instrument than collective actions is mandatory disclosure of CSR practices. The mandatory disclosure of compliance status with the Corporate Governance Code by all listed companies in Lithuania starting 2007 is a good example. The mandatory disclosure can produce two effects: 1) increasing transparency without heavily increasing regulatory cost, thus relying upon the market to reward and discipline corporate behaviors; 2) encouraging peer competition for better practices. Many EU member states have adopted mandatory disclosure to encourage CSR practices, most prominently in the areas of environment, social impact, and socially responsible investing.

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[16] World Bank Survey, p.92.

6. CONCLUSION

From a transition economy to a new EU member state, Lithuania has adopted a top-down approach for CSR development by importing western norms and standards to Lithuania to enhance its civil foundation. Despite the widespread public complaint upon the government, the burden of CSR development largely rests upon the government, at least in the initial phase, due to the lack of an active civil society and perhaps the inured public proclivity to rely upon the government to provide for the common good, another Soviet legacy.

Against this background, the Lithuanian government has an indispensable role to play in the promotion of CSR. This research finds that mandatory reporting on CSR activities can be a very effective tool to increase CSR practices falling in the structural frontier. Government should also take an active role in promoting CSR awareness among the public and the businesses, thus stimulating corporate visions and consumer agitation.

This research finds that business awareness on ethical employee relations is the highest of all areas researched in this paper. When most, if not all, Lithuanian companies have an anti-discrimination policy and provides employee training, those who don't are likely to pressured to follow to avoid market discipline. However, their conformity to the norm may gain little or no credit for the companies.

Considering the significant numbers of companies voluntarily involved in social and environmental projects, the awareness level among Lithuanian companies is by no means negligible. More companies are likely to be motivated to follow the trend for perceived economic benefits. The establishment of the national network of socially responsible businesses in Lithuania thus serves as a congenial platform for sharing CSR experiences among businesses. Despite the peer encouragement, the disincentive for non-conformity may not be strong enough to overcome corporate inertia. Public policy may help provide incentives to increase CSR supplies in these areas.

Another effective tool to counter corporate inertia where economic incentives are absent or awareness level is immaterial is mandatory reporting. This tool has been effective in increasing accounting reporting transparency in the past while its effect on Lithuanian companies' compliance with the corporate governance code remains to be seen. The greatest challenge to Lithuanian policy makers may be to maintain an open dialog with their stakeholders for the assurance of higher transparency and compliance, and to speed up public sector reform to break down the deeply ingrained public distrust. A strong political volition is required to see significant improvement.

CSR promotion requires active participation from both the public and the private sectors. The virtue matrix is meant for helping corporations to manage their CSR activities strategically on the ground of enlightened self interest, and to increase their shareholder value. It can also help policy makers identify effective policy tools to facilitate corporate supply of CSR practices in different quadrant. With concerted efforts from both sectors, Lithuania should see its civil foundation greatly enhanced in the years to come, reaching the pole of excellence on CSR.

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ENTREPRENEURIAL INFRASTRUCTURE DEVELOPMENT AND SOCIAL RESPONSIBILITY CONCEPT:
Case of Croatia

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Key words: *SME, entrepreneurial infrastructure,*
Social responsibility

> „...Small businesses are not social isolates. Small business owner-managers are engaged in a wide range of social activities and their norms, ethics, „ways of living" cannot be divorced from attempts by others to affect their behaviour... „
> (Spence, Rutherfoord, 2003.)
>
> „Giving something back"
> (Worthington, Ram, Jones, 2006.)

1. INTRODUCTION

An important determinant of the Croatian economy development lies in the development of small and medium enterprises, which is not based only on the number of start-ups but also on the positive change of infrastructure as pre-condition of such development.

As infrastructure significantly determines not only economic but also social behaviour of business subjects, this work aims to investigate the interrelation of small business development, entrepreneurial infrastructure, and social responsibility of companies. The basic hypothesis of this paper is: **The concept of corporate social responsibility provides means for development of entrepreneurial infrastructure, and consequently the SME sector.**

 The aim of research is to determine the extent to which business subjects are socially responsible and to which extent this responsibility is determined by legal regulations on one side, and by understanding of the role each business subject plays in a particular society on the other side. Right because of that the concept of social responsibility is the focal point of this research.

Responsible Entreprenuership, Responsible Business Practice, and *Corporate Social Responsibility* are not the areas of responsibility only for big companies. Disregarding their size (in terms of employees, turnover or assets) or ownership structure, companies voluntarily integrate their business activities into the social framework within which they operate, taking into consideration the issues of environment protection and interaction with the main factors in their surrounding (*European Commission's Green Paper*).

In a wider sense, the concept of social responsibility is linked to the *Triple Bottom Line approach*, or the idea that sustainability of any organisation (consequently also of any company) is conditioned by financial security, by minimization of the negative impact on the environment and harmonisation of activities in terms of social expectations.[1]

The SME sector[2] is nowadays a significant factor of economic development in many countries. Small and medium sized enterprises make more than 90% of global operations and employ between 50 and 60% of global workforce. It is estimated that in 2003 in the EU there were more than 20 million small and medium enterprises, which provided employment for more than 80 million employees. During the last decade, small and medium enterprises in Croatia have recorded an increasing number of organisational forms: sole traders, limited companies, cooperatives. The SME sector in Croatia accounts for 99% of all registered entities. It employs 55% of the total number of employees, accounts for the growth of 44% GDP and 60% of the total exports.[3] As they represent an important economic power and have a key role in the national economic development strategy,[4] any research into small and medium sized companies and their relation to the concept of social responsibility will have a wider economic and social significance.

Assuming that social responsibility of small and medium enterprises is determined by general and specific features of the SME sector, the main features of small and medium sized enterprises in Croatia will be presented pointing to those which can have a significant influence on comprehension and implementation of the social responsibility concept.

Also, the development level of entrepreneurial infrastructure will be analyzed considering the forms and spread of support to small and medium entrepreneurs in Croatia, with a special highlight on the concept of social responsibility of SMEs.

This work consists of five parts. The introductory section defines the research problem, hypothesis and work structure. The second section describes the main features of the SME sector in Croatia based on the results of research carried out in 2003, 2004, and 2005. Also, entrepreneurial support (infrastructure) is analyzed in terms of contents, coverage and variety of support segments.

The third section deals with the basic elements of the social responsibility concept especially highlighting the relation between CSR and the SME sector. The fourth section presents the entrepreneurs' attitudes to ways, motives and level of inclusion of the CSR in Croatia,

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[1] According to: *Observatory of European SMEs 2002/No 4: European SMEs and social and environmental responsibility.*
[2] The SME concept is defined in different ways in different economies. The usual definition considers the number of employees and the value of assets. In the EU, SME are enterprises with less than 250 employees.
[3] According to: Ministry of industry, labour and entrepreneurship, September 2006; www.mingorp.hr; 25.10.2006.
[4] *Program razvoja malog gospodarstva*, Vlada RH, 2001.

pointing out obstacles and opportunities to define activities and support measures in implementation of the concept of social responsibility in the SME sector.

The concluding section determines the basic directions and activities of the CSR implementation in Croatia.

The *Figure 1* shows the model of interrelation of small business, entrepreneurial infrastructure and social responsibility.
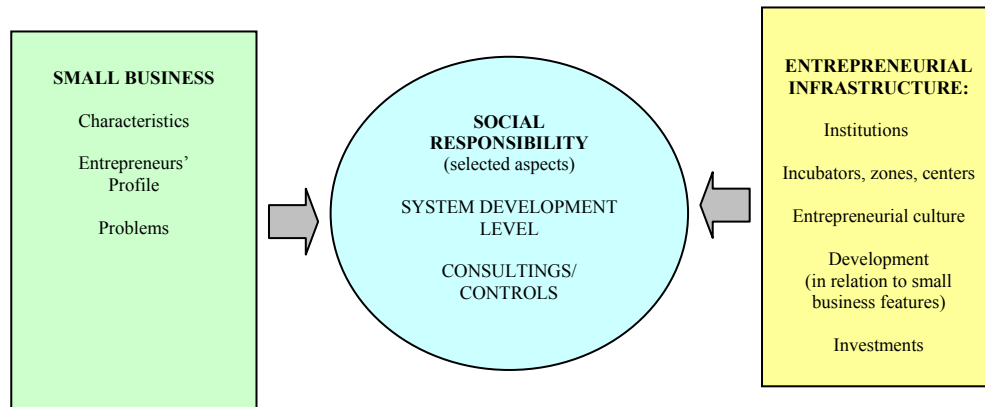
Figure 1. Model of research into social responsibility of the SME sector

2. ENTREPRENEURSHIP IN CROATIA

2.1. Basic characteristics of the small business sector

Compared to big companies, small and medium enterprises have different characteristics in terms of structuring and procedures, organizational culture and behavior, treatment of human resources, and relation to market and customers.[5]

Organizational structure of SME is usually shallow with few management levels, limited range of delegation of authority and responsibility, low level of specialization, and vague distribution of activities, but very flexible with relatively short information flows.

In this sector, formal rules and internal operation procedures are generally not developed. The level of procedure standardization and formalization is low. Planning and control system is simple, including the usual existence of informal evaluation, control and reporting procedures. In compliance with organization, operational processes are flexible and adaptable.

Work and behavior of employees is predominantly influenced by owner-managers, their sets of values and behavior patterns. As a rule, procedures and behavior are result oriented, and personal authority and responsibility of the owner-manager are unquestionable. General

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[5] According to: *SMEs characteristics, strengths and weaknesses versus large organisations; in: Rabbe, S.S; Welge., A.; Martin, K.; (2006); Sustainable management in the global economy - An innovative approach to improve small and medium sized enterprises SME); www.ctw-congress. De/ifsam/download/track_20; 25.11.2006.*

knowledge and ability to manage a variety of business activities are required. Creativity and innovation are encouraged.

In terms of markets, SMEs are mainly oriented to the local markets, less frequently to the national or international markets. In most cases they have a small number of customers, with whom they are personally acquainted, and a limited number of external contracts.

The main weaknesses of SMEs are generally related to a higher or lower degree of accessibility to the main resources: finance, technology, knowledge. On one hand, financial limitations often result from the owner-manager's unwillingness to diversify the ownership structure. On the other hand, access to the international financial market is limited due to informational asymmetry, lack of security and reputation.

SMEs also have limited access to knowledge, whether they want to attract and maintain people with special talents, develop their own educational or training systems, or have their human resources specialize within the existing organizational structure. Double capacity for individual positions is rarely provided, formal differentiation of functions are rare, and thus also specialization in specific knowledge and skills.

During the fifteen years of intensive development of the SMEs in Croatia, the main characteristics of this business sector have become obvious. This work will highlight those that can have a significant effect on defining and implementation of the social responsibility concept in the Croatian SMEs.

It is to be noted that coherent empirical research in entrepreneurial activities is rare in Croatia. Also, statistical data follow-up, similar to that carried out in the EU[6], is not defined, and therefore the possibility of strategic influence on development and encouragement of small business is questionable.

According to the results of available research,[7] the Croatian small business is predominantly led by the male population aged 40 to 50 (54%).[8] Namely, among entrepreneurs more than two thirds are men. Considering the stimulation system for target entrepreneurial groups (women, young population), it is realistic to assume that the share of women entrepreneurs is less than one third. Namely, there is no empirical research to support the thesis that it is only nominal proprietorship and engagement of women in entrepreneurship without their real activities in management or responsible positions in small business.

Lack of knowledge, considering the demands of environment and business, even when operating in the local market, can be a serious problem of small business in Croatia nowadays. This refers both to formal education and to business experience in general. Namely, 48% of entrepreneurs have secondary education, and 21% of them college or university education.

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[6]E.g.: *Observatoty of European SMEs*, European Commission
[7]This refers to the research results obtained in the project: Leburić, A., Krneta, M., *Profil poduzetnika – Socio-ekonomsko istraživanje 2003.,* Naklada Bošković, Split, 2004.
[8] Entrepreneur profile research was carried out on the representative pattern of 642 entrepreneurs (8% of the entire set of 8.028 entrepreneurs) who had used the loans of the Croatian Bank for Restructuring and Development in the period up to 2003.

Research results also show that secondary education or only elementary education is the predominant education level in the families of entrepreneurs (in 43% of entrepreneurs father has secondary education and in 28% mother has secondary education).

Most entrepreneurs (83%) do not have any preliminary entrepreneurial experience either in establishing or managing some form of business.

The population of women-entrepreneurs, nominal or real, is on average more educated in comparion to men: 57% of them have obtained higher formal education, but they also rarely have preliminary entrepreneurial experience (16%).

More than half of entrepreneurs can speak a foreign language, but about one fifth of them can speak only their mother tongue. As most entrepreneurs are oriented on the local market (50%), in competition that majority of them (51%) describe as strong and sharp, it can be assumed that their available knowledge and experience have to a large extent affected their start and formulation of business activity as well as their current operation.

The fact is that almost 70% of entrepreneurs started up in the activity in which they had been previously employed, which allows the assumption that they are at least generally informed about the way of operation.

2.2. Motives and intensity of entrepreneurial activity

The results of the *GEM research for Croatia in 2005* show that the *TEA necessity index*[9] increased in 2005 to 3.09 (in comparison to 0.85 in 2002). For the same period, the *TEA opportunity index* for the population of Croatian entrepreneurs was 2.92 in 2005 in comparison to 2.18 u 2002. The TEA index in Croatia increased from 3.62 in 2002 to 6.11 in 2005, which meant moving from the 32nd to the 19th position among countries included in the GEM project.[10]

The research results suggest that in the segment of SME development Croatia is faced with a sudden increase of entrepreneurial activity (at the level of setting up new sole proprietorships and companies). Entrepreneurial activity is for the most part motivated by existence of some other way of earning one's living, e.g. working for someone else in the SME sector, because the already set up businesses operating for more than 42 months are developing and increasing their workforce, or obtaining a job in large enterprises that are in the breakthrough stage.

If in the current entrepreneurial population knowledge is the limiting factor of an efficient operation and expansion to markets beyond the local market, it is realistically assumed that the new entrepreneurs will be faced with the same problem and that the available knowledge and experience will have a decisive effect on the rate of survival of start-ups in the near future. It is also obvious that acquiring the lacking knowledge and obtaining the needed

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[9] *TEA index – Total Entrepreneurial Activity* index expresses the number of people in 100 adults 8population aged between 18 and 64) trying to set up their own business or being owners/managers in some active enterprise operating not longer than 42 months. *Necessity –based entrepreneurs* are entrepreneurs because they did not have an alternative choice. They are compared to *opportunity-based entrepreneurs* who are entrepreneurs because they took up an opportunity. – *Global Entrepreneurship Monitor Hrvatska 2002*, p. 16;

[10] *GEM project* included about 40 countries (in 2005, 35 carried out this research using the same methodology). It is estimated that the countries included in the *GEM project* make 65% of the world population and 92% of the world GDP.

experience represents the crucial factor of influence on the survival of the SME sector in Croatia.

In the SME sector in Croatia, micro enterprises are predominant (72%).[11] Their developmental orientation is relatively limited. One quarter of all entrepreneurs are thinking about developmental breakthrough. Most of them think either that long-term development planning is pointless (18%) or that their current position is good (24%) or they are aware of the need to plan and implement long-term development of their business, but do not have the possibility to control that segment (23%).

The predominant size of small and medium enterprises in Croatia in addition to lacking (often inadequate) knowledge and experience, and economic strength to use the available knowledge[12] affect the limited capacity of small and medium enterprises in terms of strategic planning. This most frequently results in untimely noticing of business opportunities or in blindness to developmental possibilities. Small and medium enterprises neither have strategic management nor awareness of the need for strategic development.[13]

However, the research results[14] suggest that entrepreneurs are mostly aware of the limitations related to available knowledge and experience. Namely, more than half of them estimate their developmental prospects (53%) and technological equipment (59%) as moderate. Just under half of them (49%) are also critical towards the available intellectual capital (in terms of their own education and education of their employees, availability of opportunity to acquire new skills and knowledge) and possibility to computerize their operations (47%). Still, most entrepreneurs (63%) estimate that the possibility to ensure the needed funds is moderate, or that finance is the main lacking resource.

Most significant for their business are considered the economic factors, including the problem of financing (40%) and knowledge of legal framework (25%). Less decisive factors in their opinion are provision of professional skills (14%) and favorable political conditions (13%).

Consequently, when defining the profile of the Croatian SME sector in general, the results of the comparatively rare empirical researches suggest that:

- Entrepreneurial activity is increasingly selected as the way to earn one's living (most frequently as solution to the current status of unemployment, unregistered work with or without compensation),

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[11] Meaning an enterprise with up to 10 employees.

[12] Referring to the development level of the professional knowledge markets available to entrepreneurs in the form of consulting services. In principle, it can be said that such market is comparatively undeveloped – in the stage of professional formation and establishment and dependent on influence factors beyond the entrepreneurial requirements and needs. For instance, any form of entrepreneurial proposal elaboration (such as business plan or investment study) are demanded only because without such documentation entrepreneurs are not allowed to apply for loans or start negotiation with potential investors (creditors). There is demand for professional services of lawyers and accountants, but to the extent to which it is prescribed by the legal framework for business operation.

[13] The literature on the SMEs sector identifies the general *awareness problem SME* (*Maskell i dr.; 1998*) the lack of *strategic awareness (Gibb, Scott; 1985)*, or correlation between the kind and volume of planning and performance of SMEs (*Matthews, Scott, 1995*).

[14] *Leburić, A., Krneta, M.,op. cit.*

- Knowledge and experience necessary to set up a successful business and ensure a socially satisfactory survival rate are often inadequate.

<li type="arrow">SMEs (at least those of them that recognize the importance of knowledge and skills) have no sufficient economic strength to obtain the necessary knowledge and skills on the market.

<li type="arrow">SMEs are oriented to a short-term comprehension of their operation, because they lack the necessary knowledge, skills, information and awareness of development strategy.

2.3. Development level of entrepreneurial infrastructure

Entrepreneurial infrastructure in Croatia is being developed concurrently with the development of the SMEs sector. As a whole it is an area of national interest on the level of the central government and the local government units. Entrepreneurial infrastructure in Croatia generally comprises:

- Provision of material preconditions for setting up an autonomous business by establishment of entrepreneurial zones,[15] incubators, and entrepreneurial centres;

<li type="arrow">Grants for development of entrepreneurship in target groups (youth, women, war veterans), development of cooperatives, financing of marketing activities, introduction of new technologies, new products, business networking;

<li type="arrow">Provision of financial resources for set up of businesses, or investment in development by subsidizing interest rate based on the trilateral contract,[16] and

<li type="arrow">Training of entrepreneurs, mostly by entrepreneurial centers, in the stage of preparation for establishment of the new business (start-up entrepreneurs).[17]

The value of total investment into development of entrepreneurial infrastructure in Croatia in 2005 was 161.6 million kunas. In 2006 it reached 202.8 million kunas or on average about 3 thousand kunas per each small or medium enterprise, excluding sole traders and cooperatives. Investment in terms of individual items of entrepreneurial infrastructure development is shown in the Table 1.[18]

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[15] According to the data of Ministry for business, labor and entrepreneurship, financial support has been given to establishment of 270 entrepreneurial zones, on the area of 3810 ha, in which 1663 businesses operate employing more than 16.7 thousand of employees (www.mingorp.hr; 25.10.2006).

[16] This refers to the contracts between the Ministry of business, labor and entrepreneurship, local government units (counties, towns) and commercial banks (project called *LOCAL ENTREPRENEUR OF DEVELOPMENT).*

[17] Croatian Bank for Restructuring and Development is also involved in the processes of education and training as the government developmental and export bank by financing training of those entrepreneurs who apply for loans intended for start-ups as a special target grou

[18] *Ministry for business, labor and entrepreneurship; www.mingorp.hr; 25.10.2006.*

Table 1. Investment value and dynamics into entrepreneurial infrastructure development in Croatia (2005-2006) – in million kn

Item/year	2005.	2006.	Share (2006)
Training and education	42,9	39,8	20%
Subsidies & guarantees & grants	27,5	54,6	27%
Entrepreneurial zones	89,9	97,1	48%
Other	1,4	11,4	6%
Total	**161,7**	**202,9**	**100%**

In the total value of investments, the relative share of investment into organization and arrangement of entrepreneurial zones is 48%. Subsidizing of interest rates,[19] government guarantees and grants as forms of financial support to SMEs participate with more than one quarter of the total investment value.

Since 2001, total investments have been constantly increasing, which is shown in the Figure 2.[20]
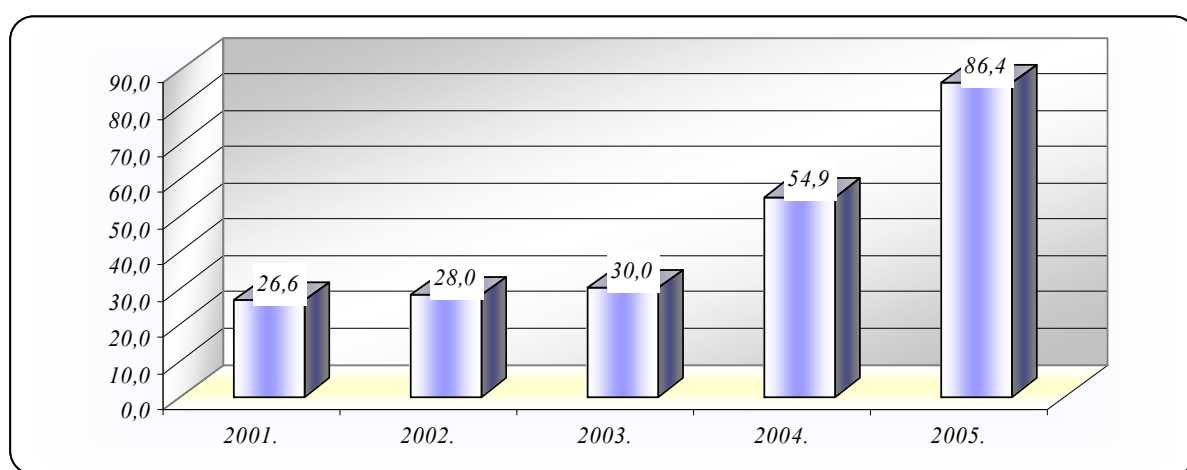
Figure 2. Value and dynamics of investment into entrepreneurial zones

As shown in the Figure 2, in the period of 2001-2005, the value of total investments into entrepreneurial zones was increased by more than three times.

The value of investment in entrepreneurial zones in terms of individual counties shows that almost a quarter of total investments (70.9 million kunas of the total 297.4 million) refer to the investment in three counties: Varaždin, Osijek-Baranja and Međimurje. These counties have the most developed SME sector in comparson to other local government units in Croatia.

The predominant way of distribution of incentives for entrepreneurial infrastructure development is by public competition. Selection criteria are determined on the local government unit level, most frequently neglecting developmental documentation (strategy)

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[19] Subsidizing of interest rates refers to provision of more favorable financial resources to credit capital assets and working assets in the SME sector in comparison to crediting offered by commercial banks.
[20] *www.mingorp.hr; 25.10.2006.*

which is either lacking or exists only formally without mechanisms to control development strategy implementation and performance.

In the current conditions it is very hard to determine the development level of entrepreneurial infrastructure in Croatia, particularly in terms of its harmonization with the development level of the SME sector, both in volume and form variety, including the segment referring to stimulation of socially responsible behavior of small and medium enterprises.[21] Such valuation is possible only if based on coherent empirical research of both the Croatian SME sector development level (taking into account not variety of entrepreneurial forms but their characteristics) and entrepreneurial infrastructure development level.

Finally, it is to be noted that investment into development of entrepreneurial infrastructure, even in the form of incentives, does not mean support to small business as social category. Establishment and development of autonomous business operation is based on the principles of business performance in relation to operational efficiency, increase of output volume, market, employment, export, etc.

3. CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY

3.1. Concept and development

The concept of *Corporate Social Responsibility (CSR)*, as already stated, refers to the social responsibility of companies. It can be said that the concept implies company commitment to ethical behavior and contribution to economic development, demonstrating respect towards people, communities, societies and environment.[22] According to the European Commission[23] CSR is the way in which companies decide to contribute voluntarily to a better society and cleaner environment.

Social responsibility of business, which is another name for CSR, started to develop in the late Middle Ages,[24] when the growth of commerce enabled rich merchants to raise funds for orphanages, hospitals and schools.

In the mid 19th century, when companies became the moving force of development, first trusts were founded. They were especially important in American economy in the first half of the 20th century as they allowed solving of numerous social and developmental problems.

The Second World War brought economic advantage to the USA, and in American society community volunteering was developed as well as donation of non-monetary contributions for common purposes. What makes the essential difference between the American and European economy is the fact that in the American practice the non-profit sector is recognized

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[21] For instance, according to the available data for the SME sector in the EU, about 8% of SMEs enjoy some form of government support (tax relieves, subsidies, free access to information, etc) if they participate in activities directed to social responsibility outside of the company. *European SMEs and social and environmental responsibility,* European Commission, p. 7.
[22] Korporativna društvena i socijalna odgovornost: Pitanje uzimanja ili davanja?, www.meritormedia.hr
[23] European Commission, (2001), Promoting a European framework for corporate social responsibility, Green Paper, Industrial relations and industrial change, Employment &social affairs, str. 5.
[24] Bežovan, G., (2002), Socijalna odgovornost gospodarstva i iskustva u Hrvatskoj, Revija za sociologiju, Hrvatsko sociološko društvo, Zagreb, No. 1-2.

as a substitute for the public sector, which makes government social welfare costs comparatively low. In European countries the tradition of government responsibility is deeply rooted, and social welfare costs are covered by tax revenues.

The globalization process during the eighties and the nineties of the 20th century brought about stimulation of social responsibility strategy in individual business entities. Thus it is estimated that in the mid-nineties the American business entities contributed $ 7 billion for public welfare purposes, in Japan such contribution amounted to $ 1.5 billion, while in Europe it was between $ 1.8 and 2 billion. Most of these funds were intended for education, and then some for social services, art and culture, housing, environment protection, and recreation.

The beginning of the 21st century shows an obvious trend of increasing social demand for a greater corporate social responsibility and environmental credibility. In this sense, companies are required to take an active part in improvement of not only communities in which they operate, but also global society and life quality. In these terms, the practice responsibility for employees, shareholders, owners, customers, suppliers, and communities in which they operate can have different names. In the USA such practice is called *corporate philanthropy*, in the British tradition it is described by the concept of *corporate citizenship*, because companies have the status of citizens and therefore must accept certain obligations for the community in which they operate, while in other European countries this is called *corporate social responsibility*.[25]

3.2. Importance of corporate social responsibility

Corporate behavior in compliance with the concept of social responsibility provides important benefits for the companies and for the wider social community. According to some researches the benefits from implementation of the social responsibility concept can be seen in:[26]

- Significant increase in sales,

- Increased ability to attract new customers or users,

- Reduction of operational costs,

- Motivated and committed workforce,

- Increased ability to attract talents,

- Increased productivity,

- Improved product or service quality.

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[25] Bežovan, G., op. cit.
[26] Korporativna društvena i socijalna odgovornost: Pitanje uzimanja ili davanja?, www.meritormedia.hr

In order to obtain benefits for the company,[27] managers have to:[28]

🔸 Be sensitive to issues affecting the lives of people with whom they live and work,

🔸 Show understanding of social conditions which they could affect positively,

🔸 Consider the social effect of their financial and business decisions on a wide range of society members, shareholders, and environment,

🔸 Be aware not only of what their company produces but also in what way.

Nowadays it is obvious that financially more powerful companies are guided by the principle of strategic social investment into community infrastructure, therefore they invest in schools, childcare institutions, medical institutions, financing of additional healthcare, educational and social welfare projects. Doing that, company managers want to be included in such investment as it enhances their interest in the outcome of such venture. In principle, most companies have moved from social responsibility to corporate social innovation. They see needs of community as an opportunity to develop ideas and display new technologies, find new markets, and solve long-term business problems.

Besides the above mentioned economic dimension, social responsibility also has another facet related to the global operation of companies. Namely, the problems resulting from pollution, child labor, whole-day women labor, and unfairly low wages in paid for work carried out undeveloped countries have raised the public awareness in developed countries of the need to make multinational companies change the ways of their operation. Therefore multinationals are pressured to be ethical in their operation. The negative influence of multinational companies oriented to maximization of their profits and not to social responsibility was pointed out by Naomi Klein in her book *No logo*.[29]

3.3. Social responsibility in EU and Croatia

According to the European Commission Programme,[30] Europe continues to focus on the company social responsibility, but in the way which will provide society based on knowledge, sustainable economic growth, and stronger social cohesion. Such definition of company social responsibilities is affected by the following factors:[31]

🔸 New concerns and expectations of citizens, consumers, public institutions and investors in the context of globalization and great changes in industry,

🔸 Social criteria which increasingly affect investment decisions made by institutions and individuals both as consumers and investors.

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[27] USA researches show that in selecting products of the same price and quality 78% of respondents decide to buy products of the corporations which donate for medical research, education, or similar projects. Consumers form their attitudes under public influence and buy more from those who contribute to public welfare. According to Brežovan, G., op. cit.

[28] Korporativna društvena i socijalna odgovornost: Pitanje uzimanja ili davanja?, www.meritormedia.hr

[29] Klein, N., (2002.), No logo, bez prostora, bez izbora, bez posla, bez logotipa, V.B.Z., Zagreb

[30] European Commission, (2001), op. cit., p. 4.

[31] Ibid, p. 5.

⊕ Rise of anxiety over business activities detrimental to environment,

⊕ Achievement of transparency of business activities through media and modern information and communication technologies.

In Croatia, which is a European country by its historical, geographical and cultural characteristics, there are unfortunately no significant researches on corporate social responsibility. Research into corporate social responsibility was carried out by Bežovan,[32] with a hypothesis that in Croatia there are significant donation potentials, financial and human, which in developed partner relationship with civil society organizations and government can be mobilized for public benefits.

Also, the author's working hypothesis was that in Croatian economy social responsibility for community problems, through donation and sponsorship, is not normally part of the corporate business policy. Furthermore, reasons for donation are not conscious, and donation procedure is not transparent. Companies do not know what they will obtain or what they could obtain in return if they developed a transparent donation procedure.

Dealing with corporate social responsibility this research was based on empirically untested fact on selective influence of politics on donation and sponsorship in the past decade. The conclusions of this research showed that economic and political instability in the last ten years did not favor promotion of corporate social responsibility in Croatia. In the privatization process of socially owned enterprises the concept of corporate social responsibility was marginal. Tax regulations were often changed regardless of evaluation of corporate responsibility to contribute to solutions of social problems, and donation for public welfare was not stimulated by these regulations.

The type of social state that is being developed in Croatia does not stimulate development of socially responsible business. Businesses pay high taxes and contributions for social and public needs and thus cannot strive to solve problems in society or community.

The government cannot help "suggesting" directly or indirectly where corporate donations should go, sometimes even exposing businesses to political pressure. It is really difficult for the government to recognize socially responsible companies as equal and reliable partners.

The research has shown that a comparatively small number of business entities is about to build socially responsible relationships in communities in which they operate. They cannot see what they can get in return for such investment and by how much their value can be increased by such practice.

The culture of corporate social responsibility in Croatia can be improved by globalization processes – by entrance of foreign companies and privatization of public services.

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[32] Bežovan, G., op. cit.

4. SOME ASPECTS OF IMPLEMENTATION OF THE SOCIAL RESPONSIBILITY CONCEPT IN CROATIAN SMALL AND MEDIUM ENTERPRISES

The SME sector in Croatia, although increasing in number of businesses, is predominantly in the start-up stage of businesses, and mostly established as necessity-based entrepreneurship.

This entrepreneurship is based on the limited access to important resources, either in terms of knowledge and skills or finance. In such conditions small and medium enterprises often do not have any formulated conception of social responsibility either with reference to their own operation or to their environment. Expanding within the limits of micro-enterprise, small business in Croatia predominantly reflects the personal attitude of owner/managers not only in terms of its operation and environment but also in terms of social responsibility. Predominant short-term dimension of business operation and lack of long-term strategic development planning most frequently results in lack of rules and procedures within the enterprise and in relation to its environment, unless it is explicitly demanded by the legal framework of operation.

Development of entrepreneurial culture, the public image of SMEs and their inclusion into social activities (participation in the local community projects, donations, sponsorship, participation in sport activities and cultural events of the community, etc.) are developed to the extent to which SMEs primarily achieve satisfactory financial results.

The SME policy in relation to its environment is predominantly of *receptive* character. SMEs expect and demand support (relieves) from their environment (the state) as the crucial factor of operation, or survival. According to research results,[33] they deem their functioning poor or inefficient in the following areas:

- Safety at work (60%),

- Compliance with technical standards and regulations (55%),

- Customer protection (53%), and

- Environment protection (52%).

The first three attitudes can be identified as elements of internal dimension of social responsibility in SMEs. The fourth attitude refers to the external dimension of social responsibility. Responding to the direct question about their environment most entrepreneurs (66%), describe it as *clean and healthy*. About 23% of entrepreneurs describe it as *polluted* while 11% of them is not at all interested in environment. Since there is general correlation of personal attitudes and scale of values of owner/manager and the enterprise, it can be assumed that, in terms of environment protection, the owner's opinion is predominant, and not the attitude of enterprise.

Small and medium entrepreneurs are very skeptical with reference to development of entrepreneurial ulture in Croatia. Almost one third of them (29%) think that entrepreneurial culture in Croatia is nonexistent. Some of them (28%) believe that entrepreneurial culture will

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[33]

be developed concurrently with the inclusion of Croatia in Euro-Atlantic integration and normative harmonization of the SME sector.

The predominantly *receptive* character of development policy in the SMEs is also shown in responses of entrepreneurs with reference to the development strategy of the SME sector. More than 40% of suggested changes refer to the tax system (especially tax relieves), financial system (lower price of capital), control system (reduction of unregistered work). About one quarter of entrepreneurs think that legal regulations related to the SME sector is insufficient, therefore they suggest: strengthening the rule-of-law, new legislation related to SMEs, introduction of efficient state administration, development of consulting function for the SME sector.

The attitudes of entrepreneurs suggest predominant short-term approach to the SME development, or solving of the problems which they routinely face in their operation. They also hint at the unordered condition of the entire economic system in which SMEs are expected to function orderly. On the other hand, entrepreneurs feel that unordered system and frequent changes present a threat to their survival. Consequently, it is difficult to expect long-term development planning of SMEs in such conditions.

5. CONCLUDING REMARKS

The SME sector in Croatia has been developing during the last fifteen years under very unstable social and political circumstances. Nowadays the sector accounts for an increasing number of business activities, a great influence on the GDP, employment and exports.

In spite of inadequate statistical references to small business (which would be at least partly similar to those in the EU) and few empirical researches in this sector, it is obvious that entrepreneurial population is for the most part in the start-up stage.

Knowledge and experience are most frequently recognized as a limiting resource, although entrepreneurs are more apt to declare financial means as such.

Small business is oriented to short-term operation. Lack of strategic planning skill is most frequently obvious.

The social responsibility concept in the SME sector is not formally defined either with reference to the internal operation segments or with reference to the environment. Social responsibility can be measured by the financial strength of the small and medium enterprise, but it mainly takes form of company presentation in its direct environment (sponsoring sport events and cultural events, participating in the local community projects, etc.). The fact is that donation and sponsorship are not part of entrepreneurs' business policy, and that there are no conscious reasons for donation. This can be said both for big and small entreprenurs, especially for the latter who most frequently demand government support. Big entrepreneurs generally donate funds for humanitarian purposes. In such cases they do not consider donation as an investment and do not follow it up as they would an investment. As in Croatia corporate social responsibility is still not seen as social investment, the starting hypothesis of this research that the concept of corporate social responsibility provides means for development of entrepreneurial infrastructure cannot be accepted. Namely, development of entrepreneurial

infrastructure is the government concern. This development takes place concurrently with the development of the SME sector and from year to year it is gaining importance.

Regardless of the increasing investment into entrepreneurial infrastructure, it is hard to associate its development level with the predominant profile of the small business sector and answer the question on the harmonization of their development level. It can only be pointed to the need for a coherent empirical research of the Croatian SME sector and of the entrepreneurial infrastructure development level.

In general, from the aspect of social responsibility of SMEs, it is considered important to develop awareness of the need for strategic planning, which will allow comprehension of business operation as a long-term, balanced and constantly growing activity. In that way preconditions will be created for inclusion of all the aspects of internal and external social responsibility in SMEs beyond the legal framework aimed at achievement of more efficient operation and a recognizable position of SMEs within the community.

In development of entrepreneurial infrastructure guided by the intention and contents of the *EU Green Paper,* it is important to use measures and activities enticing the socially responsible behavior in SMEs which will lead to recognition of direct and long-term effects of such behavior. Support measures can be implemented in education to raise awareness of social responsibility in SMEs, and also as tax relieves which can have a positive effect on responsible behavior of SMEs.

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THEORIES OF THE FIRM RECONSIDERED – SURVEY OF GOALS OF THE FIRM IN COMPARATIVE CORPORATE GOVERNANCE SYSTEMS

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1. GOAL OF THE SURVEY

Since the aim of the survey[1] is to test various theories of the firm from the perspective of the goals of the firm in comparative corporate governance systems, we have tried to present a review of economic goals of the most successful companies in Great Britain, Germany and European Union. The emphasis of the survey is on testing different hypotheses and competing theories of the firm by empirical evidences collected through the answers of business people on the questions on their own behavior.

Although in defining the goals of the firm various theories of the firm take a hypothetical motivation of managers, the method of hypothetical motivation has a similar shortcoming to the method of questionnaire or interview, since the hypothetical motivation could be as unreliable as the expressed motivation. Nevertheless, it is more realistic to assume that motivation expressed in questionnaire is closer to the goals of the firm than the performance measures as defined by the law and practice of performance, depending on the requirements of macroeconomic policy, competition, industry structure, education and motivation of management and employees.

Comparing Mayer's (Deakin, Hughes, 1997, p. 152) argument that "actually, the roots of the long-lasting debate on the governance could be … attributed to the associations of this kind" (that performances of the firm in large depend on the kind of corporate governance), with the opposite argument of Shleifer and Vishny (1997) that institutional differences do not determine the definition of company goals, but the degree of the law protection of large shareholders stake, the goal of this empirical research is, first, to determine whether there are considerable differences between goals of the firms in Great Britain, Germany and European Union, second, to show possible explanation of the results of the survey – are they due to the institutional differences in corporate systems or there prevail general institutional similarities, and third, what would be the implications of the results to the two main differing concepts in

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[1] The paper refers to the empirical part of the doctoral research, An *Analysis of Goals of the Firm in Comparative Corporate Governance Systems*, Kuljak, M., (2005), University of Montenegro, Faculty of Economics, Podgorica.

theories of the firm – the concept of bounded and the concept of unbounded rationality. In case that results show significant differences exist, that would mean, according to the Mayer's argument, that is due to the institutional differences between the two corporate systems and that different theories are appropriate for different systems, which further means that they could not be considered as general. On the contrary, if results show that no significant differences exist, an explanation should be search for in a wider variety of institutional characteristics (as Shleifer and Vishny explain), what would lead to the more universal character of the theories of the firm which are not refuted.

2. METHODOLOGY OF THE SURVEY

In order to compare the goals of the firm in comparative systems of corporate governance and to test the validity of theories of the firm from that perspective, this survey compares 300 most successful companies in Great Britain, Germany and European Union, a 100 per country. Companies from Great Britain and Germany are taken as ranked by *EU 15000 Largest Companies, 1998*, and EU registered most successful companies not belonging to any particular country were taken out from *The Times 1000,* 1998. 32 companies, out of 300, responded to questionnaires, which present a low response rate (10.66%). Survey had been pursued from January to March, 1999.

An instrument for data collection was structured questionnaire sent by post mail to the addresses of board of directors of selected firms (with the approval by Windham B. Hornby, who used the same questionnaire in a similar research in Scotland in 1993). In order to enable comparison with previous empirical works in the area, the questionnaire encompasses a number of questions from recent researches. As Hornby says (1995), use of post mail questionnaire has a long tradition in research on firm behaviour, beginning from Hall and Hitch in 1930, through Skinner, Shipley, Jobber and Hooley. Answers are statistically processed firstly in each sample group separately (Pearson coefficient - x^2), and then between the groups, by testing null hypotheses (ANOVA, *F - ratio*).

3. ANALYSIS OF THE RESULTS

3.1. Sample

Having in mind the research question, goal and research environment (the need to determine a sample in a very short period of time, in conditions when there is no control over the sample, and when there is no intention to determine a representative sample, with determined resources for research), the most suitable technique for the sample selection was 'sample as defined by researcher', particularly the type of sample which is 'suitable' for the research, meaning that there is no rule, since the selection depends on the research question and goal.

The research question of the work is defined as follows – what is validity of particular theories of the firm from the perspective of the goals of the firm in comparative corporate governance systems? Goals of the research are to test the validity of various theories of the firm from the perspective of the goals of the firm in comparative corporate governance systems.

Validity and understanding of data in such a research environment depend more on way data were collected and the analyzing skills i.e. on the logic behind the sample selection, than on the size of the sample. As far as this particular research is concerned, basic logic behind the sample selection is that there is very small variation among population under research, since we assume that the causes of the patterns of firms' behavior stem from the characteristics of particular systems of corporate governance.

Table 1 presents a sector distribution of the sample.

Table1. Sector distribution of the sample

Sector	Great Britain		Germany		EU	
	Number	Percentage	Number	Percentage	Number	Percentage
Services	4	36.4	2	28.5	7	50.0
Production	5	45.5	3	43.0	2	14.3
Extraction	0	0	0	0	1	7.1
No answer	2	18.2	2	28.5	4	28.6
Total	**11**	**100.0 %**	**7**	**100.0 %**	**14**	**100.0 %**

Sector distributions of samples are very similar in Great Britain and Germany (43-45% of firms operates in production sector); in Great Britain 36% of firms are in service sector and in Germany that percentage is 28.5%. Among EU registered firms 50% responses were received from firms in service sector. 'No answer' answer represent 18.2% of the firms from Great Britain, and approximately 28% of firms from Germany and EU, each.

Tables 2 and 3 show size of firms and degree of competition (market structure) under which they operate.

Table 2. Size of firms

Answer	Great Britain		Germany		EU	
	Number	Percentage	Number	Percentage	Number	Percentage
Less than 50	0	0.0	0	0.0	0	0.0
51 to 200	0	0.0	0	0.0	0	0.0
201 to 1000	1	9.1	0	0.0	1	7.1
1001 to 5000	0	0.0	0	0.0	2	14.3
More than 5000	10	90.9	7	100.0	11	78.6
Total	**11**	**100.0 %**	**7**	**100.0 %**	**14**	**100.0 %**

In each sample received responses come from the firms with more than 5000 employees, which makes the results more reliable, since the large firms are intersections of prevailing typical characteristics of corporate governance in particular systems.

Table 3. Degree of competition

Answer	Category	Great Britain		Germany		EU	
		Number	Percentage	Number	Percentage	Number	Percentage
1 to 4	Monopoly	0	0.0	0	0.0	2	14.3
5 to 10	Oligopoly	2	18.2	1	14.3	3	21.4
11 to 25	Monopolistic competition	1	9.1	0	0.0	1	7.1
More than 25	Competitive	8	72.7	6	85.7	8	57.1
Total		**11**	**100.0 %**	**7**	**100.0 %**	**14**	**100.0 %**

Degree of competition, or market structure of selected samples show that considerable greater number of firms in Great Britain and Germany (72-85%) operates in competitive environment, while this percentage in the European sample is 57%, with considerable percentage of firms operating under oligopoly conditions (21.4%), the same as in Great Britain (18.2%) and Germany (14.3%). Pure monopolistic market has been registered in 14.3% of European firms, while in Britain and Germany there are no such firms in the sample. Under monopolistic competition operates 9.1% of British and 7.1% of European firms, and in Germany the number in the sample is zero.

3.2. Goals of the firm

Tables 4.a and *4.b* show the results of analysis of goals of the firms (rank and average result of ranking). Respondents were asked to rank offered goals (1 = the most important goal, 8 = the least important goal), in short and long run (*Table 4.a*), and in economic recession and boom (*Table 4.b*).

Table 4.a. Short-term and long-term goals

	Great Britain				**Germany**				**EU**			
	Rank	Short -run	Rank	Long -run	Rank	Short -run	Rank	Long -run	Rank	Short -run	Rank	Long -run
Maximization of prospective profit	2	2.40	2	2.22	4	2.57	2	2.83	4	3.30	3	2.36
Maximization of sales revenues	5	4.00	6	4.56	6	3.57	7	4.67	6	4.67	6	4.40
Growth in company size and dominance	6	4.11	5	3.67	6	3.57	5	4.17	8	5.40	8	5.36
Target return on assets	3	2.89	4	3.13	2	2.29	3	3.50	3	2.50	4	2.82
Target market share	7	5.22	7	4.78	5	3.14	5	4.17	5	4.11	5	4.27
Keeping prices similar to those of competition	8	5.38	8	6.25	1	2.00	4	3.67	7	5.30	7	5.20
Table 4.a. Contd.												
Increase company value (share price)	4	3.00	3	2.33	3	2.43	1	2.67	2	2.27	2	2.17
Other	1	1.67	1	1.33	8	5.00	8	8.00	1	1.50	1	2.00

Taking into account that the answers under 'other' are not precisely defined, and that the respondents in British and EU samples don't accept any goal as the most important, we can rationalize that behaviour of firms in those samples indicate the emergence of goals not recognized as typical in the literature so far, representing no specific category. This means that there is an open area for future descriptive research, indicating what kind of goals some companies are pursuing.

It is obvious that German sample shows completely the opposite situation – the same category of goals, 'other', is at the last position when the importance of goals is concerned, what should logically mean that in German institutional environment there is no signs of existence of the same phenomena. In the sense, it can be assumed that between British and EU systems of corporate governance, from the one side, and German, from the other, there is a difference.

Further, comparing the other categories of goals, the results show that between British and EU systems there are similarities in the sense that between long-run and short-run ranking of goals there are very small differences, while in German sample this difference is more emphasized, but still asymmetrically distributed. In the same time, profit maximization is the most important goal in British system, both in short and long-run followed by increase of company value (share price) and targeted return on assets. In German system, keeping prices similar to the level of competition is the most important goal in a short-run, followed by targeted return on assets, and in the long-run these are increase of company value and maximization of prospective profit, respectively. In the European system the most important goal is increase of company value, both in short and long-run, followed by maximization of profit and targeted return on assets.

The results presented so far give reason to assume that differences between comparative systems are slight, giving no clear advantage to the neoclassical, nor to the managerial theories of the firm.

Table 4.b. Goals in recession and boom

	Great Britain				**Germany**				**EU**			
	Rank	Recession	Rank	Boom	Rank	Recession	Rank	Boom	Rank	Recession	Rank	Boom
Maximization of prospective profit	2	2.33	2	2.25	6	3.80	1	2.33	4	3.20	4	3.00
Maximization of sales revenues	3	3.13	4	3.25	7	4.00	4	3.40	6	5.00	6	4.44

Table 4.b. Contd.

Growth in company size and dominance	6	3.57	7	4.29	3	3.00	4	3.40	6	5.00	7	4.67
Target return on assets	5	3.29	5	3.71	2	2.57	7	3.67	2	2.33	3	2.00
Target market share	7	4.00	6	4.14	5	3.60	6	3.50	5	4.00	5	3.89
Keeping prices similar to those of competition	8	4.71	8	5.86	1	2.40	3	3.00	8	5.33	8	5.20
Increase company value (share price)	3	3.13	3	3.00	4	3.33	2	2.50	3	2.40	2	1.89
Other	1	1.50	1	1.50	8	8.00	8	8.00	1	1.00	1	1.00

When it comes to the ranking of goals in periods of recession and economic boom, the same difference is evident under category 'other' as in the previous case. Profit maximization is the most important in British system, in both recession and boom times, and in Germany only in economic boom. These results don't support the theory that in recession times firms are inclined toward profit maximization, as a survival condition, performing other goals in boom. Differences between goals of firms are more obvious in a German corporate system – in a recession priority is given to the keeping price levels similar to those of competition, while in boom, as we saw, it is profit maximization. There is one interesting similarity between the two systems – almost equal and relatively high ranking of share prices in both periods, indicating the similar importance of capital markets.

Table 5. Single most important goal

	Great Britain		Germany		EU	
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
Maximization of sales revenues of company value (share price)	4	36.4	1	14.3	3	21.4
Maximization of sales revenues	1	9.1	0	0.0	0	0.0
Profit maximization	2	18.2	0	0.0	2	14.2
Target rate of return on asset	0	0.0	0	0.0	3	21.3
Target market share	0	0.0	0	0.0	1	7.1
Other	1	9.1	1	14.3	2	14.2
Multiple goals	3	27.3	5	71.4	3	21.4
Total	**11**	**100.0 %**	**7**	**100.0 %**	**14**	**100.0 %**

Further examination of a single importance of each goal (particularly profit maximization and share price) led to results shown in the *Table 5*. There is extreme similarity between British and European systems, where the increase in share price is recognized as a single most important goal (multiple goals having the same importance in European case, 21.4%), next to it are multiple goals, while in German system no single goal is of overriding importance (71.4% of companies assigned the same importance to multiple goals, simultaneously). These results are in a significant accordance with results in *Tables 4.a* and *4.b*, confirming the validity of neoclassical theory of the firm, but still in favour of managerial theories, contrary to the results of Shipley's research on British economy (1981 and 1983) and Hornby's on Scotland economy (1995).

As Hornby (1995) states, for the firm to be categorised as one maximising profit two criteria have to be met - (1) profit maximization should be on the top and (2) profit maximization should be a single most important goal. This survey has revealed no such a conditions in either of comparative corporate systems, showing they are similar in terms of managerial theories of the firm.

There is permanent discussion in a literature whether firms aim at maximizing or satisfying profits. *Tables 6 (a, b, c)* shows goals for each sample. While in a British sample 64% of firms claim their goal is profit maximization, in Germany and Europe satisfying profit (57% and 64%, respectively) is prevailing. The results support the argument that in a British corporate governance system ('outsider' system) profit maximization is of overriding importance, while in German system ('insider' system) firms are more inclined toward satisfying profits. Further, EU harmonizing system shows traits of 'insider' corporate system, similar to German one.

The results are similar to those of Hornby's research (1995, p. 37) on Scotland firms (51.9% being profit maximizing) and Shipley's on British firms (where 52.3% are profit maximizing).

Regarding theories of the firm, it means that for the 'outsider' corporate system more relevant are those theories which assume profit maximization, while for the 'insider' corporate system more relevant are theories assuming satisfying profit. But still, differences are not so obvious to eliminate other theories as irrelevant.

Table 6.a. Maximizing profit and company size – Great Britain

Profit	Size										Total	
	< 50		51-200		201-1000		1001-5000		> 5000			
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Maximizing	-	-	-	-	1	100	-		6	60	7	64
Satisfying	-	-	-	-	-		-		4	40	4	36
Total	-	-	-	-	1	100	-		10	100	11	100

Table 6.b. Maximizing profit and company size – Germany

Profit	Size										Total	
	<50		51-200		201-1000		1001-5000		>5000			
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Maximizing	-	-	-	-	-	-	1		2	43	3	43
Satisfying	-	-	-	-	-	-	1		3	57	4	57
Total	-	-	-	-	-	-	2		5	100	7	100

Table 6.c. Maximizing profit and company size – Europe

Profit	Size										Total	
	< 50		51-200		201-1000		1001-5000		> 5000			
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Maximizing	-	-	-	-	1	100	-	-	4	33	5	36
Satisfying	-	-	-	-	-		1	100	8	67	9	64
Total	-	-	-	-	1	100	1	100	12	100	14	100

Regarding relation stated in hypothesis 1 (*H1*), statistical test for each sample (*Pearson x^2* coefficient calculated: *p = 0.995; p = 0.900 and p = 0.995,* respectively) shows that there is no significant negative relation between company size and profit maximization, i.e. there is no evidence that profit is considerably less important as firm grows. This result contradicts to managerial theories of the firm, which state that profit maximization is less important as firm grows. Thus results are in line with the results of Hornby's research.

In order to test more explicitly the relation between ownership and control, from the one side, and profit maximization, from the other, in hypothesis 2 (*H2*) it is supposed that owner

controlled firms are more inclined toward profit maximization than managerial firms. Data for testing this relation are shown in *Tables 7 (a, b, c)*.

Since there is no consent in the literature on the definitions of owner and management controlled firms, and to enable a comparison of results, in this survey we use classification Hornby used in his research – a firm is regarded as managerially controlled if there is no single shareholder, or group of shareholders, who controls more than 20% of shares.

Table 7.a. Maximizing profit and ownership and control of most successful companies – Great Britain

	0-5		6-10		11-20		21-50		> 50		Unknown		Total	
Goal	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Max. profit	4	44	-		-		-		-		-		4	36
No single goal	1	12	-		-		-		-		-		1	9
Other	4	44	-		-		1	100	-		1	100	6	55
Total	9	100	-		-		1	100	-		1	100	11	100

Table 7.b. Maximizing profit and ownership and control of most successful companies – Germany

	0-5		6-10		11-20		21-50		> 50		Unknown		Total	
Goal	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Max. profit	1	20	-		-		-		-		-		1	14
No single goal	3	60	2	100	-		-		-		-		5	72
Other	1	20	-		-		-		-		-		1	14
Total	5	100	2	100	-		-		-		-		7	100

Table 7.c. Maximizing profit and ownership and control of most successful companies – Europe

	0-5		6-10		11-20		21-50		>50		Unknown		Total	
Goal	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Max. profit	2	17	-		-		-		1	100	-		3	21
No single goal	2	17	-		-		-		-		-		2	14
Other	8	66	1	100	-		-		-		-		9	65
Total	12	100	1	100	-		-		1	100	-		14	100

Results of the survey show that firms in each sample are very close to or completely belong to managerial type of control i.e. no single shareholder, or group of shareholders, controls more than 20% of company shares. This is different from the Hornby's results on Scotland firms, where 57,1% firms are under management control and 42.9% firms are owner controlled. As Hornby cites, Gammie showed, using definition given by Radice and Kamerschen, on the sample of 30 Scotish companies, that share of owner controlled companies is significantly over 50%. In addition, Hornby cited that the percentage of owner controlled firms in Britain is lower than in Scotland. The same is confirmed by the results of this survey, too.

Statistical test of th relation between owner controlled firms and profit maximization in each sample has not confirmed that owner controlled firms are more inclined toward profit maximization (*p = 0.995,* for each sample), which is quite logical in this survey, as managerially controlled firms are dominating. Further, within managerially controlled firms in each sample it is perpetually confirmed that profit maximization is not given a priority. Although these relations exist, the results are not statistically significant. Hornby came to the similar statistically insignificant results.

Hypothesis 3 (*H3*) concerns the relation between the type of control, on the one hand, and minimum profit constraint, on the other, meaning that it is more probable that managerially controlled firms operates under minimum profit constraint than owner controlled firms.

Results within each group are shown separately in *Tables 8.a., b.* and *c*.

Table 8.a. Ownership and control and minimum profit constraint – Great Britain

Minimum profit constraint	0-5		6-10		11-20		21-50		> 50		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Exists	5	45	-		-		-		-		1	100	6	55
Not exists	4	55	-		-		1	100	-		-		5	45
Total	9	100	-		-		1	100	-		1	100	11	100

Table 8.b. Ownership and control and minimum profit constraint – Germany

Minimum profit constraint	0-5		6-10		11-20		21-50		> 50		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Exists	2	40	1	50	-		-		-		-		3	43
Not exists	3	60	1	50	-		-		-		-		4	57
Total	5	100	2	100	-		-		-		-		7	100

Table 8.c. Ownership and control and minimum profit constraint – Europe

Minimum profit constraint	0-5		6-10		11-20		21-50		>50		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Exists	4	64	1	100	-		-		1	100	-	-	6	43
Not exists	7	36	-		-		-		-	-	1	100	8	57
Total	11	100	1	100	-		-		1	100	1	100	14	100

Since managerially controlled firms are dominating in each group, it makes sense to follow the stated relation only in its relation to managerially controlled firms. Despite there is no clear inclination of these firms toward minimum profit constraint, results show that there is neither statistically significant relation (*p = 0.995*, for each group) between managerially controlled firms and minimum profit constraints, too. Hornby's results show that owner controlled firms are more in line with minimum profit constraint than managerially controlled firms. Results of this survey are open to that possibility.

Finally, the aim of this survey has been to test three relations (given in related hypotheses *H4a*, *H4b* and *H4c*). First, that majority of firms ought not to take into account market

Company size
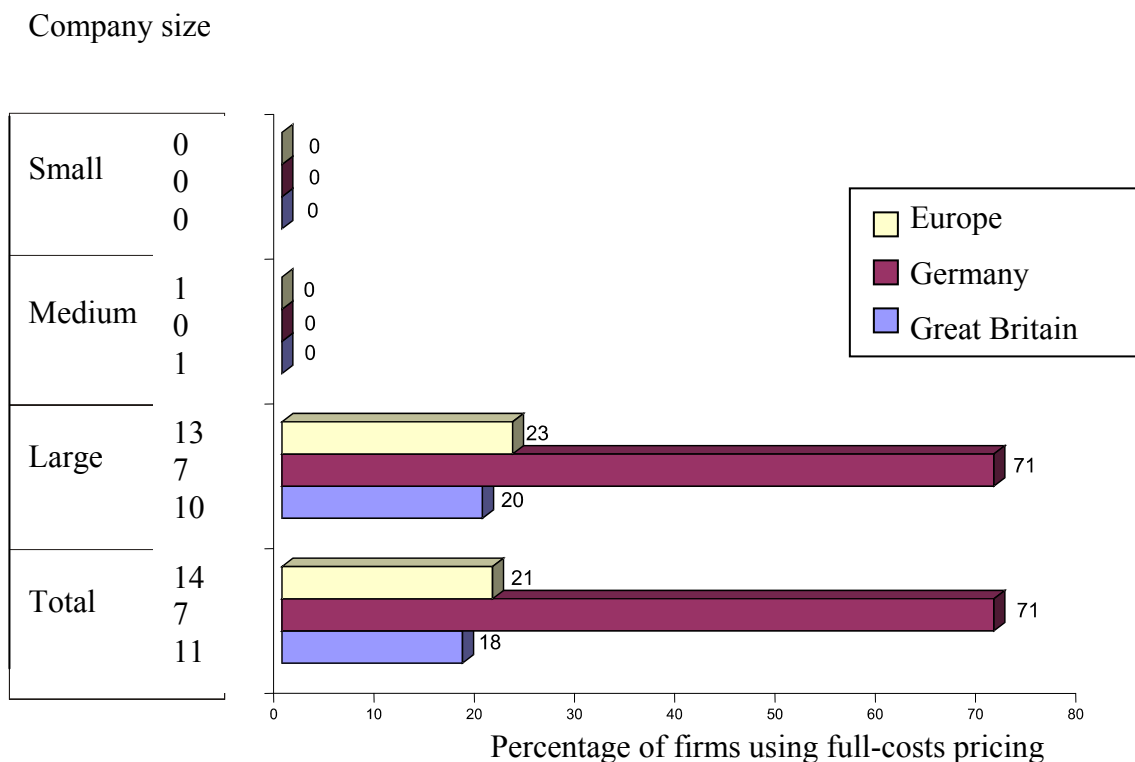
Figure 1. Relation between firms' size and full costs pricing

conditions, i.e. to determine prices on the basis of full costs. Second, in case of small firms, it is supposed that they mostly use less sophisticated pricing techniques ('cost-plus'), in a great degree ignoring demand factors. And thirdly, when it comes to the monopolistic firms, it is supposed that they significantly ignore demand factors and use 'cost-plus' pricing formula.

The data collected by this research didn't make it possible to statistically test above stated relations, the results are presented graphically in *Figures 1*. and *2*., for each group. According to size, firms are classified in three groups – small (less than 50 employees), medium (from 51 to1000 employees) and large (more than 1000 employees). The degree of competition has taken into account a number of competing firms in a basic industry – monopoly (no competing firms), oligopoly (from 1 to 4 competing firms), not competitive (from 5 to 25 firms) and competitive (more than 25 competitive firms).

When talking about percentage of firms that use full cost pricing (*Figure 1*.), it can be observed that in Great Britain that percentage is 18-20%, in large firms and in total number,

leading to the conclusion that other firms in the sample take into account market conditions, contrary to the relation supposed in hypothesis *H4a*. In a German sample there is evidence of supposed relation (71% of firms use method of full cost pricing). Similar behaviour show firms in the European sample, but in a slightly lesser degree, as do British firms (21-23% of firms don't use full costs method). In other words, this sample shows no supposed relation, too.

Degree of competition
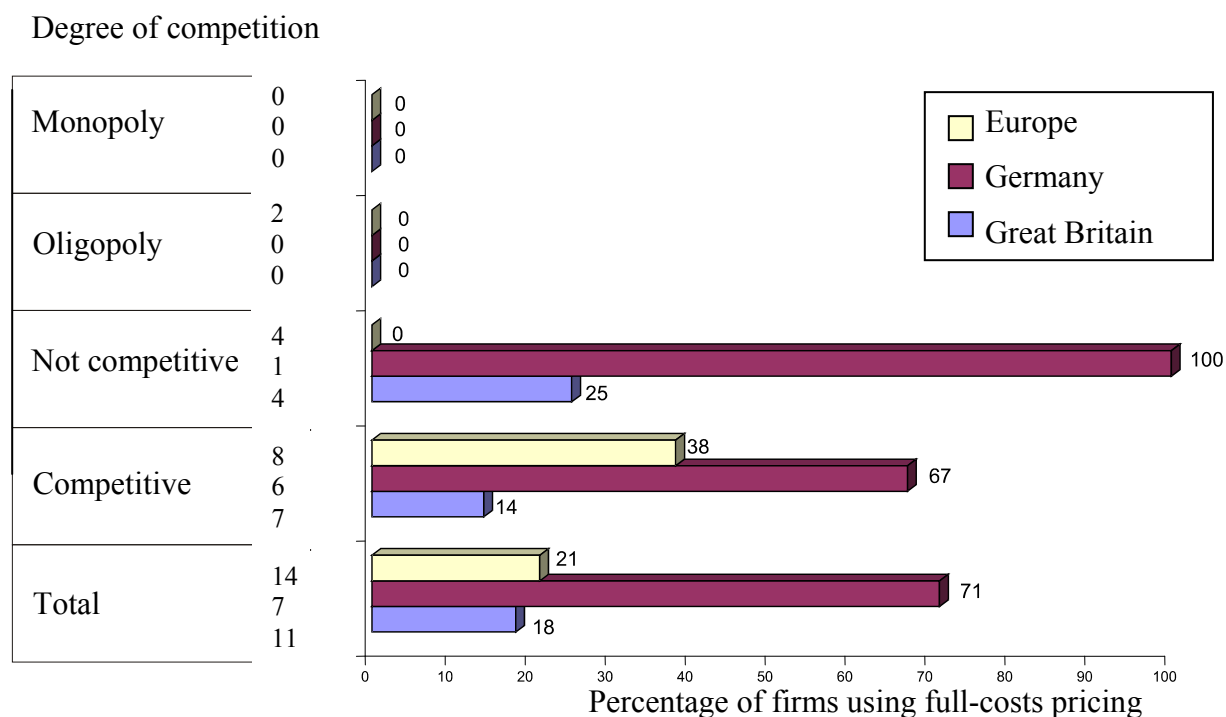
Figure 2. Relation between degree of competition and full costs pricing

Relations stated in hypotheses *H4b* and *H4c* were not possible to test on the basis of collected data in samples, since there were no small firms, neither monopoly. But still, as it is presented in a *Figure 2.*, it can be observed that full costs pricing is less in use by British firms (18%, 14% and 25%, by total number of firms, competitive and uncompetitive conditions, respectively) and European firms (21% of total number of firms and 38% of firms in competitive conditions, 0 being for uncompetitive conditions).

4. TESTING HYPOTHESES

Hypotheses are defined as null hypotheses, since the aim of the work is to test various theories of the firm from the perspective of differences in firm behavior (goals of the firms) in comparative corporate governance systems. Within each sample hypotheses are relational, which is presented in a previous section where goals of the firm are discussed

Data for testing hypotheses *1*, *2* and *3* are given respectively in *Tables 6 (a, b, c)*, *7 (a, b, c)* and *8 (a, b, c)*, under previous heading of the work; for statistical calculation of variance, ANOVA, *F-ratio,* see Kuljak (2005, appendices). If probabilities are less or equal to *p = 0,05*,

that means that between surveyed groups exist considerable differences in behavior. Variances for hypotheses *H4a, H4b* and *H4c* were not possible to calculate on the basis of existing data, so the conclusions concerning these hypotheses are based on graphical presentation of results in *Figures 1* and *2*.

Hypothesis 1 is formulated as follows:

H1: Between comparative systems of corporate governance there is no difference in terms of goals of firms – profit maximization and size of firm are in negative relation. In other words, as firm grows in size it could be expected higher degree of separation between ownership and control, and inclination of managers to prefer more satisfying than maximizing behavior.

Statistical test found that there is no significant difference (*p = 0.524*), between surveyed groups, in terms of negative relation between profit maximization and size of firms, i.e. from *Tables 6* (*a, b, c*) it can be seen that satisfactory behavior is significantly important with firm size. Hypothesis 1 has not been refuted.

Hypothesis 2 defines behaviour of firms in following terms:

H2: Between comparative systems of corporate governance there is no difference in terms of goals of firms – firms that are owner controlled are more inclined toward profit maximization than managerially controlled firms.

Variance analysis showed the probability *p = 0.919*, meaning that there is no significant difference in firm behavior between surveyed samples, i.e. it is not confirmed that owner controlled firms are more inclined toward profit maximization, in each sample. Hypothesis 2 has not been refuted.

Hypothesis 3 defines behavior of firms as follows:

H3: Between comparative systems of corporate governance there is no difference in terms of goals of firms – it is more probable that minimum profit constraint is respected by managerially controlled than owner controlled firms.

Statistical test showed that there is no significant difference (*p = 0.726*) in firms behavior between surveyed groups, i.e. minimum profit constraint is more in use in managerially controlled firms. Hypothesis 3 has not been refuted.

In related hypotheses *H4a, H4b* and *H4c*, following relations are defined:

H4a: Between comparative systems of corporate governance there is no difference in terms of pricing – majority of firms pursue full cost pricing.

H4b: Between comparative systems of corporate governance there is no difference in terms of pricing techniques small firms pursue – small firms use less sophisticated pricing techniques.

H4c: Between comparative systems of corporate governance there is no difference in terms of pricing policy pursued by monopolies – monopolies tend more to use 'cost-plus' pricing formula, significantly ignoring demand factors.

Since collected data didn't make possible to perform variance analysis, *Figure 1* enable to see that relation stated in hypothesis *H4a* is considerably present in German sample, while it is not the case in British and European samples. Relation stated in hypotheses *H4b* and *H4c* were not possible to see from existing data, as *Figures 1* and *2* show. Therefore, hypotheses *H4 (a, b, c)* were not possible to test, though there are some indications that *H4a* could be refuted, i.e. that between surveyed groups could exist significant differences.

5. CONCLUSION

Results of the empirical survey show the following:

Ad H1: Between comparative systems of corporate governance there is no difference in terms of goals of firms – profit maximisation and size of firms are in negative relation, i.e. managers don't significantly prefer profit maximisation with firm size.

Ad H2: Between comparative systems of corporate governance there is no difference in terms of goals of firms – managerially controlled firms are less inclined toward profit maximization.

Ad H3: Between comparative systems of corporate governance there is no difference in terms of goals of managerially controlled firms – minimum profit constraint is more in use in managerially controlled firms.

Ad H4a, H4b and *H4c:* On the basis of collected data it was not possible to make statistical test of these hypotheses; but, as to the relation *H4a* it is evident from the graphic presentation that German firms considerably pursue full costs pricing, while it was not the case in Great Britain and Europe.

In sum, the survey showed that there were no significant differences between firm behaviour in comparative systems of corporate governance of Great Britain, Germany and Europe Union, supporting the arguments of managerial and behavioural theories of the firm.

Further, it appeared that managers were not extremely inclined toward profit maximisation, what additionally supports managerial and behavioural theories of the firm.

However, it should be kept in mind that large and managerially controlled firms dominate in the samples (as representative for contemporary corporate systems), and that the survey introduced constraints for the firm to be recognized as profit maximizing, they should simultaneously match two criteria – (1) profit maximisation to be its first priority, and (2) profit maximisation to be its single most important goal.

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AN INSIGHT INTO PERSONAL VALUES
OF CONTEMPORARY AND FUTURE MANAGERS

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1. INTRODUCTION

"It's not hard to make decisions when you know what your values are."
(Roy Disney, Film writer, Producer)

Values are strategic lessons which are learned through the course of life and tend to be maintained and remain stable over time. The term "lessons" refers to the realization that one way of acting is better than its opposite in order to achieve the desired outcome. Throughout history values have sparkled interest of many researchers in various sciences. With staggering growth of companies, management researchers became interested in this topic as well. They came to realization that values have a profound effect on people's performance. Therefore, they started researching values and similar topics of high ranking people in enterprises, namely top managers. Over the last decade, a substantial number of surveys regarding values in society were carried out. However, studying values in the business context in Slovenia has been severely neglected. This study fills the gap by providing empirical findings. The priority in this paper is therefore given to the presentation of empirical results.

The purpose of this paper is to shed light on values and to provide results of an empirical study on values. We identify the contemporary personal values among currently leading managers of enterprises in Slovenia and students majoring in management with a goal to become managers some time in the future. Based on the review of the literature which shows the influence of values on managerial behavior and subsequently its impact on the success of enterprises the results of an empirical study carried out in Slovenia are presented. Personal values are evaluated on two samples: 1) on a sample of managers in the top positions in Slovenia's large and medium-sized enterprises as well as 2) on a sample of students. The paper contributes to the realization of the values that are typical of Slovene managers and their younger potential counterparts.

The structure of the paper follows its purpose. In the second chapter a definition of the main concepts is be provided, followed by the presentation of some conclusions of the studies on values in management. In the third chapter research problem and research questions are presented and subsequently the methodological part of the research is explained. In the fourth part of the paper, the characteristics of the two study samples are presented, followed by the presentation of the most important and least important values. Finally, differences between contemporary and potential future managers are assessed.

2. LITERATURE REVIEW

Managers are expected to accomplish the goals of enterprises which are set by owners. They create the conditions and environment that enables enterprises to survive. A crucial aspect of managing is recognizing the role and importance of others. Managers are well aware of the fact that the only way for results to be delivered and goals accomplished is with the help of people, employees of the company. They carry out organizational goals in an effective and efficient manner through four management functions (Daft, Marcic, 2004). In the process of planning, they select goals and discuss and decide upon ways to attain them. The second phase is organizing, where the tasks to be accomplished are distributed among employees. Responsibility for task accomplishment is assigned to each employee. In the third (crucial) phase of leading, manager must use influence and other sources of power so that employees start performing tasks. Managers or leaders must sparkle desire for accomplishment in employees and most importantly, they must guide an employee's motivation in direction of reaching the goal. It is important that they control for the intensity and direction of the employee's motivation (Lipičnik, 2004). Within the last function of the management process, i.e. controlling, manager must monitor activities and make corrections. Feed-forward instead of feedback control is called for in this last phase.

Values can be distinguished by different levels at which they operate. When people start working in an enterprise, they operate according to their personal values. These values play a crucial role in private life as well and guide the individual's behavior in different situations. Values are formed from past experience and interaction with others. However, personal values are also influenced by cultural values, i.e. the dominant beliefs common for a collective society (McShane, von Glinow, 2003).

Alas (et al, 2006) believes that if people believe in a company's purpose, they will change their individual behavior to serve that purpose. If they do not, they most probably suffer from cognitive dissonance. However, as values are a fixed concept and do not change rapidly, it is believed that employees who's values are not aligned with the company's values, will leave that particular company on their own, rather than assimilate in the sense of values. Terry Broderick, former president and CEO of Royal & SunAlliance USA, also believes that corporations need to be straightforward about what their values are and that potential employees have to adhere to them. If they however choose not to, they are not the right candidates for that particular company (Henle, 2006).

Values are acquired, not learned, through the processes of socialisation, that is in interaction with family and friends and also in organizations people either work in or belong to (Alas et al, 2006). Values which are internalized are assumed to be fairly fixed over time. A value system an individual has developed presents what is hoped for and expected, what is

forbidden and what required. Values are seen as a list of criteria by which behaviour is judged and consequences called upon (Oyserman, 2001). Human values are defined as characteristics of individuals that vary in importance and serve as guiding principles in the life of a person or a group (Kluckhohn, 1951). As "beliefs about desirable end states or behaviours that transcend specific situations, guide selection or evaluation of behaviour and events, and are ordered by relative importance", values are believed to play a crucial role in a manager's decision process. (Schwartz, Bilsky, 1987). Schwartz and Bilsky combined the views of various theorists to incorporate into the definition the five formal features of values most often written about. Therefore, values are concepts or beliefs, which pertain to desirable end states or behaviors, transcend specific situations, guide one's selection and evaluation of behavior and events, and are ordered by relative importance (Schwartz, 1992).

2.1. Values research among university students

Examining values of students in management is particularly interesting as their values give the information about behavior in school as well as serve as a possible predictor of behavior in the workplace after finishing their studies. Depending on values, some speculations can be made as to how a school can shape its programmes and courses so that consequently students will be keen on learning and motivated for individual as well as teamwork.

Student values have become of interest to various researchers particularly in the recent years. Aygun and Imamoglu (2002) for example studied values of students from different departments of one university and compared them to the values of adults. International comparisons of values of the same generation of students are also of interest among researchers, even though the number of existing studies is low. Rickman and Houston (2003) studied students' values in USA and United Kingdom and found some differences. Students in USA assigned greater importance to values of achievement, hedonism, self-direction, and stimulation in comparison with British students. Gender differences also appeared. Women from both countries assigned greater value priorities to values of benevolence, universalism, security, and subordination of self to others. They tend to be more collectivist oriented. Women and men did not differ on the more individualistic values, and, in fact, women placed greater importance on achievement than men did.

The exploratory study of values among students from Estonia and Finnland showed that students have different value priorities which in authors' view is due to different stages of institutional development the states are in. the study examines the dynamics of values in order to work out proposals for influencing the values of business students during their vocational adaptation stage at university (Alas et al, 2006). When compared to Estonians, the analysis showed that to Finns ethical, cultural and leadership values are more important. Nevertheless, they put less importance to personal and business values. At the time of the second study (in 2005), ten years after the first study, Estonian and Finnish students were much closer in what they valued.

Myyry and Halkema (2001) studied values of 138 students of three universities in Finland. They compared business, social science and technology students. The analysis showed that business students stood out on achievement values whereas social science students on universalism, benevolence and spirituality. Technology students most valued security. To business students, both male and female and male technology students power was, as expected, very important. However, technology females and social science females and males scored low on this value. It was expected that business students would show greater gender

differences than other groups for values of achievement and work. It turns out that this hypothesis is only true for the latter value.

Contrary to the above, a study of 139 graduates with different fields of study (i.e. business, art, social work and political science, divinity and chemistry of physics) carried out in the USA did not show major differences in value based on different study programmes (Kopelman, 2004). It has to be pointed out that in this research respondents (mainly Deans) gave their opinion as to what values possess master's students. They did not evaluate their own values however they did assess the values of another group through their own lenses and based on their own perception of the environment. The reason for relatively homogeneous answers in our view lies in the fact that the median age of the respondents was 54 years, which leads to the belief that value systems through the course of life tend to be shaped by gained experience and wisdom. It is however logical that undergraduate students, who are much younger are still in the process of consolidating their values.

The content of this paper focuses on students majoring in management. It is namely particularly interesting to find out what is that these students, which as a group are probably relatively homogeneous, value. In needs to be pointed out that even though values are a stable category it is to be expected that values of students will to certain extent differ from values of managers. The reasons for existing differences are to be found in factors such as age, knowledge, experience, wisdom, different environmental influences, possible changes in culture, etc.

This paper, however, tries to make a link between generations and compares values of managers on one hand and students with aspirations of becoming managers. Since similar studies have not been carried out in Slovenia (as there are also no articles in the available databases) comparisons are not possible. Therefore this is an exploratory study.

2.2. Values research in business

Whereas values were once considered by managers as being too soft to be included in the company's philosophy, they have now become a central part of organizational strategy (Dolan et al, 2006). More and more companies are putting in place a framework that they are a values-based organization. Top managers are becoming interested in examination of their own values as well as the identification of company's values. Managing therefore is about the processes, credibility and about a set of values that the managers hold everybody in the company accountable for. The manager of Citygroup, one of the largest public companies in the world, believes that values is going to be a key focus going forward and that he is going to devote more time to talking about values (Henle, 2006).

England (1967) argues that it is of crucial importance to study managers' values for the various reasons. Values affect managers' perception of situations they find themselves in and the way they define problems. Values influence managers' decision-making process and the solutions to the problems. Next, values have a significant effect on how managers perceive other individuals and groups of people they work with. Therefore, we can say that they impact the process of building and sustaining interpersonal relationships. From the point of view of an enterprise, values influence managers' perception of individual and organizational success. Consequently, values also play an important role in the process of achieving the selected goals and the methods chosen to fulfill them. It needs to be stressed that values are crucial also in determining what is and what is not considered to be ethical behavior. Values are seen

as the foundation of ethical behavior. Finally, personal values also affect the extent to which a manager will accept or withstand pressures and different goals within the enterprise.

Empirical studies have confirmed the connection between managers' values and success (Conner, Becker, 1975). More successful managers value dynamism and constant activity, whereas less successful managers express passive and static values (Hodgetts, 1994). The connection between values and the process of decision-making has been shown by Ryan, Watson, Williams (1981) and Conner, Becker (1975). We believe that values of top managers not only influence their own behavior and decision-making, they also have a strong impact on the behaving principles of their subordinates. By signalling their own values, managers play a vital part in shaping the organizational culture.

Managers of enterprises which are vitally important for any society are individuals whose values are of particular interest. Personal value systems are said to be a very important factor in understanding managerial behaviour (England, 1967). Sarros and Santora (2001) stress that personal values influence managerial actions and subsequently strongly impact the overall success of the company.

Rokeach and Ball-Rokeach (1989) argue that it is of extreme value to compare value systems between individuals, as well as groups and society. England (1967) has come to a conclusion that there is a general value pattern which is characteristic of American managers however there is a great deal of variation in value systems from one individual to another. England asserts that personal values operate at the level of corporate strategy and also at the level of day-to-day work. Personal value systems are said to influence the organization in direct as well as indirect manner. This process however works in both ways implying that personal value systems are influenced by organization life.

3. FRAME OF THE RESEARCH

In order to provide answers to questions concerning the values that managers and students possess, an empirical approach to the problem was needed. Due to lack of studies in the field of management information about managers' values in Slovenia is scarce and for this reason we want to fill this gap. The empirical research presented in this paper forms a part of a larger study. The aim of the paper is to highlight the importance of studying values. We examine personal values among top managers in large and medium-sized companies and university students in Slovenia. The main therefore research question refers to identification of values of Slovene managers and of business students. The reason behind choosing personal values is the fact that these values represent the foundation for understanding an individual's behavior. Also, the information on values of a population as specific as the one of business students is scarce. Second research question thus concerns the perceived differences between managers and students. Thereby, some information as to how homogeneous or heterogeneous both populations are will be provided. In the paper, we test the null hypothesis which says that there are no mean differences among the two studied groups.

The research approach in the empirical part is quantitative in its nature. The decision for such approach is founded on several reasons. Firstly, this study is primarily explorative and it seeks basic characteristics of managers' and students' values which can be measured in a questionnaire and subsequently analyzed statistically. Secondly, due to its characteristics, one

of the samples chosen is quite specific as far as empirical studying is concerned. Namely, managers rarely decide to participate in research and the response rate is extremely low in questionnaires sent by post let alone in structured interviews. Data were gathered by means of a questionnaire. Last but not least, the majority of academics researching this field tend to choose quantitative approach, which can, with the use of an identical instrument, ease comparisons. Qualitative approach on the other hand has its advantages. It gives the researcher a broader and deeper insight into values therefore it would be extremely useful to somehow manage to combine both methods.

3.1 Sampling and collection of data

The two samples together include 248 respondents. The decision for the samples is in accordance with the purpose of the paper. In the first sample both large and medium-sized enterprises are included as only those managers that lead relatively large corporations were of interest to us. Besides that, people that are in charge of small companies, entrepreneurs, are in fact very different than managers of larger companies and have different ambitions, vision and strategic objective. Their personal characteristics therefore tend to be quite different than those of managers. We used stratified sampling as we wanted to explore the potential existence of differences in value priorities among enterprises of different size. Within the two strata, we randomly chose 230 large and 270 medium-sized enterprises. The size of firms in Slovenia is statutorily defined and is based on three criteria.[1] It was suspected that there would be more interest for participating in the research in medium-sized enterprises. In selecting the firms, Chambers of Commerce (2005) database was used. Distribution of questionnaires began in November 2005. They were sent by post. This was done with the aim of getting as many respondents as possible. By mid January managers from 130 Slovene enterprises satisfactorily completed the questionnaire. Some of the questionnaires were excluded from further analysis, because they were either not completely filled in or they exhibited zero variance (for example selecting only 6s, 5s or 4s for all items).

The response rate is 26% which is a typical rate for surveys in which the questionnaires are sent via ordinary mail. However, this was a surprisingly good response rate regarding the position the respondents hold. Namely, a staggering 65% of respondents are CEOs (a presentation of the characteristics of the sample follows in the next chapter) therefore we can assess the response rate as good.

The second sample comprises students of the Faculty of Economics at the University of Ljubljana. It was decided that only students, specializing in business would be included. At the same time, only those students who attended to the course on Leadership were included in the survey. Students filled in a questionnaire while attending a lecture. Altogether we got 118 responses, accounting to approximately 70% of the students enrolled in the course. Both, students and managers were given the same questionnaire with the aim of comparing their value systems. The research itself was carried out in the period from February to April 2006 on the premises of the faculty.

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[1] Small firms are those that meet at least two of the following three criteria: (a) average number of employees in the last year does not exceed 50; (b) sales in the last year do not exceed EUR 4.25 m; and (c) average assets in the last year do not exceed EUR 2.13 m. Medium-sized firms are those that are not small and meet at least two of the following three conditions: (a) average number of employees in the last year does not exceed 250; (b) sales in the last year do not exceed EUR 17 m; and (c) average assets in the last year do not exceed EUR 8.5 m. Firms that cannot be defined as small or medium-sized are large firms (Uradni list RS, 2001).

3.2 Measuring device

For the purpose of testing research hypothesis a questionnaire consisting of two parts was designed. With regard to demographic characteristics in the first part, respondents gave information about educational attainment, years of managerial experience, work experience and monthly payment. Characteristics of enterprises such as size, industry, capital structure, business success were also obtained. The second part of the questionnaire included a list of values regarding one's personal life. We used Musek Value Survey which consists of 55 items (i.e. values) which refer to different aspects of life. The value scale has been used in several studies in the last decade and has good psychometric characteristics. The value of Cronbach alpha coefficient for the scale is 0.95. We excluded some of the values from the original list as they are not of interest in our study of managers, and added new ones which were relevant to the study. The final list included 36 values from the original study and 20 newly added values, summing up to 56 values altogether. Examples of values we included are politeness, looking for a purpose in life, self-discipline, winning, risk-taking, sense for people. On the other hand, examples of excluded values concerned with private, intimate life are enjoying beauty, good sex life, good relation with partner, equality among nations.

Values in the questionnaire required that respondents rate the importance of a particular value in their life. Respondents were asked to choose between six answers (a six-point Likert scale was used), whereby the measurement scale varied from 1 (not important at all in my life) to 6 (extremely important in my life). Respondents were asked to state their own opinion about particular values so the view was, as in all value studies, subjective.

The null hypothesis assumes the equality of sample means, while the alternative hypothesis states that means are not equal. The hypothesis was tested using Independent Samples T-Test procedure in order to assess the differences between groups within the samples. When testing the hypothesis a significance level of $\alpha=0.05$ was taken into consideration.

4. RESULTS

4.1 Samples' characteristics

4.1.1. Managers' characteristics

There were 68% of males and 32% females participating in the study. Such proportion (i.e. a higher number of male respondents) was expected, since in Slovenia as well as in some other EU countries positions of the highest rank are generally occupied by men. The largest subgroup of respondents, or 38%, is aged between 40 and 49. Almost 60% of managers hold a university degree, which shows the importance of education in order to occupy the most responsible posts in the company. It is important to note the position held by the managers that decided to participate in the study. The majority of the respondents, a staggering 65%, were CEOs, almost 20% were members of the board, and 11% of respondents were managers of business units or sectors. This structure can be evaluated as very good. Usually highest ranked managers do not have time to fill questionnaires and tend to delegate this task to the lower levels of management. With this structure of the sample, we will be able to discuss the values of CEOs. 40% of managers had been occupying the present position for less than five years and altogether 505 between 5 and 15 years. Managers were asked to give an average

number of working hours per week. More than 60% of managers spent between 46 and 60 hours a week in the office.

As far as the characteristics of the enterprises are concerned, about 60% of the enterprises are large and the rest are medium-sized. This proportion can be evaluated as good, since it was expected that fewer large companies would participate due to lack of interest in qualitative studies. With regard to the industry, most enterprises perform in sales (i.e. 38%) and manufacturing (i.e. 36%). It stems from this, that the results can to some extent be generalized for the situation in Slovenia. Based on the ROE criteria, the results show that in 38% of the enterprises ROE falls between 0 and 5%, 25% of enterprises between 5% and 10%.

4.1.2. Students' characteristics

The sample of business students altogether comprises 118 respondents, of which approximately 30% are male and 70% are female. This ratio reflects the situation typical of business and social-science faculties. The majority of enrolled students are female, which is similar to data on enrollment in other EU countries. 35% of the students are 21 years old, 35% are 22 and 17% are 23 years of age. The remaining students' age ranges from 24 to 31. As the course on Leadership takes place in the third year of undergraduate studies, one would expect the majority of the students to be aged 21, however, the length of studies completion is usually longer due to extra curricular activities students have (the majority of their time is taken by working). Almost 70% of students have completed a 4-year high school (i.e. gimnasium), whereas the remaining 30% completed other secondary school programmes. 75% of students have aspirations to pursue graduate studies at some time in their future. Obviously, such a high percentage shows, that implementation of Bologna guidelines is suitable for the Faculty of economics as the demand is high. 40% of the students are currently working and studying. Nevertheless, a relatively high number, 60% of students, are at the point of the survey not working
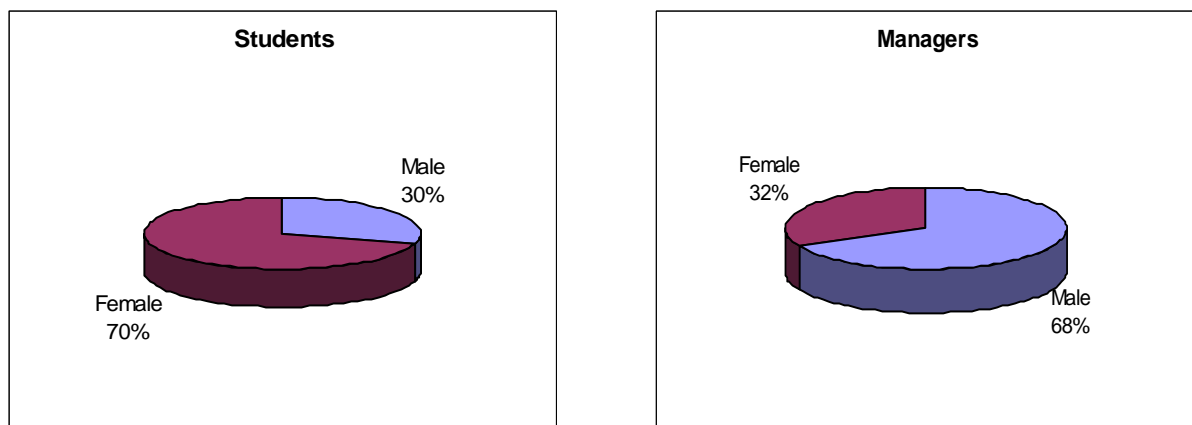
Source: Research data

Figure 1. Demographic characteristics of respondents

4.2 Presentation of results

4.2.1   Most important values for managers and students

Personal values have a strong influence on all walks of an individual's life. They strongly influence the way a person behaves not only in private life but also (and for this article even more important) at work. As Henle points out: "You have to have a set of values, and those values are personal. You cannot have one set of values in your personal life and another set in your business life. That just does not work" (Henle, 2006, p. 349).

Table 1 presents values with highest ranks for managers as one group as well as separately for males and females. Values are ranked according to descending means. Slovene managers perceive health as most important in their life. Managers obviously realize that there is a high probability of illnesses in this occupation, what has been proved by various studies. Second place is occupied by family happiness, which is rather surprising although it confirms past findings in Slovenia. It is difficult to maintain a balance between work and family life and managers have to make one of them, usually work, a priority. Slovene managers perceive work as extremely important, since the results show that the majority of managers spend between 45 and 60 hours a week at work.

Honesty is ranked as third most important value which is comparable to views of managers from other countries (for example Kouzes, Posner 2002). In order to be successful and to be able to lead people, a manager has demonstrate honesty. If honesty is characteristic of one's personality, then this person is honest in every aspect or field of life, be it family and friends or work and colleagues. This fact again points to the realization that Kouzes and Posner stress the importance of vision in life (both private and professional) and the Slovene example shows that vision is important. Specially, male managers believe that being visionary is crucial, therefore they give it the highest rank. As managers are perceived as people who do not want to be given orders, this explains why freedom is given substantial importance.

Table 1. Ten highest ranked values of Slovene managers

Rank	Group values	Mean	Male values	Mean	Female values	Mean
1	Health	5.15	Vision	5.22	Family happiness	5.21
2	Family happiness	5.12	Health	5.20	Knowing oneself	5.12
3	Honesty	5.09	Honesty	5.15	Health	5.05
4	Vision	5.06	Family happiness	5.07	Wisdom	5.00
5	Freedom	4.95	Freedom	5.02	Hope in the future	4.95
6	Wisdom	4.92	Continuous education	4.98	Honesty	4.93
7	Continuous education	4.92	Morality	4.94	Raising children	4.83
8	Knowing oneself	4.88	Wisdom	4.89	Fairness	4.83
9	Raising children	4.85	Professional success	4.88	Continuous education	4.81
10	Fairness	4.85	Raising children	4.86	Freedom	4.81

Source: Research data

As far as gender differences are concerned, as it stems from the table, there are four values by which managers differ substantially. Male managers put vision in the first place, whereas female managers do not perceive it as important. Vision for females is not among first ten values. Morality or ethical behavior in life in general as well as professional is a priority for male managers. Female managers on the other hand do not believe it is very important.

Another difference exists regarding success in occupation. It appears that women are not as interested in success in chosen profession as men are. Desire for professional success is expressed by men. It seems that men are in this regard more ambitious and are prepared to invest more time to achieve results at the workplace. Another value expressed more by women than by men is hope in the future. Women put this value in the fifth position, whereas men in the fifteenth position.

In their studies, American researchers documented that age, education, type of employment and socioeconomic status influence value preferences (Oyserman, 2001). It stems from this that value preferences within groups are relatively homogeneous. However, differences exist between groups of people having different demographic characteristics. The above research findings lead to the supposition that values of students will be somewhat different from values that are most important to managers. This would predominantly be due to age differences. Nevertheless, both groups could indeed show similarities as to what they value. The reason for such results could be, that students are influenced by the curriculum and contents learned in various courses. It is in those courses namely, that one learns the best practices, decision-making styles and even values typical of managers in Slovenia as well as abroad. The latter would imply that cultural differences influence values of managers in different countries.

Table 2 therefore shows what is valued in life by business students. The values shown below are valid only for business students and cannot be generalized without further investigation. We suppose that, as was previously shown by other studies (i.e. explained in the review of literature). For students the most important thing currently in their lives is friendship. This situation is typical for younger people. At the same time, another value with highest estimate is "knowing oneself". People in their early twenties tend to be in a period of self-searching in their life. They are at a point where important decisions are being made, particularly as far as their beginning of the career and identifying occupation that suits their capabilities, is concerned. Third place in values ranking is occupied by health. The importance of health for students is to a certain extent surprising as students usually do not talk of health and quite a few tend not to enjoy the fitness classes that are obligatory in the undergraduate studies. However some of them do engage in various types of physical activities in order to improve their stamina. In the fourth place among most important values is freedom. Freedom as one of the universal values is something younger people particularly strive for. The positioning of this particular value is therefore not surprising. Honesty and fairness also seem to be universal values as they are both highly recognized by students as well as managers. Social life is also very important for students, thus receiving relatively high estimates. This value is also closely connected with having good friends and constantly investing in and thus nurturing the relationships.

Table 2. Ten highest ranked values of Slovene students

Rank	Group values	Mean	Male values	Mean	Female values	Mean
1	Good friends	5.31	Knowing oneself	5.16	Good friends	5.38
2	Knowing oneself	5.31	Good friends	5.16	Knowing oneself	5.37
3	Health	5.19	Social life	5.14	Health	5.30
4	Freedom	5.08	Continuous education	4.97	Freedom	5.14
5	Loyalty	4.95	Freedom	4.95	Family happiness	5.09
6	Family happiness	4.92	Health	4.95	Free time	5.00
7	Honesty	4.92	Honesty	4.86	Loyalty	4.99
8	Social life	4.91	Loyalty	4.86	Honesty	4.95
9	Fairness	4.81	Morality	4.78	Professional success	4.88
10	Continuous education	4.81	Fairness	4.76	Fairness	4.84

Source: Research data

As far as gender differences in the students group are concerned it can be said, that social life is more important to male students. Perhaps this can be due to their greater engagement in networking and thereby gaining the much needed social capital. Continuous education is also perceived as more important to male students, as well as morality. Perhaps male students have engaged more in the process of life-long learning in order to maintain their competitiveness by improving their competences. Female students on the other hand value higher the happiness in family. Contrary to this value, important for personal life, women also put emphasis on professional life and success. More information regarding gender differences among business students is provided in one of the following subchapters.

4.2.2 Least important values for managers and students

The question, that still needs to be answered, is connected with the least important values among all given values. Table 3 presents values of managers. The lowest ranked value is political success. It was expected that managers would not rate it as important. Slovenia is currently in a period where society at large does not have respect for and confidence in politics (Rus, Toš, 2005). In the present study, where managers expressed their opinions about value, they frequently said that politics and politicians should not interfere with the business practice. They speak in favor of privatization of state-owned companies. The interesting result is the low importance managers assign to fame, admiration, and exceeding others. Managers are considered to be people who are motivated by achievements, who have a desire to exceed others, to climb the hierarchical level and compete with others. The results presented here seem to be the contrary.

Another thing worth consideration is individuality. Researches around Europe (European Value Survey) have shown, that today, when everyone is talking about importance of team work, people are actually becoming more and more individualistically oriented (Nordström, Ridderstråle, 2001, 2003). They have no trust in others, only in themselves. Slovenia similarly shows this pattern in the last decade. Slovenes are people who mainly rely on themselves. They are among the least trusting nationalities in EU (Malnar, Svetlik, 2004).

Table 3. Ten lowest ranked values of Slovene managers

Rank	Group values	Mean	Male values	Mean	Female values	Mean
47	Comfortable life	3.87	Patriotism	3.83	Authority	3.79
48	Modesty	3.80	Social life	3.81	Eminence in society	3.71
49	Patriotism	3.78	Enjoying art	3.80	Patriotism	3.67
50	Good food and drink	3.75	Comfortable life	3.73	Exceeding others	3.67
51	Equality	3.75	Equality	3.73	Risk-taking	3.64
52	Social life	3.68	Good food and drink	3.70	Modesty	3.60
53	Exceeding others	3.64	Exceeding others	3.63	Individuality	3.50
54	Individuality	3.38	Individuality	3.32	Social life	3.40
55	Fame and admiration	2.54	Fame and admiration	2.69	Fame and admiration	2.21
56	Political success	2.25	Political success	2.26	Political success	2.21

Source: Research data

From observing the data, it can be concluded that there are few differences between male and female managers. Men put less emphasis to art and culture and other hedonistic areas of life.

Women seem to be more risk-averse as they assign much less importance to authority, and eminence in society. They also perceive modesty as less important than do men.

As far as students are concerned, the lowest ranked values tend to be somewhat different from the managers' values. The values are presented in Table 4. The lowest ranked value is political success. This particular value was least important for managers as well. Students at this point in their life are absolutely not interested in politics. Many of them do not regularly follow the political situation in Slovenia and abroad. Fame and admiration is also of least importance to them, this being slightly in contrast with higher valuing of social life and friends. Love towards the state is also not important for students however it is much more important for managers. Hard work, order and discipline are values in which managers and students differ as well. As far as gender differences are concerned eminence in society and modesty are less important to men, whereas women put less importance to modesty, discipline and winning.

Table 4. Ten lowest ranked values of Slovene students

Rank	Group values	Mean	Male values	Mean	Female values	Mean
47	Good food and drink	3,86	Hard work	3.76	Risk-taking	3.89
48	Risk-taking	3,85	Risk-taking	3.76	Winning	3.88
49	Modesty	3,81	Eminence in society	3.73	Modesty	3.80
50	Order and discipline	3,65	Exceeding others	3.65	Order and discipline	3.60
51	Exceeding others	3,55	Individuality	3.62	Exceeding others	3.51
52	Hard work	3,49	Good food and drink	3.59	Love towards the state	3.38
53	Love towards the state	3,41	Love towards the state	3.46	Hard work	3.37
54	Enjoying art	3,27	Enjoying art	3.16	Enjoying art	3.32
55	Fame and admiration	2,75	Political success	2.57	Fame and admiration	2.85
56	Political success	2,62	Fame and admiration	2.51	Political success	2.64

Source: Research data

4.2.3. Assessment of differences within samples

The literature is still not united as to whether gender differences exist or not. Some empirical studies have come to conclusion that there are no differences, whereas other state that differences do exist (Prince-Gibson, Schwartz, 1998). Schwartz for example found that there were differences in all 47 national samples in his wide value project. According to his results men have higher priority for power and achievement values in comparison with, women whereas women perceive benevolence as more important than men.

Gender differences between male and female managers, as seen in Figure 2 are significant in seven cases. In other words, it can be concluded that male and female managers have relatively similar general values. Women perceive as more important values knowing oneself (p=.028), and enjoying art (p=.006), whereas men put more emphasis on authority (p=.002), success in profession (p=.009), eminence in society (p=.035), fame and reputation (p=.029). Men are also risk-takers (p=.008).
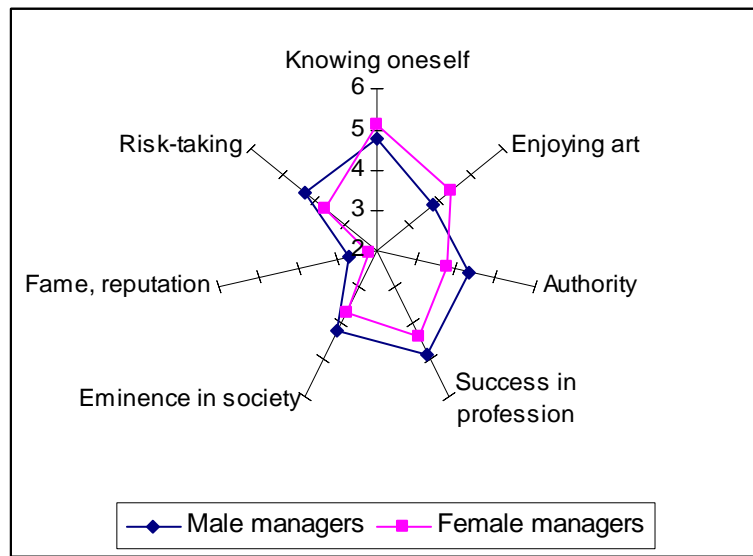
Source: Research data

Figure 2. Assessment of gender differences among managers

Gender differences are also significant among male and female business students, as seen in Figure 3. In other words, it can be concluded that male and female managers have relatively similar general values. 5 out of 6 values are perceived to be more important for female students. Women perceive as more important values free time (p=.002), family happiness (p=.029), cohabitation among people (p=.036), security (p=.017) and rest (p=.005). However, creative achievements are more value by men (p=.029).
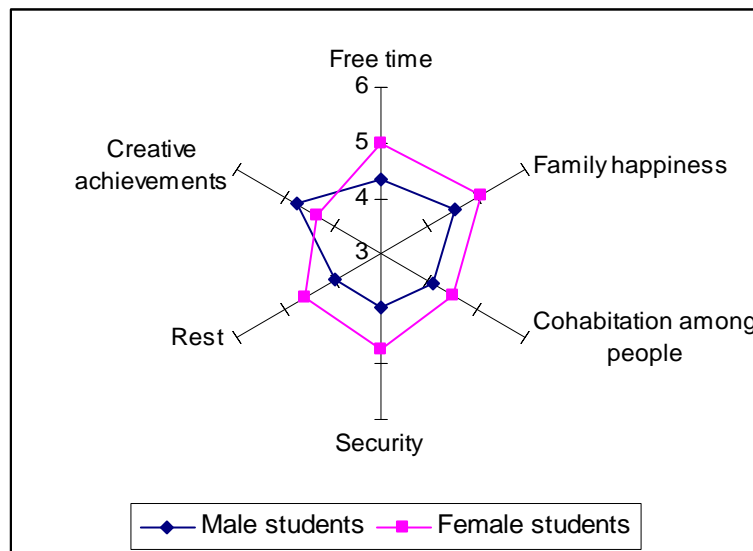
Source: Research data

Figure 3. Assessment of gender differences among students

4.2.4. Perceived differences between contemporary and future managers

This subchapter provides answers to the last research question which refers to the examination of differences between managers and students. The rankings of values presented in previous subchapters have already shown that there are differences in rankings of values between managers and students. Other studies which have been carried out in the past have shown that age does have a great influence on values. Younger people tend to put more emphasis on social life, acquaintances and friends. They are also more attracted to hedonistic areas of life, such as enjoyment, rest, etc. Figure 4 presents the differences in perceived importance of values between managers and students. Only those values are presented where a statistically significant difference has been proved. There are some other values where significance level is slightly above the permitted p value. With a greater sample perhaps these values would also statistically divide the samples.

Students in the present study perceive free time and friends as more important. This gives them the opportunity to get to know themselves better. Social life is to students also more important. It is interesting however that managers, who are said to be people oriented, and in fact need to be extrovert in order to lead others, do not see social life as important in their life. Students on the other hand, do get information about the importance of networking almost on a daily basis on the faculty. Managers, who live "the new economy" do not seem to care about it as much. Comfortable life and constant entertainment is also highly valued by students in comparison with managers. Being different, innovative and not conformed with rules at times is also more valued by students. This result probably reflects the fact that creativity and non-conformism are characteristics that are sought by companies' HR managers in job advertisements as well as interviews. Even though it received a mean value above three there are still more important values for both, managers and students. Surprisingly, loyalty is of more value to students than managers. If loyalty is an individual's value, than decisions in private as well as in professional life are made in accordance with it. Finally, students are keen on equality among people, which to a certain extent is not in coherence with individuality.

To managers, hard work, order and discipline are of premium importance, a situation that has been proved by past studies. Hard work is a value typical of middle-aged and old managers. Vision is a value that managers, if they want to be successful, need to demonstrate on a daily basis. In Slovenian case, vision is among most important values. Students however at this point in their life live other values. Obeying laws is also very important and this value has been given great attention particularly in the last years, after the emergence of many corporate scandals. Wisdom and the enjoyment of art as well as love towards the state are the representatives of universal values typical of people with a substantial quantity of experience. Finally, managers value the upbringing of children and sharing with them their own experience.
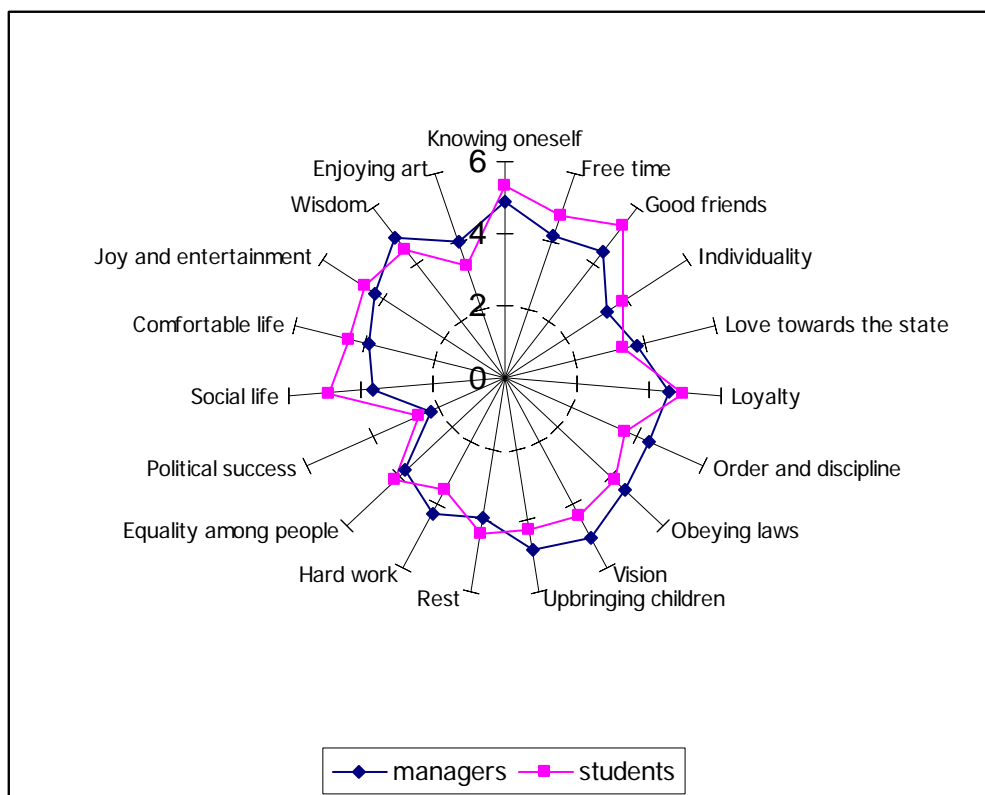
Source: Research data

Figure 4. Assessment of differences between managers and students

5. CONCLUDING REMARKS

Values are not actions, they are codes which underlie the sanctions or punishments for some choices of behavior and rewards for other. They have been extensively studied in various disciplines. Research of values in management began several decades ago and through the years its outcomes have become relevant not only to the academics but also to the business practitioners. Specifically in times of corporate scandals, downsizing practices, unethical decision making, which have all been filling newspaper pages during the last few years, the society becomes interested in the personality dimensions of CEOs. Specifically, people wonder what values are fundamental for those who lead companies, managers. Managerial values have a profound impact on individual work practices, relationships at work, shaping of the organizational culture, relationships with the exterior environment (business partners, suppliers, customers, government, society at large). It can be deduced that managers own a specific set of values.

The reasons for studying values on two samples in Slovenia are multifold. It has often been stressed in the public, that values in the Slovene society are changing and that they show a severe crisis. What is particularly interesting in the studying of values is their dynamic component. Even though a value represents a relatively stable category which tends to change over a longer period of time it is still subject to change. One example of this process is surely the different value orientations and priorities between generations.

The presented study included 130 male and female managers from companies operating in various industries in Slovenia as well as 118 business students. The nature of the study was exploratory, as it aimed to discover the values of managers. The subject of exploration was narrowed down to personal values related to various aspects of life. The statistical analysis shows that managers highly value health, family happiness, honesty, freedom and wisdom. This result seems to call for a balance between family and work life as managers devote a lot of time to work. Honesty is the third most important value and is as a personal characteristic a basis for good relations either at work or at home. Managers emphasize their professional life and strive for continuous education in order to be employable and competitive, wisdom, knowledge and hard work. They are self-disciplined and value achievements. Male managers above all emphasize the importance of vision, whereas women put the importance of family happiness above all. It can be concluded that managers in Slovenia are a rather homogeneous group and possess similar values. Among least valued areas of life are fame and admiration, political success, individuality and modesty. With the exception of political success, the results are rather surprising and some even contradictory. Therefore, further analysis will be needed to get a broader perspective of values.

The second sample, the sample of business students with the aspiration of becoming managers in the future, shows to an extent different results. Analysis on students' values shows that the most important values are good friends, knowing oneself, health, freedom, loyalty and family happiness. What students least value is political success, fame and admiration, enjoying art, love towards the state, hard work and exceeding others.

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THE CHOICE OF THE CORPORATE GOVERNANCE MODEL AND ITS IMPLICATIONS FOR THE CORPORATE SOCIAL RESPONSIBILITY

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two-tier corporate governance model*

1. INTRODUCTION

The Company Law that was passed in Slovenia in 1993 as an independent state introduced a corporate governance model that was quite similar to the model which was applied in (Western) Germany for a long time. Slovene companies used the enacted governance model afterwards for more than a decade. The results were not enthusiastic. T. Subotić assessed them with the following words: » … corporate governanance in many our companies do not achieve the governance level of the comparative companies in the European Union. Especially the profit and return on capital are far under the average level if compared with the companies in the developed members of the European Union« (Subotič, 5). One might speculate that they were among the main reasons for changes in the Slovenian Company Law in 2006 that opened up the possibility of choosing either Anglo-American or German corporate governance model in Slovenian corporate practice. The truth is that relevant changes in the legal system were made first of all because of the recommendations (requirements) accepted in Brussels.

The mentioned change in the legal framework confronted the owners of the companies with the question: »Should we substitute the existing corporate governance model, applied in our company, with the variant of the Anglo-American one or should we persist with the old (according to its characteristics mostly German governance) model?« An answer to the posed question is not at all simple. It cannot be generic, meaning that it cannot be obviously the same for all companies. Therefore it is worthwile to identify and analyse the factors that may have influence on the rational choice of the corporate governance model in each company. This is the subject matter of my research in this paper.

The chosen topic is analytically approached by using a comparative critical analysis of the two quite well known corporate governance models. A historical method of analysis is also used to identify the development of the corporate governance function as one of the most important organisational functions. After the definition of the research question, research purpose and cognitive goals, the overall research method and the structure of the paper are explained. In the second part the diversity of views on the essence of corporate governance is presented and the characteristics of the two main known corporate governance models described. Later on an analysis of the factors that support the choice of Anglo-American

model is carried out as well as a similar analysis of the supportive factors that are linked with the German model. How the concept of the corporate social responsibility could be implemented within each of the two models is the issue that is discussed in the fourth part of the paper. The conclusion summarizes the analytical findings and suggests the most probable developments in the corporate governance models in our environment.

2. DEVELOPMENT OF AND CONTEMPORARY CORPORATE GOVERNANCE MODELS

2.1. Historical development of the corporate governance function

The first enterprises in the human history were small economic units that were governed by individual owner. Their efficiency and effectiveness were dependent on the owner's rational decision-making. Enterprises were forced to grow if they wished to achieve a higher economic efficiency. Their size became in time too large for an individual owner to perform alone efficiently the governing and managing function in such enterprises. The decision-making process, because of its complexity, demanded capabilities that surpassed those of an individual. The business firm's owner was forced to employ professional leaders, who are called managers today and who were hired to assist the owner in managing the enterprise (Rozman, p.100). The originally uniform enterprise governing function was slowly divided into two organisational functions, namely governance and management. The enterprise's owner kept in his hands the competencies (rights) for making all those decisions that were important to promote his interests. Managers took over the management function, meaning the right and obligation to co-ordinate the enterprises's business process in the most efficient way with the purpose to assist the owner in achieving the objectives established by him. Managers became in this way owner's agents (trustees). They entered into a specific relationships with the owner which were the basis from which they derived their power for decision-making in an enterprise. Such a development opened the possibility that managers did not behave in the way which was the most prefered by the owner. The problem how much authonomy should the owner delegate to his managers became real. Economic theory knows this problem as the agent problem nowadays.

The further economic development drivers demanded such a size of enterprises that it was no more possible for an individual to provide all the needed capital. The solution was to pool the capital of more owners together. This innovation changed the governance function radically. Instead of one owner holding alone the governing function in his hands this function was allocated to more owners. The enterprise transformed itself into a partnership organisation and later into companies. A further dispersion of ownership shares in companies resulted in companies on shares with a very dispersed ownership. These changes contributed to an evolution of the governance function in enterprises. This function does not mean anymore a simple relationship between one owner and his managers. It became a complex set of relationships between many owners and their managers. Because of the complexity of those sets of relationships, they can be establish in many different ways. Here we find the ground for eraction of many different corporate governing models.

In spite of the (theoretical and practical) possibility that numerous different corporate governance models appear, it is fair to acknowledge that we know two main types of relationships in the field of corporate governance function. They are the Anglo-American and the German (Continental European) model. Each of the two (conceptual) models solves somehow differently the problem of power allocation (power for decision-making), decision-making efficiency and designing the corporate governing and managing function in an organisation.

As companies grew further, they became extremly large and complex organisations. The number of the owners of such organisations increased tremendously, too. Because of these developments individual owners were loosing their strong impact (power) on decision-making. The owners' dispersed ownership enabled the managers to gain additional decision-making power and concentrate in their hands the power that enabled them to neglect to a significant degree the owners' interests while managing the company. It would be wrong not to mention that the developments in external and internal companies' environment created the growing power of other stakeholders' groups in the companies too. The employees' co-determination phenomena in Europe very clearly indicates this fact.

2.2. Contemporary views on the essence of the corporate governing function

The theory of corporate governance as we call the phenomena of the governing of the companies today is not very well developed. Many different interpretations of its essence can be found (Turnbull, p. 181). Shleifer and Vishny define governance as the way in which suppliers of finance to companies assure themselves of getting a return on their investment (Shleifer & Vishny, p. 2). The definition is not comprehensive enough to include many companies' stakeholders. Collin and Cesljas define corporate governance as a system by which companies are directed and controlled (Collin & Cesljas, p. 164). Their definition is very general and not enough precise description of the phenomena. It does not emphasise the essential issues linked to solving the conflict of interest between two groups of actors, i. e. owners and managers, and the importance of the solution for efficiency of the company. The corporate governance, defined by OECD (Gregorič and Zajc, p. 263), as a set of mechanisms that regulate mutual relationships between those who dispose with the company's resources and those who actually contribute financial and non-financial means, seems to be more comprehensive and therefore better.

From the historical viewpoint the corporate governing function was developed as an organisational function (determined generally always by individual socio-economic system) that was a source of all the power in the enterprise and that, from the dynamic aspect, represents a process of establishing objectives and business policy as well as making all other important decisions which take care of the enterprise owners' interest (Lipovec, p. 52). Such a definition clearly suggests that this function encompasses socio-economic relationships that are of research interest for economics as a science and (internal) organisational relationships that are of research interest for organisational science. All those relationships can be created in many ways. It is difficult to say, that they could be formulated in an optimal way. The lawmaker has no possibility to define them as an optimal corporate governance system (Gregorič and Zajc, p. 267). It is pretty clear that the issue of a better or worse corporate governance model can be solved only (of course by taking into account the existing legal framework) for an individual company.

Corporate governance systems change in time and in individual countries. The corporate governance function did not carry its appropriate role in the developed corporate world in the last 30 years (Mac Avoy & Millstein, p. 9). The increasing number of individual owners, increasing share of institutional owners, decreasing power of individual investors, growing role of multinational companies, strategic alliances, networks, virtual organisations and enterprise clusters have contributed to such development. The stories of Enron, World Com, Vivendi, Parmalat and many others vividly show the problem.

Privatised previous state (social) enterprise in the European transitional countries experienced with many weaknesses of their corporate governance models too.The state and 'para-state' institutions, private investment funds, and internal owners dominate in many companies, while external investors do not have enough voting power to control the companies (Gregorič, et al., p. 184). The underdeveloped capital markets do nor provide a needed inflow of fresh capital into companies nor do their liquidity level offer an indirect owners' control over the behavior of management boards. The management boards mostly do not look for new fresh capital. They prefer to take care of maintaining the existing ownership's structure.

If we may talk about a corporate governance crisis today, then the relevant question is how one can come out of it.. The company has strived historically in its development to achieve one basic objective, i. e. performing in such a way that its profit and returns for the shareholders will be improved (Mac Avoy & Millstein, p. 11). More recent developments created the beliefs that also other company's stakeholders should participate in corporate governance together with the owners and control managers' decision-making as well as take part in making decisions regarding the profit allocation. The Continental Europe accepted this kind of beliefs more enthusiastically than the Anglo-American part of the world. In this regard we can say that so called stakeholders' concept linked to the corporate governance issue are getting support because of many reasons and recent developments. Will the way out of the corporate governance crisis be finally in the implementation of the stakeholders' concept? The answer to this question is not quite clear today. Many oppose to such a prediction by arguing that Anglo-American part of the world is achieving better overall economic results nowadays practicing a different corporate governance model. It could not be completely unbelievable that the corporate governance systems in the future will be more as some kind of the convergence of contemporary known systems.

2.3.   Two main corporate governance models in the world and their characteristics

We can find two extreme views on corporate governance systems today (Kuznetsov & Kuznetsov, p. 256). The neoclassical school considers that the company's owners (shareholders) are the sole group governing the company. On the other hand the corporate social responsibility school suggests to consider the company not exclusively as an entity that creates value for the shareholders, but as a coalition of primary stakeholders that should satisfy their interests. It means that today there are basically two different conceptual models of the corporate governance. These two models can be find under other names as well. Many authors speak about outsider and insider model of corporate governance. The major supporters of the first model can be found in USA and UK. The main supporters of the insiders model can be meet in Germany and other parts of Continental Europe as well as in Japan (Gregorič et al., 2000, p. 186). The first model appears also under the name Anglo- American or one-tier model, the second as a German or two-tiers model.

Both main corporate governance models include governing and management bodies or better to say sets of relationships between these to organisational functions (Poročilo o upravljanju javnih delniških družb 2006, p. 5). The shareholders' assembly and the board of directors are the governing bodies within the one-tier model. Members of the board of directors are external (i. e. persons that are not employed in the company) and internal. Internal members are executive directors – i. e. top managers of the company. The competencies and obligations of the board of directors are basically defined by the law in the relevant model, but the law does not forbid the board to delegate some of its competencies and obligations to executive directors. If the chief executive officer takes over at the same time the role of the chairman of the board of directors, then a very serious question appears whether the board of directors in this case can be still considered as a governing body or it is trasformed really in the main management board of the company. One-tier corporate governance model does not include any employees' participation in corporate governing function. Conflicts of interests between owners and managers might appear within this model very easily when executive directors concetrate too much power in their hands. The insider model is typical for the UK and USA, but later it was put into practice also in some other European countries (France, Swizerland, Italy, Sweden etc.). Macedonia introduced this model in its legal framework among the first European transitional countries (Drakuleski, p. 1133).

The basic characteristic of the two-tiers model are the stakeholders' assembly and the supervisory board as two governing bodies of the company. The law usually defines precisely the competencies and obligations of the supervisory board and forbids any transfer of these to the management bodies or individual managers. The highest managerial body in this model is the managing board which might consist of one or more managing directors. The supervisory board cof exclusively external members. The exemption to this rule are representatives of employees who are members of the supervisory boards in larger companies. The supervisors are elected by the shareholders. The employees' representative/s in the supervisory board is/are elected by the employees. The governing and the management function are clearly separated within the two-tiers corporate governance model. Some complexity and »multidirectional subordination« arise within the relationships because of the employees representative/s in the supervisory board. As supervisor/s he/they are supposed to control the managers, but as employee/s is/are suborninated to the managers. The two-tiers model is applied in Germany, Austria and Netherland. It was built into the legal systems of nearly all European transitional countries (for example Czech Republik, Estonia, Croatia, Latvia, Litvania, Hungary, Poland, Slovakia, Slovenia) at the beggining of their transition.

3. ANALYSIS OF FACTORS INFLUENCING THE CHOICE OF THE CORPORATE GOVERNANCE MODEL

Each one of the two main described corporate governance modelS has evolved on the ground of specific conditions in the companies' external environment. It could be said that each model is based on a set of assumptions which must be present in its environment. If the assumptions are not realistic, the model will not be efficient as expected. Its use will point out its different weaknesses. Let us therefore analyse both models from these two angles, i.e. their assumptions and potential weaknesses.

3.1. Factors supporting the choice of one-tier corporate governance model

The Anglo-American corporate governance model was developed on the classical theoretical economic assumptions: The company is governed directly by its owners or indirectly by the their chosen representatives. The governance fuction holds absolute power in the company. The company's purpose is creating a profit. The owners are the sole interest group in the company exposed to the risk of loss, therefore they are entitled to the whole profit created (after an appropriate tax on profit is paid). Other company's stakeholders do not take any risk of loss and therefore they can claim only payments in accordance with their productive contributions. Their services must be paid according to the contract. Because of this they can not require their participation in profit sharing. These assumptions are still valid in spite of the fact that the model was being trasformed in the companies with ever increasing dispersion of the ownership structure througout the twentieth century in the direction that means constantly higher integration of corporate governance and management function (Mac Avoy/ Millstein, p. 2).

In the one-tier corporate governance model the board of directors performs a control function, but it makes many (strategic) managerial decisions too. Executive directors, that are members of the board, hold in their hands the management function, at the same time they are supposed, in their role of being the members of the board of directors, to control the company's management. The outside members of the board of directors' relationship with the company's owners is much more simple and therefore clear. The inside members of the board relationships are on one hand supporting the company's owners who elected them as members of the board, but on the other hand their critical relationships are established and maintained with the board of directors as a collegial body which should supervise them in their role of company's managers. These two sets of relationships can be clearly distinquished here. The existence of such sets of relationships potentially offers the possibility that inside members of the board will not behave and act in best interest of the company's owners. The governance function as a process of protecting and promoting the company's owners interest has lost because of that at least partly its efficiency. Managers who are at the same time members of the board of directors might easily trasform their relationship of being owners' trustees into a relationship that wil not be based on the owners' interest in the forefront.

If the country's legal system at the same time allows that the Chief executive officer is a boards of directors chairman, then the danger that the managers's role of being the owners' trustee will be changed to something completely different is quite real. Such potential deformation in the relationship between owners and managers becomes still more probable if the legal system in a country allows the proxy mechanism to be used by managers regarding decision-making at the shareholders assembly.

The competencies of the board of directors in the one-tier corporate governance model are regularly larger if compared with those of the supervisory board in the two-tiers model. This fact diminishes a danger for deformations to appear in the relationship between the insider members of the board and the company's owners.

The competencies of the supervisory board are regularly precisely defined by the law. They encompass the choice of the managing board and the control of the company's financial performance as well as firing of the managing board's members. All other

businees decisions are in the hands of the company's managers. The top managers might consult the supervisory board but this is not obligatory.

In the one-tier model, apart from all the competencies mentioned for the supervisory board in the two-tier model, the board of directors as a body is also competent to make strategic decisions, while the operating decisions are expected to be made by executive directors only. This division of competencies between the board of directors and the company's management means a certain security device built in the model that protects the company's owners and does not allow executive directors to make any strategic decisions by themselves that would neglect the interests of the company's owners.

The described relationships between management and both governing bodies within the one-tier corporate governance model leave many possibilities for the conflict of interests to appear between two most powerful interest groups in the company. The danger of making decisions which are not in best interests of the company's owners is increasing if the level of integration of a governing and management function within the board of directors is higher.

Let us analyse the assumptions on which the one-tier corporate governance model is built and its potencial efficiency exepcted!

One –tier model has been developed for:

- a large independent corporation with a dispersed ownership structure,

- a well developed legal system that discourages ownership of banks and other financial organisations and protects well small shareholder,

- corporations situated in environments characterised by strong financial markets and small government intervention,

- an environment with the domination of competitive culture,

- the board of directors that is quite independent regarding its shareholders and stakeholders.

Existence of large independent companies with a dispersed ownership structure means that there aren't just a few big companies' groups in the economy with a wide network of subsidiaries whose business policies would be well coordinated from the parents' centers and consequently centainly diminish the competition. A high level of competition on the market forces the management teams to constantly strive for business performance improvements and company's growth.

If a dispersed ownership structure is one of the important assumption for the one-tier governance model introduction, then it is clear that individual shareholder has negleageble power. There are no (or there are rarely) shareholders who would have controlling shares in the company's ownership. Therefore such small owners need legal protection to be as efficient as possible. In such environments it is better if the use of proxy mechanisms are not allowed. Each small shareholder must be protected against making important decisions linked to large changes of the company's status and other radical changes without his needed participation.

Comprehensive and honest annual reports of the company's performance made and presented to the owners are urgently needed. The legal system must offer an efficient way for sueing members of the company's board of directors and top managers for their misbehaving and wrong doing. The usage of the »internal informations« for providing personal benefits must be qualified in the legal system as one of the greatest »sins« which could be efficiently penalised in the court procedures.

Shareholders have potentially a good indirect control over the behavior of company's management, if there exist strong capital markets in the country. Any dissatisfaction with the company's performance may always express by selling their shares on the very liquid capital market and by investing their capital in another venture. With an increasement of such »runaway« of the shareholders the share prices for that particular company will start to diminish. The final outcome will most probably be firing of the top management of the company. If in the country the capital market(s) is (are) weak (not very liquid), then the stated indirect owner's control over the company's management does not exist. It cannot be implemented in this way. Therefore shareholders' interest can be much more easily neglected by the management.

One-tier corporate governance model assumes that the government does not intervene strongly in corporate governance practice. If the government interferes in company's business decision-making, decisions will be based most probably on quite different criteria (first of all political instead of economic ones) than if there is no such intervention. If investors cannot be sure that the company will follow the objectives and goals that they consider as the right ones, they will not be willing to take over the risk linked to investing in such company.

Existence of a competitive culture in the environment is an important assumption for well-functioning of one-tier model. Competition is a mechanism that motivates managers to make decisions that improve the company's financial performance in the long run. If competitive environment exists managers have much less room for implementing their own group interests that would not be in accordance with interests of the company's owners interests.

Banks and similar financial organisations are economic entities that should not invest their capital into ownership shares in companies. If they behave otherwise they take over risks that are not typical of financial organisations. Their risk exposition would change radically by doing so. The monetary authority must intervene in such cases. Banks and other similar financial institutions dispose with large capital. If they enter the business firms' market, they are able to change quickly the company's ownership structure. It could be rapidly trasformed from a dispersed into a concetrated one. The assumption of a dispersed ownership ceases to be valid. Because of these reasons numerous countries forbid by law that financial organisations would be shareholders in companies (Collin/Cesljas, p. 163).

Well qualified and very independent ouside members of the boards od directors are needed in the one-tier corporate governance model. They must be able to take over the competencies for directing and controlling the company's performance. They have to take over the heavy responsibility for the board decisions towards the company's owners who elected them as well as towards other primary stakeholders. The board chairman should be ideally a strong personality and not an insider. He/she needs an excellent professional expertise that will enable him/her to establish his/her independent attitudes regarding important issues of the company operations and development. He/she must be in a position to provide the board members with the key relevant information. Such chairman must be able to put together the

agendas for the board meetings that will focus on company's strategic issues and that will force top managers to clarify their intended way of dealing with these issues. The chairman must be able to monitor and supervise the behavior and activities of the executive directors. All his/her tasks mentioned above will not be carried out appropriately if he/she is not able to dedicate himself/herself to an efficient performance of his/her role as a chairman. The logical consequence of all these requirements is that the chairman is well remunerated for his/her job. High professionality, personal reliability, dedication to the task and ability to establish independent attitudes must be needed traits of all other outside board members too if the one-tier model is expected to function well.

It is clear that in practice one-tier corporate governance model produces more or less good results. It shows even serious weaknesses in many cases. In some cases it contributes to the assessment that it is completely unsuitable. Then one starts to talk about the corporate governance crisis.

One-tier model weaknesses appear first of all because all its assumptions are not fullfilled and therefore the model does not function properly. Holes in the legal system could be the cause for development of serious deformations in companies' decision-making processes and for the damage done to shareholders. It happens frequently that the small shareholders are those whose interests are damaged the most. The Russian experiment with the introduction of one-tier corporate governance model in the begining of the transition (Kuznetsov/Kuznetsov, p. 249) might be a serious warning that the chosen governance model is not able to produce good results if the assumptions for its efficient functioning are not fullfilled.

One tier-model is the product of a liberal ideology. As such it is less suitable for the environments in the European transitional countries where such ideology is not present. Key assumptions for its efficient functioning are still not given in those economies. Their capital markets are still weak and unefficient. Shareholders are not in a position to exit from the company in an easy way. They are still not (especially the small ones) efficiently legally protected. There is not prevailing a competitive culture but some kind of a paternalistic one. Exploiting the insiders' information is still very much present and not appropriately legally sanctioned. Strong neformal links between politicians, top managers and the largest owners still exist. Banks are still important owners of many companies. Governments like to interfere in business decision-making. Auditing companies do not carry out very well their obligations regarding the provision of an honest and correct information on companies' performance.In some cases they even allow that managers not to disclose the real difficult company's situation. Managers that are active in previous socialist countries still behave in the way which was typical in the old system. They are very slow in their decision-making. Their orientation is rather short-sighted than long-sighted. They are still rather inflexible. They further maintain strong linkages with the local community. The managers' mobility is low and their mutual relationships strong. All these traits are not an appropriate ground for one-tier corporate governance model to function efficiently.

Serious weaknesses in the functioning of the one-tier model in the world practice can also be perceived because board members do not perform well their tasks. There are many outside board members that do not devote enough of their time to their supervisors' role. The board members' abilities to assess the company's environment, to analyse comprehensively the company, assess the critical human resource and political issues as well as the accounting practices in the companies are not all the time up to the level (Mac Avoy/Millstein, p. 3). The board members' remuneration is also not in accordance with job demands.

It would be too naive to expect that legal regulations could produce an efficient functioning of the one-tier corporate govenrnance model. On the contrary, the model is built on the assumption that legal framework enables those who hold the governance function in their hands to be as free as possible in establishing practical solutions for the their company's governing and management function. Such a concept opens up the posibilities for deformations in the perfomance of the governing function too. A large open space for deformations initiates the erection of different ethical and governing codes. Instead of diminishing unwanted behaviour they leave an open question of what positive efects might any such code have regardless of the level on which it is established.

3.2.   Factors supporting the two-tier corporate governnance model's choice

The German (two-tier) governance model is based on assumptions different from the Anglo-American one. Its most important assumptions are the following (Collin/Cesljas, p.167):

- Business group systems dominate in the economy.

- Financial markets are weak in the country.

- A government is used to intervene strongly in the economy.

- A rather co-operative or authoritarian culture prevails in the economy.

- Close connections are present between corporations and financial organisations.

- Company's owners are not the sole stakeholder group that takes over the business risk.

- More sizeable »governing aparatus« and wider participation in decision-making do not increase much the companies' costs.

The corporate governance function is carried out by two bodies in the two-tiers model. The shareholders' assembly is the first one and the supervisory board the second one. The top management body is a managing board. It may consist of just one person or of more managing directors. The employees' participation in company's governance and management is practiced in larger companies. The representatives of employees are members of the supervisory board in larger companies. An employees' director is the member of the top management if the company is large. Members of the supervisory board are elected by the shareholders' assembly (with the exemption of the representative/s of the employees in the board). The supervisory board nominates the members of the managing board. Members of the managing board and other top managers cannot be outsiders. The main task of the supervisory board is to nominate and to fire members of the managing board as well as to control the company's financial performance.

On the two-tiers corporate governance model there is a very clearly defined relationship between persons responsible for corporate governance on one hand and persons responsible for managing the company on the other hand. The governing bodies consider the company's managers as their agents that were selected and authorised to manage the company on behalf of the company's stakeholders. Therefore the supervisory board expects from the management to behave and act in the best interests of stakeholders. In a comparison with the

classical relationship between the company's owners and management the two-tiers model includes nowadays two main sets of relationships which are based on the existence of two interest groups, i. e. the company's owners on one side and employees on the other side. Other interest groups, like for example local community, suppliers, customers etc., are not directly included in the corporate governance within the German model. Their vital interests are dealt with legal regulations and by their own independent decision-making.

Existence of large business groups in the economy diminish a competition in a country. In such circumstances the one-tier governance model does not stimulate properly the company's management to focus on improving the company's financial performance and growth. Integration of the governance and management function in such environments might not produce the expected results. It seems to be a bad solution.

If capital markets are unefficient and weak then there are less opportunities for company's owners to perform an indirect control over managers. Owners have difficulties in selling their ownership shares in companies if they are not satisfy with the company's management. In such circumstances a more direct supervisory control of the company's management is needed.

If companies experience a stronger government intervention in business decision-making then owners need a more direct control over their company's management. It is clear that the government wants to have influence on the company's governance if its ownership share is not negligeable. Less clear are all those cases in which the government's influence and control are implemented in an indirect way in spite of the fact that the government has no stake in the company's ownership. Such influences might be implemented by carrying out its control through organisations like banks and other organisations whose cooperation is important for a company. Let us recall how French or Italian government behaved recently regarding the potential take-overs of some of the French or Italian business firms. It is not difficult to find similar examples in our region too.

If banks and other financial organisations hold larger ownership shares in companies, then they attempt to execute direct control over the companies performance. The supervisory board can carry out such a task more efficiently than the board of directors in which there is a mixture od representatives of owners and management.

G. J. March and M. R. Cyert began to develop a theory of the firm as a coalition of interest groups already far back in the sixties in the previous century by publishing their book A Behavioral Theory of the Firm (Mallory, p. 420). These two researchers initiated a new view on the enterprise as an organisation which should be governed by more interest groups and not just by company's owners. Here one might find important roots for the concept of the corporate social responsibility too.

The Anglo-American corporate government model cannot easily incorporate other interest groups into the company's governers. Therefore the phenomenon of the corporate social responsibility has got less supporters in the Anglo-American part of the world than in Europe. In principle, the German model allows easily to include besides employees as an interest group also any others as potentially eligible for carrying out the corporate governance function. By widening the interest base present in governing it seems that a company would be more efficiently directed towards paying approapriate attention to its social responsibility.

3.2.1 Corporate social responsibily and its implications for the corporate governance model

H. R. Bowen is considered to be the first who published a book on Social Responsibilities of the Businessman in 1953, not yet of a business firm (Carroll, p. 271). H. Johnson defined later a socially responsible firm as one whose managerial staff tries to balance a multiplicity of interests of different groups instead of striving only for maximisation of profits for its shareholders (Carroll, p. 273). He attempted really to integrate March's and Cyert's views on the firm with the concept of the corporate social responsibility. His socially responsible company takes into account other stakeholders too. G. A. Steiner explained the corporate social responsibility more as an attitude of the way a manager should approach his decision-making than a great shift in the economics of decision-maiking (Steiner, p. 164). M. Friedman completely rejected the concept already in the 1970 by stating: …»few trends could so throroughly undermine the very foundations of our free society as the acceptance by the corporate officials of a social responsibility other than to make as much money for their stockholders as possible« (Carroll, p. 277). D. Votaw warned us early that »the term corporate social responsibility is a brilliant one; it means something, but not always the same thing, to everybody« (Carroll, p. 279-280). This diversity of interpretations of the term still persists.

Alternative explanations of the corporate social responsibility which exist are as:

- just legal responsibilities of the company.

- a socially responsible behaviour in an ethical meaning.

- a responsibility for »something«.

- a responsibility for charity contributions.

- a social concious.

- legitimacy in the context of »belonging« or being proper or valid.

- something concerned with what economists term 'externalities', costs not absorbed in the product or service and not paid directly by the customer but taken over by the wider community (Finlay, p. 80).

- a concept that embraces four kinds of responsibilities: economic, legal, ethical and philantropic (Carroll, p. 280 and 289).

- a good management (Survey: Corporate Social Responsibility).

According to Carroll three themes or theories, related to corporate social responsibility, captured the most attention in the 1990s, namely corporate social performance, business ethics and stakeholder theory (Carroll, p. 290). In spite of the vivid discussion no theory has been yet developed that can provide a model of the corporate social responsibility nor is there any general agreement about the meaning of the term from an operational or managerial viewpoint (Clarkson, p. 92).

In spite of the existence of opposing views on the corporate social responsibility concept surveys of the companies' behavior show that companies are not rejecting it completely.

They include in their annual reports not just information on profit created but on their many other aspects of a socially responsible behavior too.But companies' social behavior reporting seems to be a little more than a cosmetic treatment. C. Crooke argues that this should not give cause for concern (Survey: Corporate Social Responsibility) because capitalism does not need the fundamental reform that many corporate social responsibility advocates wish for. He stipulates further: «If CSR (= corporate social responsibility) really were altering the bones behind the face of capitalism - … that would be bad: not just for the owners of capital, who collected the company's profits, but … also for society at large. Better that CSR be undertaken as a cosmetic exercise than as a serious surgery to fit what doesn't need fixing.«

Is a corporate social responsibility after all a worthwile concept? Which are the assumptions on which it is based? Could it be included in the mainstream economic theory without ruining it? It seems that such questions have no clear answer. The corporate social responsibility can be connected with the definition of a company which is not part of the classical economic theory. The new definition describes a company as a system of primary stakeholder groups, a complex set of relationships between and among interest groups with different rights, objectives, expectations, and responsibilities (Clarkson, p. 106-107). If a company is understood in such a way, then managers must manage all these sets of relationships and be responsible to all stakeholder groups.

A company as a system of stakeholder groups and sets of their relationships cannot be focud on just creation of wealth for only one stakeholder group, i.e. shareholders. The purpose of a company is in this context to create and distribute increased wealth and value to all its primary stakeholder groups, without favoring one group at the expense of others. Stakeholders are persons or groups that have, or claim, ownership, rights or interests in a company and its activities, past, present, or future (Clarckson, p. 106). A primary stakeholder group is one without whose continuing participation the company cannot survive as a going concern. The secondary stakeholders influence or affect, or are influenced or affected by the company but they are not essential for the company's survival. They are groups or organisations like governments, the inhabitants of the particualr geographical region, pressure groups etc.(Finlay, p. 80).

Managers must resolve conflicts between primary stakeholder groups otherwise they will not be able to retain the participation of a particular primary stakeholder group what might result in the company's inability to create and distribute sufficient wealth or value to satisfy one or more primary stakeholder groups. If one or more primary stakeholder groups cease to participate the company cannot survive.

Such theory of the business firm logically suggests that all primary stakeholder groups are entitled to govern the company. Primary stakeholder groups will take care of many aspects of the corporate social responsibility within this theoretical framework. Therefore the stakeholder approach to operationalisation of the corporate social responsibility might have a kind of firm foundation.

The problem is that the validity of the assumptions on which this definition of the busines firm is based is not proven yet.

*3.2.2 Practical experiences with the two-tier corporate governance model in the Central
European transitional countries*

The two-tier corporate governance model is inclined to build on the assumption that its
interest groups should govern a company. They can assert the appropriate company's social
responsibility. The owners are no longer the only risk-takers and investors in the company.
Due to a dispersed ownership, they do not take more risk than at least some other
stakeholders do. Employees invest in the circumstances of the evolving knowledge society
in developing some specific knowledge and/or skills which demand from them to take over
a significant risk that authorises them to participate in the governing of their companies.
The existing tendency of the increasing variable component of employees' renumeration,
which is apparent, requires risk sharing between owners and employees. In the
environments where a participation in corporate decision-making is acknowledged as an
important value because of different historical and cultural reasons this fact contributes
additionally to preffering a German governance model.

At the begining the Central European transitional countries chose in their legislation in the
majority of cases the two-tier governance model. Their choices were based on the
assessments that the assumptions for the efficient performance of the two-tier model in
those countries are better fulfilled than in the one-tier model. It is probably true that the
choices were not made primarily because of taking into account the increasing role of
employees' knowledge and specialised skills in their surrondings. The stated legal solutions
did not necessarily mean a wrong choice. In spite of that the adopted corporate governance
models did not produced very good results in the past years.

The German model (or any of its adaptation), which was introduced in the corporate
practice in the transitional countries of the Central Europe, produces besides acceptable
results also many weaknesses. Because the companies' ownership wide dispersion
managers were able to behave in the way which was frequently not in the best interest of
the comapnies' owners (Kozarzewski, p. 2061). The owners' and the employees' control
over managers were mostly weak and unefficient. Unexperienced and unqualified
supervisors contributed to such results. Supervisory boards were in the majority of cases
quite passive and not able to perform their role. Legal regulations were too modest which
contributed to »expropriations« of small shareholders by big ones (Pavlik, p. 114). The
Czeck case in this regard is well known. Governors were inclined to look for short-range
instead of long-range benefits. Owners were in the majority of cases not willing (or able) to
invest »fresh« capital in their companies. Perceived weaknesses were identified in
intertwining the management and ownership functions in companies which enabled the
managers (if they were among the bigger owners), because of holes in the legal
regulations, to use insider informations, proxy mechanisms for their best interests and the
low level of familiarity with the corporate control changes and their effects on the side of
other internal and external owners.

The implemented corporate governance model enabled the companies' management to
develope a paternalistic relationship towards its employees taking into account first of all
the need for maintaining workplaces at least in the short-run. Governments contributed to
such managerial behavior by enacting legal regulations that favoured keeping the
employment and by reducing lenders' risks. The protection of the owners' share in the
increased company's profit was not of the first importance. The implemented corporate
governance model surpported the managerial behavior directed to satisfy the needs of all

interest groups, i. e. in accordance with the paradigm of the company as a coalition of interest groups. Companies' owners interests were not in the forefront.

Distributive methods of the privatisation of previously state (social) enterprises could be a factor that made any neglect of the owners' interests relatively »acceptable and justified«. All these facts contributed to slower changes of organisational cultures than they would be experienced if one-tier corporate governance model would be implemented.

The overall result of the application of the two-tier governance models in the Central European transitional countries could be assessed in the way as T. Subotič made it. His assessment has already been stated in the Intoduction.

4. CONCLUSION

The corporate governance models provoke reconsideration everywhere today. Dissatisfaction with the corporate governance practice requires in searching for better solutions. There is no doubt that better models can be developed. But it would be wrong to expect that one corporate governance model might be the most suitable in all environments. Historical, cultural and economic as well as political factors are diferent in individual countries and even in individual industries. Their characteristics determine the most suitable governance model. Of course, different governance models have many common characteristics which are a basis for their classification.

Changes going on in the transitional part of Europe initiate reconsiderations about the corporate governance models that would be the most suitable for companies. The companies' ownership concentration process is present. Bigger business groups are evolving. The level of companies' independency is becoming lower. Governments are withdrawing (for the matter of fact too slowly) from the circle of companies' owners. Relevant legal regulations are improving. Individual European countries are introducing in their legal systems also the possibilities for companies to choose between one-tier or two-tier corporate governance model. The efficiency of the court system is expected to be improved. There are signals that capital markets will slowly improve their performace in the transitional countries. Banks do not seem to intend their fast withdrawl from the circle of companies' owners, but such a process is somehow present. It will take quite a time to be completed. Potential and existing supervisors are improving their professional knowledge and skills. They are taking their governing role and its responsibility more seriously. The structure of economic activities are not changing so quickly as in the first decade of transition, but slowly in the directions of strengthening of high-tech and knowledge-based industries. National cultures are not unchangeble, but the attitudes towards the role of competition and remuneration of managers are not trasforming more than slightly. It is difficult to perceive that individuals would be willing to take over bigger risk. Personal linkages and familiarities between bigger companies' owners, managerial and political elites are and will be a very strong factor of companies' financial performance.

All the stated changes and inertia force companies to reconsider which corporate governance model should be applied in the company in the future. The question that is

open today is: »Should we substitute our two-tier model with the one-tier corporate governance model?«

The answer to the posed question might be given by taking into account what is written in this article, by assessing the following determinants of the corporate governance model choice:

- What is the company's independecy level in the economy?

- How well is the relevant capital market developed?

- How well is the legal framework developed and how efficiently eventual conflict of interests among stakeholders can be settled by using a legal way?

- To what degree does government interfere with the business decision making?

- Is the level of rivarly in company's external environment high enough to force top managers to focus on icreasing the company's growth and financial performance?

- Do banks and other financial organisations have a significant influence on corporate governance function?

- Does the broad and narrow company's environment have a positive attitude towards competition as a way of solving economic problems?

- What are the professional quality, independency and efficiency of external company's auditing in the country?

- How easy is it to find higly qualified and well experienced persons that are able to build their independent position regarding their relationships towards different stakeholder groups and that are willing to dedicate needed time and energy to perform their tasks well for the outside members of the managing boards?

If the answers to the above stated questions are adequate (i.e. in accordance with the thesis suggested in this article), then the choice of the one-tier corporate governance model for the particular company might be a correct one. On the other hand, if we do assess that:

- The company operates in the industry in which a few business groups dominate and where a typical oligopolistic behavior prevails.

- The capital markets is weak.

- The legal framework is poorly developed and the efficiency of the legal enforcement is unsatisfied.

- The government's intervention into business decision-making is apparent.

- The banks and other financial organisations are still important owners of the companies.

- The paternalistic culture and participation in decision-making as an important value are strongly present.

- The company is situated in the high-tech or knowledgebased industry.

- An shortage of well qualified persons for the positions of supervisors in companies' managing boards exists,

- It should be concluded that it is better to keep a two-tier corporate governance model in that particular company and to try to improve its performance.

- The whole assessment procedure for choosing the right kind of the corporate governance model for a particular company might be carried out by using the tool described in the Table 1. A team should assess how well the individual assumptions (i.e. the assessment criteria in the Table 1) for the analysed governance model are fulfilled by asigning appropriate number of points to each criterium and by assessing the importance (weight) of each of the criteria.

- If the suitability of one-tier governance model was assessed in the Table 1, then the sum of weighted points (i. e. 2.20 what is less than average score) suggests that two-tier model is more appropriate in these circumstances.

Nowadays in many cases the one-tier corporate governance model might seem to be more efficient. If the importance of the employees' knowledge grows in the future, it might force in looking for a convergent governance model instead of a two-tier one. Employees might join owners as holders of the right to govern companies. Other primary and secondary stakeholders' groups will not be able to change radically their recent role regarding company's governance in foreseeable future too. They will be able to protect their interests good enough by taking part in the political processes that result in legal regulations of business firms operations. Of course they will try to implement their interests in other ways too. Different ethical codes of behavior are already in use in this regard and mean one way of influencing the companies' behavior. The question is how efficient they can be.

Table 1: Tool for assessing and choosing the right kind of the corporate governance model for a company

Assessment criterium	Point Assessment	Weight	Weighted Points
1. Company's degree of Independency	4	0.10	0.40
2. Capital market's efficiency	2	0.15	0.30
3. Level of legal regulations	2	0.10	0.20
4. Governement intervention	3	0.10	0.30
5. Banks as important owners	2	0.10	0.20
6. Attitude to competitivness	2	0.10	0.20
7. Importance of individuals' knowledge	2	0.15	0.30
8. Access to skillful supervisors	2	0.20	0.40
9. Total			2.20

Remark: Scale for the point asessment:

1 point = very low (very bad)
2 points = low (bad)
3 points = medium
4 points = high (good)
5 points = very high (very good)

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THE EVOLUTION OF OWNERSHIP STRUCTURE, PATH DEPENDENCY AND ENTERPRISE PERFORMANCE USING DYNAMIC PANEL DATA MODELS

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1. INTRODUCTION

One of the questions attracting the attention of scholars of enterprise behaviour has been: why do we observe ownership concentration in some companies and dispersed ownership in others. There are great divergences in the pattern of ownership of firms in different countries around the world. The dispersed ownership pattern is predominant in the US and the UK while the concentrated ownership pattern is more common in Europe and developing countries. The differences in the legal framework between countries and path dependency are thought to explain different ownership structures around the world.

However, we also observe differences in ownership concentration within a country and also within the same industry. These differences in ownership structures and their impact on corporate performance have been and still are at the centre of a major economic debate. Empirical results on this issue reflects the complexity of the relationship between ownership and performance- with many of them predicting a positive relationship, others a negative or no relationship. In this paper we investigate this relationship, especially the evolution of ownership structure, path dependency and firm performance, for a sample of privatised firms in Albania.

The results of previous studies are closely related to the particular estimation method used. If ownership structure is treated as exogenous, the relationship is positive and significant. When ownership structure is treated as endogenous and dealt with through IV techniques, then the results change indicating no significant relationship between ownership and performance. But these results are unreliable because of the lack of information about instruments. Later, when panel data techniques were employed, the authors did not (or could not) adjust for heteroskedasticity and autocorrelation – and again ended up with inefficient estimators. Using the work of Baum, Schaffer and Stillman (2003) and the dynamic panel data modelling of

Arellano and Bond (1991) and Arellano and Bover (1995), this paper tries to deal with some of the problems of previous studies and generate more reliable and efficient empirical results. The paper is organised as follows: In the next section we discuss the theoretical and empirical literature on the relationship between ownership and performance in developed market economies. In section 3, we briefly examine the literature on countries in transition. Here we also discuss the main problems and shortcomings of different econometric techniques used in previous studies and also explain the advantages of using new GMM techniques. Our empirical results using several techniques are presented in section 4. In section 5 we provide some concluding remarks.

2. OWNERSHIP STRUCTURE AND FIRM PERFORMANCE

The debate on the relationship between ownership concentration and firm performance has a long history, going back to Berle and Means (1932). The separation of ownership and control, and the associated agency cost, implies that with the diffusion of ownership amongst a large number of shareholders, there will be greater opportunity for managerial discretion with self-seeking managers using their increased control to pursue self-interested policies. In developed market economies, however, there is a range of market-based mechanisms which aim at ensuring that managers do not engage in such policies. Given that these mechanisms may not operate effectively in some circumstances (e.g., in developing countries or countries with weak law enforcement), ownership concentration has developed as an alternative mechanism for ensuring that shareholders can exercise effective control over their firm. Ownership concentration makes effective shareholder monitoring feasible and prevents managerial expropriation (Shleifer and Vishny, 1986 and 1997).

While the above literature concentrates on the benefits of ownership concentration, the last few years have witnessed the emergence of a new literature highlighting the cost of this process. Ownership concentration results in reduced managerial initiative, lower market liquidity and increased opportunities for the expropriation of minority shareholders (Holmstrom and Tirole, 1993; Aghion and Tirole, 1997; Jensen and Smith, 2000; Burkart, et al., 1997; LaPorta et al. (1999); Burkart and Panunzi, 2001). This literature has led to the conclusion that shareholders may indeed benefit from the dispersion of share ownership and allowing the managers to engage in managerial initiative without the fear of interference by large shareholders. They would rely largely on the information from the stock market which would be more liquid, and produce more reliable information, in the absence of concentrated ownership.

The empirical work on the subject concentrated on the impact of ownership concentration (often managerial ownership concentration) on firm performance. Morck, et al. (1988), McConnell and Servaes (1990), Himmelberg, et al. (1999) and Holderness, et al. (1999), e.g., all found that ownership had a statistically significant, though non-monotonic, effect on firm performance. Generally their results show that there is a positive relationship between ownership concentration and performance at law and high levels of concentration and a negative relationship at the intermediate levels.[1]

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[1] For example, Morck, et al. (1988) investigated the relationship between management ownership (combined shareholding of all board members with a minimum stake of 0.2 %) and the market valuation of the firm (measured by Tobin's Q). They investigated a sample of 371 Fortune 500 firms and found a non-monotonic relationship between managerial ownership and firm performance. Tobin's Q increases when managerial

In their seminal work of over twenty years ago, Demsetz and Lehn (1985) looked at the relationship between ownership concentration and firm performance from a completely new perspective. They argued that ownership concentration is the outcome of the optimising behaviour by shareholders and is influenced by firm, industry and environmental characteristics such as the firm's performance, the particularities of the industry, amenity potential, the benefits of control, the volatility of the environment, etc. For the first time, therefore, Demsetz and Lehn attempted to model and estimate the determinants of ownership concentration. Using a sample of 511 large U.S. firms, they showed that there was no systematic relationship between ownership concentration and firm performance, thus rejecting the idea that ownership concentration contributes to a better performance of firms.

The main contribution of Demsetz and Lehn (1985) to the debate was to highlight the endogeneity of ownership structure and how this and the firm performance were determined in the same process. However, despite raising the issue of endogeneity, they used OLS estimates to argue their case, ignoring the fact that OLS estimation would produce biased results in the presence of endogeneity. Indeed all the influential studies, referred to earlier, suffered from this problem.

Furthermore, although Demsetz and Lehn raised the issue of endogeneity, they did not include firm performance as an explanatory variable in the determination of ownership structure. It took another 16 years before Demsetz and Villalonga (2001) proposed to resolve the endogeneity problem by using the instrumental variable technique (or a two stage least square model, 2SLS) in the estimation process. By using a sub-sample of 223 firms from their 1985study, they investigated the relation between the ownership structure (the fraction of shares owned by the five largest shareholders as well as that owned by the management) and the performance of these companies, with ownership treated as an endogenous variable. They found that neither measures of ownership structure had a significant effect on firm performance, thus confirming their earlier results and pointing out that while diffused ownership may involve some agency problems, it also yields compensating advantages that offset such costs. Although the employment of 2SLS technique was a major innovation in the development of this debate, Demsetz and Villalonga's important study suffered from a number of important econometric problems that remained unresolved for a long time: the instruments were not identified, they were not theoretically justified, and there was no attempt to find out (or test) if these instruments were appropriate for the purpose.

3. OWNERSHIP STRUCTURE AND FIRM PERFORMANCE IN TRANSITION ECONOMIES

With the development of the transition process and the rapid evolution of ownership structure following the privatisation of formerly state owned companies, the scholars were presented with the opportunity not only to try to examine the impact of ownership concentration on firm

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ownership is less than 5% or more than 25%. But the surprising result was the decrease of Tobin's Q when managerial ownership was between 5 and 25%. According to them managers' entrenchment or the non-value maximising behaviour of managers might be the reason for the decrease in Tobin's Q. Following the work by Morck, et al. (1988), McConnell and Servaes (1990) also studied the effect of insiders' (officers and directors) ownership on the Tobin's Q for a sample of 1,173 firms for 1976 and another sample of 1,093 firms for 1986. They also used the same technique as Morck, et al. (1988) and found that there is a non-linear relation between performance and insider ownership.

performance under the new transition conditions but also to study the evolution of ownership structure and factors influencing this evolution in transition countries. Claessens, et al. (1997) investigated a sample of 706 firms listed on the Prague Stock Exchange for the period 1992-1995. Using a Random Effect model they found that concentrated ownership (treated as exogenous) was significantly associated with higher performance (measured by Tobin's Q and profitability). A later study by Claessens and Djankov (1999), with a sample of 706 Czech firms, draws the same conclusion (also using a Random Effect model). They also tried to control for the endogeneity of ownership concentration (though not by means of a standard 2SLS procedure) and their results provided weak support for their previous findings, i.e., that ownership concentration positively and significantly affects performance.

Empirical studies relating to firms in the former Soviet Union show similar, though not as strong, results. Djankov (1999) examined the effect of ownership structure on enterprise restructuring (with labour productivity growth as one of the measures of restructuring) for 960 privatised manufacturing enterprises in six newly independent states (Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Russia and the Ukraine) over the 1995-1997 period. Using the OLS technique he found that ownership concentrated by foreign investors, at levels above 30% of total shares, was positively associated with labour productivity growth. The relation between managerial ownership and productivity growth was non-monotonic (positive at less than the 10% and above the 30% stakes and negative in the intermediate range). Similar results were obtained by Pivovarsky (2001) who investigated cross sectional data for 376 medium and large enterprises in the Ukraine in 1998. The results showed that ownership concentration (as measured by the shares of the top ten shareholders and the Herfindahl index) positively affected firm performance.

The dominant view that, because of the weakness of the legal framework and other corporate governance mechanisms, ownership concentration remains the only effective mechanism for alleviating the principal-agent problem has been questioned by a number of authors. Grosfeld and Tressel (2001), e.g., investigated the impact of ownership concentration on 200 non-financial companies in Poland over the period 1991-1998 (longer than most of the previous studies). Using the Generalised Method of Moments (GMM) (Arellano and Bond technique), they also found a U-shaped relationship between ownership concentration and firm performance- positive at low and high levels of concentration (less than 20% and more than 50% respectively) and negative at intermediate levels.[2] These results reflect the trade-off between managers' entrenchment and their incentive alignment. When the costs of ownership concentration exceed its benefits, it will have a negative effect on firm performance.

Kocenda and Valachy (2001), using a Random Effect technique, found that ownership concentration (measured by the share of the largest owner and the share of the largest five owners) had no significant impact on firm performance in a sample of 543 Czech firms over the 1996-1999 period. They acknowledged the endogeneity of ownership structure and the autocorrelation problem (of performance measures) and used the first difference of ownership indices and growth of performance measures to deal with these problems. However when Kocenda and Svejnar (2002) investigated a larger sample of 1,539 medium and large Czech firms for the same period, they obtained somewhat different results. The dispersed ownership (shown by a dummy variable indicating that no group of owners has 10% or more shares) has a higher positive effect on profit than either majority ownership (the largest owner having more than 50%), blocking minority ownership (the largest owner having between 33% and

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[2] The results are similar to Djankov (1999) though the thresholds are different.

50%), or legal minority (the largest owner having between 10% and 33%). They also provide evidence that the effect of the single largest owner does not vary with the concentration of ownership.

The majority of studies undertaken for TEs are focused on the impact of ownership structure on firm performance. However, there are a number of other studies which investigate the evolution of ownership structure and its determinants including firm performance. Earle and Estrin (1997), Jones and Mygind (1999), Grosfeld and Hashi (2001) and Grosfeld and Hashi (2004) are examples of such studies. These studies use mainly panel data sets and probit/tobit or multinomial logit techniques and deal also with the hypothesis of path dependency of ownership structure. Their results on the impact of firm performance on ownership structure are mixed- no relationship, positive or negative relationship.

The majority of these studies continued to treat ownership structure and firm performance as exogenous, thus ignoring the principle established since Demsetz and Lehn. Most of the studies discussed here (except Claessens and Djankov, 1999[3]) do not address the endogeneity issue and therefore their results will be subject to endogeneity bias.[4] Those using panel data techniques (and therefore trying to take into account the time dimension of the process of concentration too) suffered from a different set of problems. Despite their important advantages, panel data techniques are also associated with a number of problems. As panel data involves both cross section and time series data, difficulties and problems may arise from dealing with both cross section characteristics (e.g., Heteroskedasticity) as well as time series characteristics (e.g., autocorrelation). If Heteroskedasticity and autocorrelation are present in the model, then the estimator is still consistent but no longer efficient which makes the inference difficult.

The essential point raised by the present paper is that the relationship between ownership concentration, firm performance and other firm and environmental characteristics, is strongly dependent on the empirical method used. If ownership structure is treated as exogenous, the relationship is positive and significant, though biased. When the endogeneity is dealt with through IV techniques, the results indicating no significant relationship between ownership and performance but, as there is never any information about instruments, these results are not reliable. When panel data technique was used, there was no mention of any adjustment for heteroskedasticity and autocorrelation, and the estimators were inefficient estimators.

The work by Baum, Schaffer and Stillman (2003) and the wider application of new econometric techniques (in particular dynamic panel data modelling) opened up new possibilities for the estimation of the relationship. Baum, et al. point out that the Generalised Methods of Moments (GMM) techniques are better alternatives for models with endogenous explanatory variables and heteroskedasticity and autocorrelation problems. GMM with Kernel based estimation and GMM with cluster-robust option produce heteroskedasticity and autocorrelation consistent (HAC) statistics which, according to Cushing and McGarvey (1999), are necessary for statistical inference and efficient parameter estimation. Furthermore, and more importantly, these procedures produce important diagnostic tests for the

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[3] Claessens and Djankov (1999) deal with the endogeneity but not by a standard IV technique. They use a rather unknown two-step procedure: regressing the initial ownership concentration (immediately following voucher privatisation) on ownership concentration at the end of the period, and using the residuals of this regression in the main equation as a new measure of ownership concentration.
[4] Grosfeld and Hashi (2001 and 2004) raise the endogeneity issue but deal with it by regressing the concentration ratio in 1999 on the average value of a number of variables over the 1996-98 period.

instruments.[5] Both techniques produce the necessary diagnostics for testing the validity of the instruments used, i.e., the partial R-squared, the F-statistic of excluded instruments and the Hansen J-statistic. The partial R-squared shows the correlation between the excluded instruments (variables which do not appear in the second stage) and the endogenous variable in the first-stage regression, while the F-statistic can be used to test of the joint significance of excluded instruments. Bound, et al. (1995) suggest that both partial R-squared and F-statistic should be reported in any instrumental variable estimation as a 'useful guide' for the quality of this estimation process. The Hansen J-statistic, developed by Hansen (1982) as an extension of the Sargan test, is a test of over-identifying restrictions, i.e., whether the excluded instruments are exogenous and also correctly excluded from the regression. The rejection of the null hypothesis casts doubt on both model specification and the validity of the instruments (Hayashi, 2000; Baum, et al., 2003).[6]

The dynamic panel data models (or lagged dependent variable models) developed by Arellano and Bond (1991) and Arellano and Bover (1995) offer a new opportunity to estimate the ownership concentration-firm performance relationship while dealing with heteroskedasticity and autocorrelation problems as well as the appropriateness of the instruments. In these models, the lagged values or the lagged values of the first differences of endogenous variables are used as instruments. These are modern techniques which take into account the problem of autocorrelation by including dynamics (lagged values of the dependent variable) in the model. Including a lagged dependent variable in the model, according to Bond (2002), is necessary for the correct specification of the model. In other words, the omitted variables (dynamics in our case) may cause misspecification of the model. In addition, the inclusion of a dynamic element in the model is, of course, interesting also from the theoretical point of view as we can test if the ownership structure is path dependent. In other words, we can investigate if the previous ownership structure has any effect on ownership structure in subsequent periods.

4. EMPIRICAL WORK

In this paper we aim to estimate the evolution of ownership in a sample of privatised firms in Albania over a six year period, using a variety of estimation techniques, and demonstrate the sensitivity of the model to the choice of the estimation method.

4.1 The Data

The data used here was obtained by means of an enterprise survey carried out in 2003 in Albania. Initially we had aimed at surveying all 97 firms privatised in the mass privatisation programme (MPP) during 1996-97 period.[7] But we found that the number of surviving mass privatised firms was only 37.[8] Therefore, we decided to extend the survey and include

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[5] Both GMM with kernel-based estimator and GMM with cluster robust option are available in the 'IVREG2' procedure (a user written programme) in the STATA package and can also be used with panel data.

[6] The GMM estimator, however, has poor small sample properties (Baum, et al., 2003). In such cases and if the error is homoskedastic the simple IV estimator is preferred vis-à-vis GMM. Furthermore, with small samples, it is difficult to find good instruments, in terms of complying with the required criteria. If the instruments are weak, then the estimator is biased in the same direction as the OLS and using GMM produces no better results.

[7] For details of the mass privatisation programme in Albania, see Hashi and Xhillari (1999).

[8] The rest of the firms had closed down, been destroyed, ceased operation or had split into parts with none of the parts working.

additional firms which had been privatised through other methods.[9] We succeeded in tracing some of these firms by working with local officials in several districts in Albania who provided us with the needed information on the new names of these firms and their current status. We succeeded in tracking down and collecting the relevant information for 12 additional firms (from seven administrative districts in Albania) which were willing to cooperate and give us the necessary information. The majority of them (9) were privatised before 1997 and the rest (3) after 1997.

4.2. The Model

On the basis of the empirical work by Demsetz and Lehn and others, we estimate the evolution of ownership structure on the basis of the following model:

$$\text{OWNCON}_{it} = \alpha + \beta_1 \text{PERF}_{it} + \beta_2 \text{OWNCON}_{i(t-1)} + \sum_{k=1}^{2} \eta_k DOM_{kit} + \sum_{j=1}^{m} \chi_j X_{jit} + \varepsilon_{it}$$

OWNCON_{it} stands for ownership concentration of firm i in year t, measured by (a) the share of the single largest owner (LC1), and (b) the share of the three largest owners (LC3).[10] PERF_{it} is the firm performance (labour productivity).[11] DOM_{it} are dummy variables which indicate the type of the dominant shareholder (two in our case, 'individuals' and 'other firms', with other smaller categories such as the management, employees and the state forming the base group), while X_{it} is a vector of other firm characteristics including size, capital intensity, the type of dominant owner, firm-specific risk, sector of origin, time elapsed since privatisation, method of privatisation, and corporate conflict.

The model is similar to that used in previous work on the subject[12], with the exception that we have included the lagged dependent variable on the right hand side (to introduce an element of dynamics and path dependency in the model). From the standpoint of the endogeneity discussion, the most relevant observable factor influencing ownership structure is firm performance. The type of dominant owner is also expected to influence ownership structure as different types of owners (state, individuals, other firms, managers, etc.) have different objectives and types of behaviour. As far as firm characteristics are concerned, we include the same variables as in other studies. Firm size is expected to be an important characteristic with influence on the owners' decision to hold larger or smaller stakes in a company. Larger firms have larger capital resources which imply a higher market value for a specific fraction of their ownership rights and, according to Demsetz and Lehn (1985) the 'potential cost' of holding shares in large firms will be lower with more diffuse ownership. Capital intensity is another factor which may influence ownership structure. Firms' investments in fixed capital

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[9] Collecting information on these companies proved to be difficult too because, in Albania, there is no comprehensive list of the firms privatised through other methods in any government agency or ministry. The documents relating to the privatisation programme were destroyed during the civil unrest of September 1998 when a number of government buildings were set ablaze. Furthermore, the majority of companies privatised before 1997 were divided into the so-called "objects" and then privatised. Often, the part which had inherited the previous operating processes changed its name or operations immediately, or a few years after privatisation.
[10] Both measures of ownership concentration are bounded numbers, therefore following Demsetz and Lehn (1985), Demsetz and Villalonga (2001) and others, we have transformed the bounded number to an unbounded one by the following logarithmic transformation: LC1=ln[C1/(100-C1)], and similarly for LC3.
[11] We also examined the possibility of a lagged relationship (instead of levels) between ownership concentration and firm performance, but the results were largely the same in terms of sign, significance and size.
[12] The model is based on Demsetz and Villalonga (2001), Himmelberg, et al. (1999), Grosfeld and Hashi (2004) and Shehaj (2006).

(sometimes referred to as 'hard capital') are observable and easy to monitor. Thus, firms with a high proportion of fixed capital are generally expected to have a lower level of managerial ownership. Firm-specific risk is also thought to be a factor affecting the concentration of ownership. However, its impact on ownership concentration (positive or negative) depends on the existing structure of ownership and whether the firms under investigation are from established market economies or transition economies.

Sector specificity is another factor that may influence the ownership structure of firms because, given the nature of their activities including large size, large set-up costs and sector specific uncertainty, some sectors are more likely to have more dispersed ownership than others. In order to see if there is any difference between ownership structure of firms privatised earlier and those privatised later we use a variable to show the impact of the time elapsed since the firm was privatised. In order to check the importance of a conflictual environment in the firm on the ownership structure we have developed, and include, a 'corporate conflict index' (CCI) as a broad indicator of the level of conflict.[13]

4.3. Estimation Methods

We have estimated the above model using five different types of estimation methods. Initially, we estimate the model using a standard panel data technique, treating firm performance as an exogenous variable. Then we estimate the model by using the standard random effect IV technique where firm performance is treated as endogenous.[14] Next, we use the two GMM techniques discussed in the previous section, GMM with kernel based estimation and GMM with cluster robust option, where firm performance is treated as endogenous and instrumented. Finally, we use a dynamic panel data model (which is also a GMM technique), developed by Arellano and Bover (1995) which can estimate the equation in levels.[15] The results of the five estimation techniques are present in Table 1.[16] The precise meaning of the variables and their measurements are explained in Table 2 in the Appendix

At first glance, the five regressions seem to have produced some similar results in terms of significant and insignificant variables. In particular, the lagged value of the dependent variable is positive and highly significant showing that ownership concentration in our sample firms is path dependent irrespective of the estimation procedure used. In the last three regressions (all GMM techniques), the presence of dynamics explains much of the variation of the dependent variable, overshadowing other variables.[17] The sizes of the coefficients are, of course, different in different regressions - with the coefficients in the last three regressions

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[13] The Corporate Conflict Index is constructed on the basis of the existence of a number of conflictual situations in a firm. The method of construction of the index is explained in the Appendix.

[14] The results of Fixed and Random Effect models are largely the same. But because the Fixed Effect model does not allow "time invariant" variables and also limits the number of instruments (because some instruments are time invariant) we decided to use the Random Effect model. Furthermore, as Wooldridge (2002) argues, the Fixed Effect estimates can be inaccurate if there are important variables in the model with low variation over time (such as dummy variables indicating the types of dominant owners and corporate conflict index).

[15] The other, related Arellano and Bond (1991) model was not used as it is based on first differences and therefore requires a larger time dimension.

[16] Because of the space limitation, the results with the share of the largest three shareholders (LC3) as the dependent variable are shown in Table 3 in the Appendix.

[17] The high concentration of ownership in countries like Albania is largely due to the weakness of other mechanisms of control and especially the legal and institutional environment. We did control for the impact of legal environment on the concentration of ownership by using a variety of EBRD indicators for Albania. However, the variable was not significant, we believe, because its value did not vary much during the period of analysis.

being 3 to 4 times larger than those of the first two regressions. When GMM techniques are used the results are largely the same in terms of size, significance and sign of coefficients.

Table 1: Determinants of ownership concentration (LC1$_t$)

Independent variables	Dependent variable: share of the largest owner (LC1$_t$)				
	Random Effect	IV Random Effect	GMM With Kernel	GMM with cluster	Arellano & Bover model
LC1$_{t-1}$	0.272 ***	0.270 ***	0.813 ***	0.790 ***	0.928 ***
	(2.92)	(7.92)	(9.76)	(9.21)	(6.47)
Ln Labour productivity	0.060	0.239	0.095	0.114	-0.001
	(0.70)	(1.41)	(0.71)	(0.65)	(-0.01)
Types of dom. owner					
Individuals	1.120 ***	1.226 ***	0.414	0.509	0.232
	(3.49)	(3.46)	(1.26)	(1.19)	(0.49)
Other firms	0.344 **	0.452 *	0.174	0.157	0.072
	(2.17)	(1.72)	(1.05)	(0.80)	(0.53)
Other variables					
Fixed Assets	0.001	0.001	0.001	0.001	0.001
	(0.62)	(0.85)	(0.64)	(0.60)	(0.68)
Ln Fixed Assets to labour ratio	0.147 *	0.064	0.113	0.115	0.042
	(1.63)	(0.49)	(1.24)	(1.04)	(0.40)
Ln Fixed Assets to labour ratio-sq	-0.058 **	-0.061 ***	-0.023	-0.021	-0.007
	(-2.45)	(-2.91)	(-0.78)	(-0.65)	(-0.38)
Fix. Investment to fixed assets ratio	0.008	-0.097	1.020	0.964	0.015
	(0.60)	(-0.21)	(1.56)	(1.43)	(0.27)
St. Deviation of Profit	0.019	0.005	-0.010	-0.011	-0.002
	(1.37)	(0.34)	(-0.70)	(-0.56)	(-0.08)
Manufacturing sector	0.027	0.150	0.105	0.127	0.009
	(0.08)	(0.40)	(0.52)	(0.50)	(0.03)
Years since privatisation	0.470 **	0.481 ***	0.270 **	0.326 **	0.210 **
	(2.35)	(4.20)	(1.97)	(2.39)	(2.17)
Method of privatisation	-1.656 ***	-1.631 ***	-0.294	-0.206	0.285
	(-2.53)	(-3.71)	(-0.77)	(-0.46)	(1.06)
Corporate Conflict Index	-0.918 *	-0.842 *	-0.704	-0.743	-0.165
	(-1.59)	(-1.75)	(-1.18)	(-1.16)	(-0.35)
Constant	-1.572	-1.693 *	-1.374	-1.844 **	-1.653 ***
	(-1.01)	(-1.73)	(-1.59)	(-2.29)	(-3.23)
Instruments					
Ln depreciation	na	√	√	√	Na
Age of managers	na	√	√	√	Na
R-sq (not adjusted)	0.75	0.75	0.88	0.88	Na
Partial R-sq	na	na	0.20	0.20	Na
F test of excluded instruments	na	na	10.26 ***	5.62 ***	Na
Hansen J	na	na	2.72*	1.86	4.13
M1 [a]	na	na	na	na	-1.69 *
M2 [a]	na	na	na	na	-0.75
F or Wald test of overall significance	180.05 ***	18.01***	149.07 ***	156.88 ***	77.66 ***
No. of observations	201	191	191	191	201

Notes: t-statistics in parenthesis; * Significant at 10%; ** Significant at 5%; *** Significant at 1%. [a]M1 and M2 are tests for the first and second order autocorrelation of residuals.

In the first two estimation techniques (Random Effect and IV Random Effect) the results are very similar despite the fact that the first one treats performance as an exogenous variable. Apart from the lagged dependent variable there are a number of other significant variables such as the types of the dominant owners, capital intensity, years since privatisation,[18] method

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[18] 'Years since privatisation' is the only control variable, apart from the lagged dependent variable, that remains significant even in the GMM techniques. We did use interaction terms between this variable and other control

of privatisation, the standard deviation of profits (a measure of the volatility of the firm's environment) and the Corporate Conflict Index. These variables have the expected sign.

However, the results of these two procedures are not reliable due to their serious shortcomings: the estimates are biased because of the use of an endogenous variable; statistics are not heteroskedasticity and autocorrelation consistent; and it is not possible to test the validity of instruments for the IV regression.

Moving on to the two GMM regressions in third and fourth columns, these options are clearly superior to the first two models as they have instrumented the endogenous variable. However, the diagnostics (Hansen J statistic) show that the instruments are not exogenous or there is a specification problem. Furthermore, the test of endogeneity indicates that $LC1_{t-1}$ is also endogenous (in addition to the performance variable) and should be instrumented in order to produce consistent results. However, this is not possible because, given our limited data set, finding appropriate additional instruments for a second endogenous variable is very difficult.

The problem of endogeneity of the lagged dependent variable can not be resolved by using these techniques. In such cases dynamic panel data models may offer a solution. The Arellano and Bover (1995) technique generates the instruments itself according to the users' specification of the variables that should be instrumented and the lagged limits. In the 'default' position this technique uses a relatively large number of instruments which sometimes (especially when more than one variable is to be instrumented) approaches the sample size. Using more instruments in the GMM techniques increases efficiency but, according to Arellano and Bover (1995), the excessive number of instruments (compared to the sample size) in finite samples may bias the results. In estimating this model, we used the options available to reduce the number of instruments.

The Hansen J-statistic, which tests the orthogonality of instruments, is not significant, showing that instruments are exogenous and the model is correctly specified. There are two other tests, M1 and M2, which test for the first and second order autocorrelation of residuals. Lagged values (or differences) of dependent variables are used as instruments and therefore if the residuals are autocorrelated the instruments used are not valid. Hence M1 and M2 also test the validity of instruments (Mangan, et al., 2005). In the first test (M1), the null hypothesis (that there is no first-order autocorrelation) should be rejected if first-order autocorrelation is present, thus justifying the use of dynamic panel data models. In order for the instruments to be valid, the null hypothesis in the second test (M2) (that there is no second order autocorrelation) should be accepted. The diagnostic tests in the table indicate that instruments are valid, even though M1 is only marginally significant which may question the use of dynamics. As mentioned previously, in finite samples the large number of instruments may generate biased results and the user should reduce this number as much as possible (in our estimation process, 21 instruments have been used). However, there is no diagnostic to test the redundancy of instruments (whether the instrument has increased the efficiency of estimates or not) and help the user to specify the right instruments. This is an area needing further improvement.

Overall, the use of the dynamic panel data model opens new possibilities for the investigation of the determinants of the ownership structure especially for firms in TEs. The relationship between lagged values and the dependent variable (ownership concentration) could be strong

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variables in the model (firm performance, firm size capital intensity) but the results were similar to what is presented in Table 1.

in years after privatisation as we observe a significant evolution of ownership (in terms of concentration) of these firms 6 years after privatisation. However, the fact that both coefficients of lagged dependent variables in Table 1 are less than 1 (though close to 1), indicates that the model is stationary. In such models, according to Stewart (2005), the impact of a shock will be temporary. In other words this relationship may not be as strong (in terms of the size of coefficients) after 10 or more years as ownership of these firms and the markets in which they operate become more settled and stable.

The main difference between the models estimated in this section and those in previous studies is the use of the lagged dependent variable as an explanatory variable. The reason for its exclusion in previous studies has largely been the inability of researchers to deal with lagged dependent variable models. Although Arellano and Bond and Arellano and Bover developed their work in the last 10-15 years, this work is beginning to be used by applied economists only in recent years (e.g., Mangan, et al., 2005). As we have already pointed out this variable is significant in all the five regressions in Table 1 and therefore its elimination from previous studies is likely to have resulted in mis-specification of the model. If we exclude the lagged dependent variable from the estimations in Table 1, we would notice that: firstly, other variables become significant and, secondly, the overall explanatory power of these models is reduced (compare the R^2 statistics in Tables 1 and 4). These results are presented in Table 4 in the Appendix. Firm performance, e.g., becomes significant and positive in the second regression (IV Random Effect). Capital intensity (fixed assets to labour ratio), and/or its squared term, the privatisation method, and the corporate conflict index become significant in some or all of the regressions – as in previous studies. The essential point is that when econometric problems associated with previous studies are dealt with, and the model is specified properly, most of these variables become insignificant.

4.4. Sample Selection Bias

When the sample is not randomly drawn from a larger population, sample selection bias may arise. This means that standard estimators and tests may result in misleading inferences (Verbeek, 2000). In order to deal with non-responses or missing observations (which is an example of self-selection rule and a cause of selection bias) of different firms, we re-interviewed the firms in the sample until the missing observations were completed. However, according to Mátyás and Sevestre (1996), almost all samples based on interviewing micro-economic units suffer from some selection problems which are likely to be more serious in panel data.

There is a potential selection bias problem, discussed by Weiss and Nikitin (1998), concerning the relation between firm's performance and ownership composition. If during the privatisation process some types of owners were better informed than others about the performance of firms to be privatised, they would have been over represented in better performing firms. The majority of companies in our sample have been privatised through the Mass Privatisation Programme (MPP). During that process employees and ex-employees participated in the privatisation of more than 80% of companies. Indeed, in our sample employees are present as owners in 23 out of 45 companies, although they are dominant only in a few (3 firms in 1997). Also managers, who could have been better informed about the firms before the privatisation process, are dominant in only a small number of firms (4 in 1997).

Weiss and Nikitin (1998) proposed to use firm specific dummy variables or the initial ownership structure and changes in the firms' performance (instead of levels) in order to reduce the bias in estimated coefficients.[19] Given the small number of firms where employees and managers are dominant, we think that this particular selection bias is not a problem in our case. We did consider using the "growth", instead of the "level", of performance indicators but this reduced the number of observations with possible consequences for the robustness of the estimation process (because of reduced degrees of freedom).[20]

The firms in Albania had to meet certain criteria in order to be included in the MPP scheme: to be in operation, to have a good or reasonable financial performance, and not to be heavily indebted. However, not all firms that were privatised under the MPP scheme actually met these criteria. Financial problems, especially in the aftermath of the shock in 1997 made it difficult for many firms to survive regardless of their ownership structure. Some of them ceased production activities in order to use their facilities for more profitable purposes, again regardless of their ownership structure. We have to acknowledge the possibility of some selection bias as we are left with only 37 out of 97 mass privatised firms and are not able to explore the relationship between ownership structure and firm performance of firms that did not survive.

5. CONCLUDING REMARKS

The literature on the impact of ownership structure on firm performance in mature market economies has produced ambiguous results. This has been partly due to the recognition and inclusion of *benefits* as well as *costs* of ownership concentration and partly depending on whether or not ownership structure has been treated as an endogenous variable. In the context of TEs, in general, the literature seems to have been more conclusive. The absence (or weakness) of other mechanisms for corporate control seems to have left the primary monitoring role to ownership concentration. However, here, most studies have treated ownership structure as an exogenous factor in the investigation of its relation with firm performance. A number of studies have raised the issue of endogeneity and acknowledged its existence but have not dealt with it sufficiently. Some of these have used a 2SLS technique, and panel data sets, but still suffer from a number of shortcomings related to the validity of instruments and the treatment of heteroskedasticity and autocorrelation.

In this paper we investigate the evolution of ownership structure in a panel of privatised firms in Albania and demonstrate the role of the estimation technique used. In addition to the standard methodology using panel data techniques with or without the two stage least squares procedure, we use the more recently developed GMM techniques as well as the Arellano and Bover dynamic panel data technique to deal with endogeneity, heteroskedasticity and autocorrelation problems simultaneously. Another issue, which has not been received much attention in previous empirical studies, is the path dependency of ownership structure. This is especially important in TEs where institutions and legal protection of shareholders are weak and marked-based control mechanisms are not well developed. In this paper, we include a lagged dependent variable in the estimated regression.

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[19] They argue that the better informed buyers of shares of a company, were better informed about the level of performance at that time, but had no information how this performance will change.
[20] The diagnostics of the regressions using changes were poor, most probably due to the reduced number of observations.

We provide sufficient evidence to support the view that the evolution of ownership structure in the Albanian privatised firms is path dependent irrespective of the estimation method used. For the sample under consideration, there is also no statistically significant relationship between ownership concentration and firm performance, thus confirming Demsetz and Lehn and Demsetz and Villalonga's results. For other explanatory variables, although there are several significant variables with standard techniques, their significance disappears when we use more robust techniques which deal with the econometric problems mentioned earlier.

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APPENDIX

Corporate Conflict Index
The Corporate Conflict Index is constructed on the basis of the following 6 statements:

		1997-2000		2001-2002	
		1	0	1	0
1	The company has not paid dividends during the period.	Yes	No	Yes	No
2	The company arranged redemption of some shares.	Yes	No	Yes	No
3	The company sold some shares to workers.	Yes	No	Yes	No
4	The company arranged new share issues during the period.	Yes	No	Yes	No
5	There are shareholders owning more than 50% of shares.	Yes	No	Yes	No
6	More than two general shareholders meeting took place during the period.	Yes	No	Yes	No

The questions indicate the presence or absence of actual or potential conflict in the firm. Positive answers are assigned the values of one and negative answers the value of zero. The construction of this index is based on the work of Turuntseva, et al. (2004) though some of the questions were altered for our survey. The Corporate Conflict Index is a weighted average index with weights calculated as follows:
where p_k is the proportion of firms showing the k-th corporate conflict characteristic. The

$$w_k = \log \frac{1}{p_k}$$

reason for such weighting, as Turuntseva, et al. (2004) argue, is to apply higher weight to rarer situations (where p_k is small) which are associated with higher levels of conflict. The mean value of the index is 0.54 and the minimum and maximum values are 0 and 0.96 respectively.

Table 2: The description of variables used

Variables	Description
LC1	The share of the largest owner which measure ownership concentration. The logarithmic transformation of this variable from bounded to an unbounded is given in section 4 in footnote no.4.
LC3	The share of the largest three owners, which is another measure of ownership concentration.
Ln Labour Productivity	The natural logarithm of sales per employee ratio and is used as a measure of firm performance.
Individuals	A dummy variable equal to 1 if 'individuals' are the dominant owners and 0 otherwise. This variable is a measure of the types of dominant owners.
Other firms	A dummy variable equal to 1 if 'other firms' are the dominant owners and 0 otherwise. This variable is also a measure of the types of dominant owners.
Fixed assets	A measure of firm size
Ln Fixed assets to labour ratio	The natural logarithm of fixed assets to labour ratio and is used to measure capital intensity.
Ln Fixed assets to labour ratio squared	The squared term of Ln fixed assets to labour ratio.
Fixed investment to fixed assets ratio	The ratio of investments in fixed capital to fixed capital and is an indicator of the opportunities for discretionary projects by managers.
Standard deviation of profit	A measure of firm-specific risk. The calculation of standard deviation of profit and in each year is based on the figures of previous years. However, 1997 and 1998 figures are the same because we do not have any information for profit and sales of our sample firms before 1997.
Manufacturing sector	A dummy variable equal to 1 if the firm belongs to the manufacturing sector and 0 otherwise.
Years since privatisation	Number of years elapsed since privatisation of the firm.
Method of privatisation	A dummy variable equal to 1 if the firm has been privatised during the mass privatisation programme and 0 otherwise.
Corporate Conflict Index	An indicator of the presence of conflicts in the firm.
Ln depreciation	The natural logarithm of depreciation used as an instrumental variable to instrument firm performance.
Age of managers	The average age of managers of the firm and is also used to instrument firm performance.

Table 3: Determinants of ownership concentration (LC3$_t$)

Independent variables	Dependent variable: share of the largest three owners (LC3$_t$)				
	Random Effect	IV Random Effect	GMM with Kernel	GMM with cluster	Arellano & Bover model
LC3$_{t-1}$	0.205 **	0.189 ***	0.836 ***	0.816 ***	0.909 ***
	(2.27)	(5.59)	(10.35)	(9.24)	(9.44)
Ln Labour productivity	0.044	0.396 **	0.202	0.233	-0.175
	(0.64)	(2.30)	(0.90)	(0.76)	(-0.78)
Types of dom. owner					
Individuals	1.746 ***	2.005 ***	0.549 *	0.620 *	0.249
	(4.62)	(5.92)	(1.88)	(1.77)	(0.58)
Other firms	0.379 ***	0.587 **	0.150	0.097	-0.004
	(3.14)	(2.44)	(0.80)	(0.47)	(-0.02)
Other variables					
Fixed Assets	0.001 **	0.001 **	0.001	0.001	-0.001
	(1.88)	(2.19)	(0.03)	(0.12)	(-0.17)
Ln Fixed Assets to labour ratio	0.247 ***	0.022	0.013	0.006	0.123
	(3.22)	(0.18)	(0.16)	(0.05)	(0.72)
Ln Fixed Assets to labour ratio-squared	-0.056 ***	-0.062 ***	-0.021	-0.021	-0.026
	(-3.47)	(-3.33)	(-0.90)	(-0.76)	(-0.69)
Fix. Investment to fixed assets ratio	0.025	0.456	0.671	0.651	0.021
	(0.97)	(1.19)	(1.01)	(0.86)	(0.25)
St. Deviation of profits	0.008	-0.001	-0.008	-0.006	0.010
	(0.79)	(-0.06)	(-0.50)	(-0.30)	(0.37)
Manufacturing sector	-0.123	-0.114	0.192	0.245	0.080
	(-0.35)	(-0.28)	(0.90)	(0.94)	(0.43)
Years since privatisation	0.572 ***	0.558 ***	0.228	0.288 *	0.241 ***
	(3.03)	(4.52)	(1.60)	(1.93)	(2.13)
Method of privatisation	-1.496 **	-1.276 ***	-0.092	-0.033	-0.083
	(-2.20)	(-2.75)	(-0.26)	(-0.08)	(-0.10)
Corporate Conflict Index	-0.637	-0.490	-0.245	-0.201	0.111
	(-1.43)	(-1.10)	(-0.48)	(-0.36)	(0.21)
Constant	-1.524	-1.535	-1.155	-1.653 **	-1.565 **
	(-1.03)	(-1.48)	(-1.33)	(-2.09)	(-2.39)
Instruments					
Ln depreciation	na	√	√	√	na
Age of managers	na	√	√	√	na
R-sq (not adjusted)	0.70	0.71	0.90	0.92	na
Partial R-sq	na	na	0.16	0.16	na
F test of excluded instruments.	na	na	6.96 ***	3.80 **	na
Hansen J	na	na	2.645 *	2.080	2.85
M1[a]	na	na	na	na	-1.65 *
M2[a]	na	na	na	na	-1.18
F or Wald test of overall significance	326.70	18.40 ***	311.10 ***	257.72 ***	126.35 ***
No. of observations	201	191	191	191	201

Notes: t-statistics in parenthesis; * Significant at 10%; ** Significant at 5%; *** Significant at 1%.
[a]M1 and M2 are tests for the first and second order autocorrelation of residuals.

Table 4: Determinants of ownership concentration without a lagged variable

Independent variables	Dependent variable: share of the largest owner (LC1$_t$)			
	Random Effect	**IV Random Effect**	**GMM with Kernel**	**GMM with cluster**
Ln Labour productivity	0.364	0.893 ***	0.382	0.391
	(1.55)	(3.97)	(1.18)	(0.81)
Types of dom. owner				
Individuals	1.157 **	1.618 ***	2.642 ***	2.653 **
	(2.19)	(4.04)	(3.46)	(2.27)
Other firms	0.649 **	0.948 ***	0.496	0.500
	(2.42)	(2.75)	(1.26)	(-0.88)
Other variables				
Fixed Assets	0.001	0.001	0.001	0.001
	(0.60)	(1.38)	(0.78)	(0.61)
Ln Fixed Assets to labour ratio	-0.018	-0.304 *	0.483 **	0.476
	(-0.11)	(-1.75)	(2.18)	(1.46)
Ln Fixed Assets to labour ratio squared	-0.120 ***	-0.120 ***	-0.128 ***	-0.126 *
	(-2.64)	(-4.36)	(-2.63)	(-1.80)
Fix. Investment to fixed assets ratio	0.019	-0.583	1.226	1.210
	(0.88)	(-1.17)	(1.02)	(1.82)
St. Deviation of profits	0.020	-0.008	-0.109 ***	-0.110 **
	(1.26)	(-0.37)	(-3.61)	(-2.35)
Manufacturing sector	-0.032	0.101	-0.314	-0.316
	(-0.06)	(0.15)	(-0.80)	(-0.53)
Years since privatisation	0.498 ***	0.534 **	0.519 ***	0.518 ***
	(2.53)	(2.49)	(4.19)	(2.82)
Method of privatisation	-2.422 ***	-2.023 ***	-1.870 ***	-1.856 *
	(-2.67)	(-2.63)	(-2.62)	(-1.69)
Corporate Conflict Index	-1.348 *	-0.661	-4.242 ***	-4.253 ***
	(-1.78)	(-0.93)	(-5.22)	(-3.60)
Constant	-0.609	-1.368	0.227	0.341
	(-0.46)	(-0.77)	(0.36)	(0.26)
Instruments				
Ln depreciation	na	√	√	√
Age of managers	na	√	√	√
R-sq (not adjusted)	0.49	0.42	0.63	0.63
Partial R-sq	na	na	0.22	0.22
F test of excluded instruments	na	na	11.47 ***	5.43 ***
Hansen J	na	na	0.136	0.059
M1 [a]	na	na	na	na
M2 [a]	na	na	na	na
F or Wald test of overall significance	56.17 ***	6.34 ***	12.91 ***	6.11 ***
No. of observations	235	223	223	223

Notes: t-statistics in parenthesis; * Significant at 10%; ** Significant at 5%; *** Significant at 1%.

A GAME THEORETIC LENS FOR ADDRESSING CSR IN CENTRAL AND EASTERN EUROPE

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1. INTRODUCTION

1.1. Game Theoretic Approach

Businesses' corporate social responsibility (CSR) strategies and overall attitudes toward CSR are dependent upon a complex set of interactions with multiple stakeholders in a bargaining society. The decision by a business to engage in environmentally friendly production practices or to support community educational programs is not a decision made in isolation. Rather, such a decision is influenced by both internal and external stakeholders who often hold contradicting values and expectations. To study CSR practices related to community or environmental programs without accounting for these bargaining relationships would be unproductive. Therefore, one approach to better understanding and seeking progress in the area of CSR is to study CSR from a game theoretic framework which addresses the interwoven relationships between stakeholders.

Game theory seeks to explore and explain the interactions among interdependent decision making agents. If a given set of interactions among players can be adequately modeled then game theory can provide insight regarding the expected outcome of those interactions. This field of economics has provided a useful framework for analyzing issues ranging from business strategy to politics. However, few efforts have been made to develop game theoretic applications in the implementation and promotion of CSR. Recognizing the potential within game theory, this paper develops a game theoretic lens to view CSR and opens up a dialogue for further research and discussion.

Although there are a complex set of relationships with multiple stakeholders to model and analyze with regard to CSR, this paper will focus on the bargaining relationship most critical to a firm's success – the relationship between a firm and its customers. [1] Understanding this relationship in light of CSR can be beneficial for both policymakers and business managers who face a variety of barriers related to CSR implementation and promotion.

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[1] In surveys conducted in various CEE countries attempting to gain businesses' perspective on CSR, business leaders indicated that consumers represented their main stakeholder, often followed closely by employees. See the reports produced by Mazurkiewicz, Crown, and Bartelli for more detailed results and analysis.

In order to model the relationship between businesses and consumers, this paper will unpack two bargaining models: the two-person ultimatum game and the three-person ultimatum game. Then, using the Güth van Damme (1998) bargaining experiment and data collected from consumers and business leaders in CEE countries, the author of this paper will argue for the need to implement policies that will in essence change the game perceived by consumers from a three-person bargaining game to a two-person ultimatum game.[2] The underlying assumption of this approach is that if the rules of the bargaining game between businesses and consumers can be altered then the challenges and hesitations in promoting and implementing CSR could be more easily overcome. Before this hypothesis is fleshed out, however, some clarity must be brought to the concept of CSR.

1.2. CSR in Central and Eastern Europe

CSR is a somewhat ambiguous, if not misunderstood, concept due to the broad strokes in which it is painted by its various stakeholders. This is perhaps especially true in the transitioning economies of CEE countries who find themselves faced with CSR initiatives imposed on them from external stakeholders in a global marketplace, primarily driven by large, multinational companies.

In response to the European Council's appeal to companies' sense of social responsibility in March of 2000 (European Commission, 2001), an extensive CSR dialogue has been ongoing within the European Union and its member states. As this dialogue penetrates the transitioning economies of CEE countries, CSR is met with a certain amount of resistance due to the unique challenges of these economies - economies which are still adapting to market-based systems. In order to discuss CSR in the context of CEE countries it is critical to first lay down a working definition of CSR.

The European Commission defines CSR in *Promoting a European framework for corporate social responsibility* as "essentially a concept whereby companies decide voluntarily to contribute to a better society and cleaner environment" (2001). The simplicity of this definition provides a good framework to use in addressing CSR. However, two issues must be clarified and emphasised. First, for CSR to be implemented and sustained long-term, it must be voluntary. This emphasis on the voluntary nature of social responsibility does not neglect the need for outside influence, but instead points to the significance of external stakeholders in shaping corporate social responsibility strategy. Second, although CSR can focus on both internal and external stakeholders, this paper will address CSR in light of external stakeholders alone. More specifically, this paper will focus on community and environmental CSR practices which are traditionally viewed as falling outside of the normal operations of business. A focus on external stakeholders is significant in the context of CEE countries because CSR is most commonly associated with internal stakeholders in many of these countries.[3] Therefore, it is especially important to open up more discussion and study concerning CSR initiatives focused on external stakeholders.

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[2] The data used for this analysis comes from the work of Mazurkiewicz, et al. conducted in several CEE countries regarding CSR from consumer and business perspectives.
[3] According to a *Public Expectations for Corporate Social Responsibility* survey conducted in Poland in 2005 by Mazurkiewicz, et al., the top three "behaviors giving a social responsible image to a company" all related to employees. According to the survey, "respect for employees and good relations at work" was the single most important factor contributing to a company's socially responsible image.

2. BARGAINING THEORY

2.1. Introduction to Bargaining Theory

Bargaining, at its core, is a socioeconomic problem between two or more parties with conflicting interests whose cooperation could lead to the creation of a mutually beneficial surplus. The challenge, therefore, is in agreeing upon the allocation of the created surplus (Serrano, 2005). This basic bargaining problem is played out often within a variety of social, political, and economic venues. Socially, neighbors within apartment complexes implicitly reach bargaining agreements concerning appropriate levels of noise. On the political level, governments threaten sanctions and embargos in an attempt to reach a more favorable outcome concerning peace, economics, or human rights. Economically, the classic market interaction between buyers and sellers is an example of parties with conflicting interests who reach bargaining agreements when a purchase is made.

Prior to game theoretic solutions, such bargaining problems were classified as indeterminate by economists (Serrano, 2005). However, John Nash's (1950, 1953) foundational works in the early 1950s regarding bargaining established a formal bargaining theory which allowed economists to formalize positive predictions for bargaining problems. Critical to this bargaining theory, however, was the assumption of perfect rationality which means that all players are rational, all players know that all players are rational, all players known that all players know that all players are rational, etc. While this assumption is useful in developing abstract game theories, the assumption of perfect rationality creates serious challenges in the application of bargaining theory. Therefore, under the premise that humans have limited cognitive and information processing capabilities, experimental game theory emerged as a helpful subset within game theory. Based instead upon the assumption of bounded rationality, experimental game theory holds to the view that theories should be based on empirical findings rather than on abstract reasoning alone - especially since the empirical findings often contradict the abstract theories.[4]

Therefore, in an effort to develop a game theoretic approach to CSR, this paper will use the two-person and three-person ultimatum games along with the empirical findings unveiled in the Güth van Damme three-person bargaining experiment. Framing the CSR conversation under the auspices of game theory provides a unique way to address the challenges within the CSR dialogue. The following models are not intended (nor are they able) to capture all relevant aspects of the broader CSR debate. However, these models can provide a helpful framework to better understand the challenges faced in CEE countries in implementing and promoting CSR.

2.2. Two-Person Ultimatum Game

A two-person ultimatum bargaining game consists of a positive amount of money p which can be distributed between two players. The players include the proposer X, who first decides on his offer $0 \leq o \leq p$ to be allocated to the responder Y. The responder can accept the offer o, leaving the proposer with the allocation $p - o$, or reject the offer resulting in no payoffs for either the proposer or responder.

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[4] For example, in the simple two-person ultimatum game, orthodox game theory would predict an offer of 0 or nearly 0 to the responder. However, the empirical findings indicate an offer much higher, taking into account subjective variables such as altruism, reciprocity, etc.

If perfect rationality is assumed, the game theoretic solution for a two-person ultimatum game predicts that the proposer offers the smallest positive money unit and that the responder accepts all positive offers. This is based on the assumption that the positive offer o is always and everywhere preferred by the responder to the positive offer $o – c$ (where c represents the smallest monetary unit). Therefore, if the proposer offers the responder the smallest monetary unit c, the responder would always accept this offer because $c > c - c$.

However, according to the empirical findings of ultimatum bargaining experiments, responders reject positive offers o which are significantly larger than c in the range $0 < o < p/2$ if the offer is viewed as unfair (Güth, 2000). These results cause proposers to increase their offers, often as high as $o = p/2$.[5]

2.3. Three-Person Ultimatum Game and the Güth van Damme Experiment

The three-person ultimatum game again consists of a positive amount of money p which can be distributed among the three players - the proposer X, the responder Y, and the dummy player Z. The proposer chooses an offer o for the responder and an offer d for the dummy player. The responder can accept the offer o and the offer d for the dummy, leaving the proposer with the allocation $p – o – d$, or reject the proposed allocation resulting in no payoffs for all three players. The dummy player has no bargaining power in the game and can only accept the resulting agreement or disagreement reached by the proposer and responder.

In Güth and van Damme's (1998) bargaining experiment, $p = 120$ points (10 points worth 1 Dutch guilder, and in some cases worth 2). A minimal amount $m = 5$ points must be allocated to each player. Therefore, in the case an agreement is reached, the maximum payout for the proposer is $p – m – m$, or $120 – 5 – 5 = 110$ points. Once again, if perfect rationality is assumed, the standard game theoretic solution would be one in which the responder accepts all positive offers o, regardless of d, and the proposer would seek to maximize his payout by offering the minimally acceptable offers $o = d = m$. This outcome would result in the allocation, x = 110, y = 5, z = 5.

However, in an effort to test the hypothesis that players have "a strong intrinsic motivation for fairness," Güth and van Damme (1998) ran the experiment with three different information conditions and using constant and cycle treatment modes. In the xyz-condition the responder knows the full allocation of p, including both the offer o to him and the offer d to the dummy. In the y-condition, the responder is only aware of the offer o being made to him and can only assume that the offer d made to the dummy is $5 \leq d \leq (120 – o)$. In the z-condition, the responder knows only the offer d made to the dummy player and can only assume that his own offer is $5 \leq o \leq (120 – d)$.

Güth and van Damme (1998) arrived at five important regularities from their experiment. The first three of these regularities provide valuable insight into the current bargaining relationship between businesses and consumers and will be looked at in detail in section 3.4. The five regularities are as follow: 1) Proposals depend on the information condition, with the responder sometimes getting a large share; 2) The amount the dummy receives is in all conditions very small; 3) Some proposals are rejected, although a smaller proportion than

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[5] The empirical findings for a two-person ultimatum game are that the modal offer is 50% and offers under 30% are often rejected. This outcome holds true regardless of the absolute size of the surplus.

usually observed in the two-person versions of the game; 4) There is a learning trend; and 5) There are some differences across constant and cycle treatment modes.

3. APPLICATION OF THE GÜTH VAN DAMME BARGAINING EXPERIMENT TO CSR IN CCE COUNTRIES

3.1. Introduction

The traditional relationship between businesses and consumers has focused on the business offer in which consumers make purchasing decisions on issues of price and quality alone. This relationship is best modeled by the simple two-person bargaining game described in section 2.2 above. However, CSR-motivated companies are also able to offer consumers a social/environmental offer. This offer is the opportunity for consumers to pass along benefits to the community and/or the environment if the firm's products are used - regardless of price and quality. The nature of this bargaining relationship is dependent upon the attitudes and knowledge of consumers along with the general expectations consumers place on businesses (Mazurkiewicz and Crown, 2005). For instance, if consumers expect businesses to provide social benefits for local communities then a company's performance in this area would be factored into the purchasing decision along with price and quality and the game would resemble a simple two-person bargaining game. However, if consumers perceive social programs and environmental programs to be the responsibility of government rather than businesses than consumers will view such efforts by businesses as decreasing consumer surplus, resulting in either lower quality or higher prices. Hence, the relationship between consumers and firms in this scenario is a three-person ultimatum game.

In order to model the relationship between consumers and businesses in CEE countries with respect to external CSR practices, it is important to understand the attitudes and perceptions of consumers. Do consumers incorporate external CSR practices into their purchasing decisions or are these practices external to their buying decision? Although additional consumer surveys and research is needed in this area, detailed consumer research from Poland provides a valuable data set to conduct this analysis.

3.2. Evidence from Public Expectations Survey in Poland

In the second quarter of 2005, the World Bank Development Communication Division and the World Bank Warsaw Office, in association with the Polish Office for Competition and Consumers' Protection, conducted consumer research focused on consumer expectations for CSR in Poland (Mazurkiewicz and Crown, 2005). The general purpose of the research was to understand how and when consumers can become partners in the promotion of CSR. Specifically, the research sought to uncover if and when CSR is factored into the buying decisions of consumers. The researchers concluded from their study that Polish consumers "have not fully understood and articulated the concept of CSR as practiced in the rest of the EU" (Mazurkiewicz and Crown, 2005). To better understand this conclusion, the results from five of the questions posed to Polish consumers will be explored.

Question 1 – What are the three main behaviors giving a socially responsible image to a company?
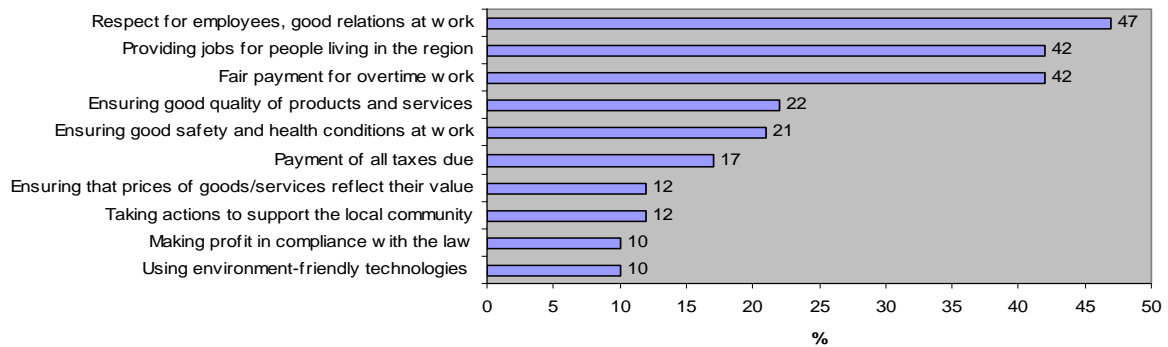
Figure 1. *The three main behaviors giving a socially responsible image to a company (only those with >10% of respondents' votes are shown).*

Of the top ten behaviors chosen by consumers, four relate to employees, two deal with traditional consumer issues of quality and price, two focus on complying with external regulations, and two address external social and environmental issues. These findings are an indication of the current level of understanding and knowledge regarding CSR issues by Polish consumers. The emphasis upon internal stakeholders and outside regulating agencies highlights a current perception among consumers that CSR relates primarily to the traditional operations of a business.

Question 2 – Should companies, in addition to their ordinary business, consider the needs or problems of the local community?
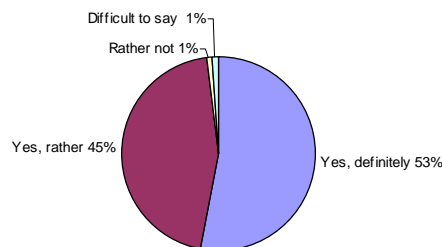
Figure 2. *Polish consumers' response to question 2.*

Question 3 – Should companies, in addition to their ordinary business, consider the needs of the environment?
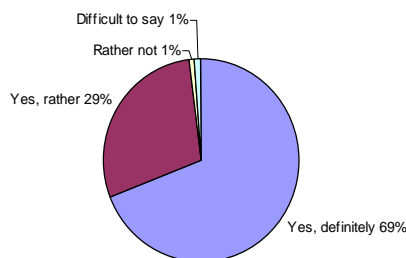
Figure 3. *Polish consumers' responses to question 3.*

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The results from questions 2 and 3 seem to contradict the findings from question 1. However, the reconciliation of these two sets of findings can be achieved in a better understanding of what consumers actually expect businesses to do to consider the needs of the local community and environment. When asked this question regarding businesses concern for the community, 36% of consumers thought that the best way for businesses to show concern for the local community was to provide job security. Therefore, despite consumers' desire to see companies engage in CSR related activities concerning the community and the environment, consumers' expectations for how this will be accomplished are related primarily to normal business operations – employment issues, legal compliance, and product value (price/quality).

Question 4 – What motives drive social and environmental responsibility of companies?
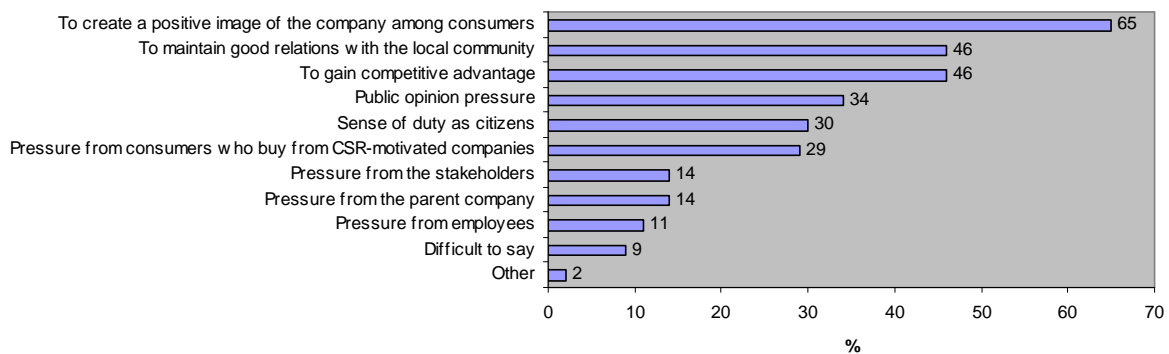
Figure 4.   Polish consumers' responses to question 4.

Based upon the results from question 4, it would seem that consumers believe they have the ability to influence businesses actions regarding CSR. In fact, 65% of consumers indicated that the single greatest reason a company engages in social or environmentally friendly practices is to create a positive image among consumers. The greatest long-term insight from these results is the potential for government to partner with consumers in promoting CSR practices since consumers believe they have the ability to influence businesses. However, the immediate results of this survey question point more to the reality that consumers view CSR as primarily a public relations strategy rather than as core to the business' operational strategies.

Question 5 – Would you like to have more information of CSR practices of Polish enterprises?
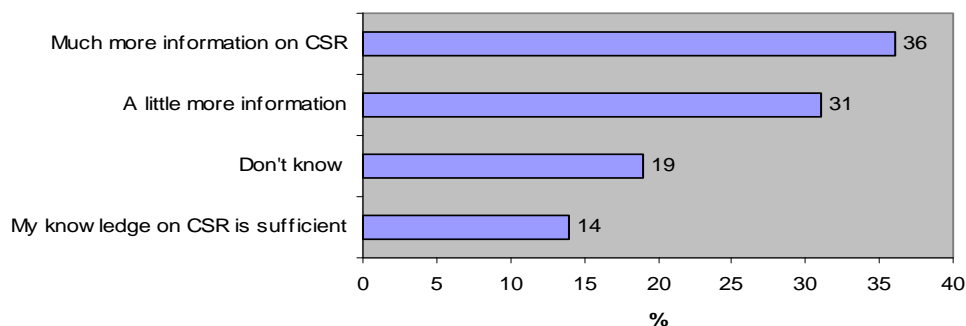
Figure 5.   Polish consumers' responses to question 5.

The fact that only 14% of all consumers interviewed indicated their knowledge regarding CSR is sufficient points to a general lack of understanding and knowledge among consumers about CSR practices of Polish businesses. If consumers lack knowledge regarding CSR practices than it is nearly impossible for consumers to factor CSR into buying decisions.

According to these findings, the bargaining relationship between consumers and firms most resembles a three-person bargaining game when considering externally focused CSR. In essence, consumers view external stakeholders as the dummy player Z in a three-person bargaining game and therefore seek to minimize the payouts to the dummy player Z and proposer X (the firm) while maximizing their own payout (responder Y). The bargaining relationship between consumers and businesses is viewed as a three-person bargaining game primarily because consumers lack sufficient knowledge concerning businesses' CSR practices and because consumers' attitude towards external CSR practices is that such practices fall outside the scope of a business' primary operations. Even though consumers indicate a desire to see businesses concerned for the community and the environment, such efforts by businesses are only rewarded if they fall within the normal operating activities of business defined by consumer expectations.

3.3. Conclusions Drawn from the Güth van Damme Bargaining Experiment

Given that the relationship between consumers and firms in light of external CSR initiatives can be modelled as a three-person bargaining game, the regularities described in the Güth van Damme experiment may provide insight into this relationship and the expected CSR outcomes. Therefore, the first three regularities posited by Güth and van Damme will now be analyzed and applied to CSR in CEE countries.

Regularity 1 – Proposals depend on the information condition, with the responder sometimes getting a large share.

In a traditional two-person bargaining game in which consumers make purchasing decisions on issues of price and quality alone, businesses use price as a signal for how the surplus is being divided between the firm and the consumer. However, because buyers do not typically know the cost pressures faced by the firm, price is not always an accurate measure of a firm's altruistic behaviour in dividing the surplus (Rotemberg, 2006). With the added emphasis on CSR, businesses are now able to signal altruistic behaviour through explicit CSR practices that focus on the local community and/or the environment. Therefore, consumers are able to factor in both price information and CSR practices when deciding whether to accept or reject the overall offer.

However, if consumers do not value such external CSR practices (as indicated in part by the consumer survey in section 3.2) then the relationship resembles a three-person game and the businesses' CSR practices represent a signal by the proposer of a larger offer to the dummy player Z. Despite the desire among consumers for firms to be concerned for the community and environment, if the business engages in an activity which is not part of traditional business operations (as expressed in section 3.3, question 3) then the business is sending information to consumers which has little if any value.

As long as consumers believe they are receiving a fair price/quality offer then they care very little about the social offer being made to the community. In essence, the response by consumers in section 3.3, questions 2 and 3, implies that they believe businesses should

engage in community and environmental work, as long as this work does not infringe upon their price/quality offer. This attitude on the part of consumers provides a disincentive for businesses to engage in potentially costly CSR programs.

In line with this conclusion, a survey conducted in Serbia and Montenegro in 2006 concerning businesses perspectives about CSR revealed that following tax incentives and regulatory requirements, recognition by consumers is the single greatest action that could improve CSR practices (Mazurkiewicz et al., 2006). A similar survey in Poland also revealed that second to tax incentives, businesses believe that recognition by stakeholders can greatly improve CSR practices. (Mazurkiewicz et al., 2005).

Regularity 2 – The amount the dummy receives is in all conditions very small.

If consumers continue to view external CSR practices as offers to the dummy player Z, then it will be to businesses' advantage to minimize the offer to the dummy player by minimizing external CSR practices. This does not mean that businesses will not engage in any external CSR efforts; but rather, this prediction implies that businesses will only seek to maintain some minimum level of community and environmental efforts. After all, in a three-person bargaining game, a higher offer to the dummy player is often achieved via a lower payout to the proposer rather than decreasing the responder's offer. Therefore, regardless of what information the consumer has regarding price, quality, or CSR practices, businesses will be inclined to minimize the amount of surplus offered to social benefactors via community or environmental projects.

Some of the strongest evidence for this conclusion rests in the following survey question which Mazurkiewicz (2005, 2006) and his team asked businesses in various countries throughout CEE - What are the greatest risks in adopting CSR practices? Businesses in Poland, Hungary and Slovakia revealed that the top two risks associated with adopting CSR practices are increased operating costs and adverse impacts on profitability. Serbia and Montenegro, Estonia, Latvia and Lithuania all agreed that the single greatest risk in adopting CSR practices is increased operating costs.

These results from several CEE countries line up with the conclusions drawn from the Güth van Damme bargaining experiment. Companies perceive their payouts in a three-person bargaining game to be at risk since the added costs of CSR practices can not be passed along to consumers who do not value external CSR practices as a component of their purchasing decision. As long as the consumer environment remains one in which external CSR practices are viewed as the dummy player in a three-person bargaining game, businesses will continue to engage in the minimum level of CSR practices their business environment will allow.

Regularity 3 – Some proposals are rejected, although a smaller proportion than usually observed in two-person versions of the game.

Rejection rates for two-person ultimatum games are generally around 15 to 20 percent (Bolton and Ockenfels, 1998). However, in information conditions xyz and y of the Güth van Damme game, rejections rates are significantly lower at approximately 4 percent. The reason for this observed behavior seems to deal more with the offers made by the proposer than the actions of the responder. In the two-person ultimatum game, proposers are willing to make offers between 0 and $p/2$, with a greater rate of acceptance occurring at rates closer to $p/2$. However, in the three-person Güth van Damme game, proposers know that responders will

likely reject any offer below *p*/3 and therefore make most proposals between *p*/3 and *p*/2, offers which are generally more acceptable to responders.

Regularity 3 implies that in a three-person bargaining game between businesses, consumers, and external benefactors, businesses will tend to offer higher price/quality offers to consumers than they would in a two-person bargaining game in which consumers take into consideration external CSR practices into their buying decisions. In essence, if consumers do not value external CSR practices as critical to purchasing decisions, then firms must entice consumers to buy by offering a higher price/quality value package. Therefore, even though there are fewer rejections in three-person bargaining games, the underlying result for the business may actually be worse than in a two-person bargaining game because of the higher offers required in the three-person game. In the current environment, businesses are required to appease both the high expectations of consumers as well as the growing expectations of regulating agencies concerning CSR.

The pressure faced by firms in this scenario can be expressed by their desire to receive some type of tax incentive in order to carry out additional CSR practices. Again, turning to the surveys conducted in Poland, Serbia and Montenegro, Hungary, and Slovakia, the single greatest factor which could improve CSR practices according to businesses is tax incentives. Although businesses are always seeking tax incentives, the strong insistence upon tax incentives in this scenario implies that businesses are unable to meet the high expectations of consumers as well as meet the growing expectations for CSR practices and remain profitable.

3.4. Areas of Further Study

Although much research has been carried out in the past two years concerning businesses' perspectives on CSR, more research needs to be conducted in the area of consumers' understanding and expectations among CEE countries. If consumers are considered a valuable stakeholder in encouraging CSR then more research must be conducted to uncover current perceptions (and misconceptions) among consumer groups.[6] Specifically, research should focus on ascertaining insight into the following critical issues:

- Consumers' understanding (level of knowledge) of internal and external CSR practices

- Consumers' evaluation of businesses' CSR behavior in their purchasing decisions

- Main information sources about CSR and the impact of these sources

Given the framework developed in this paper, it may be of value to also research the bargaining relationships between various other stakeholders concerning CSR practices to uncover any effects these relationships have on a businesses' motivation to adopt CSR practices. Of particular interest is the relationship between a business and its employees, with respect to external CSR practices targeted at environmental or social programs.

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[6] The methodology employed by Mazurkiewicz and the Polish Office for Competition and Consumers'
Protection in surveying consumers' expectations provides a good framework to use in other CEE countries, or
even on a smaller framework in cantons or municipalities.

4. CONCLUSION

4.1. Need for a Game Change

Given the current consumer environment in which external CSR practices related to community and environmental projects are not factored into purchasing decisions, businesses have disincentives to engage in external CSR practices. In order to encourage CSR among businesses in CEE countries, policies must be implemented which, in essence, change the bargaining game from a three-person game to a two-person ultimatum game. This can be done, at least in part, by changing the knowledge level and attitudes of consumers concerning external CSR practices. If consumers begin to expect firms to engage in environmental and community projects, and reinforce their expectations in their purchasing decisions, businesses will be forced to rethink their business and social offers.

Although the purpose of this paper is not to develop policy, the conclusions from this analysis can be helpful in shaping policy that can lead to the adoption of external CSR practices by businesses in CEE. The use of a game theoretic lens in addressing CSR reveals that the challenge is not simply in encouraging businesses to play the CSR game, but rather, the challenge is to change the game entirely.

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INCREASING PRODUCTIVITY OF SME IN THE CZECH REPUBLIC

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Small and medium enterprise (SME),
European Social Fund.

1. INTRODUCTION

1.1. The best practices of enterprises – share or not to share

Increasing productivity of all economic activities (both in private and public sectors) can help increase the living standards in the whole society. One of the many ways how to get to this aim is to share the best practices of individuals, groups, enterprises, regions, even on the national and international level. The best practices of some subject testified in its specific conditions form one important part of its knowledge potential and it seems to be relevant not to share them with other subjects. It can be one of the firm's competitive advantages. Subjects will share their knowledge including the best practices only if:

- Their practice cannot be protected by specific law instrument (patent, license etc.) and can be quite easily copied;

- The subjects suppose that sharing knowledge with other subjects can help them to solve their specific problems (to learn something useful);

- Sharing knowledge can help their business partners (including potential partners) to increase their productivity and offers better services for lower prices (network effects);

- Sharing knowledge must not worse market conditions and competitiveness of the subject.

The relations of economic subjects are both competition and cooperation – sharing the best practices is one of the forms of cooperation.

Vodacek, Vodackova (2002) systemize specific forms of cooperation of subjects: informal agreements - including sharing "free knowledge (the best practices)"; strategic alliances including sharing specific knowledge (the best practices); joint ventures; mergers and acquisitions.

Nowadays economy is based on network relation; most of the relations is not between two subjects but much higher number of subjects. Networks of economic subjects are very dynamic both on the regional platform (clusters etc.) and the international and global level. The subjects need to share their knowledge to be more effective. All forms of cooperation can be temporary and all the cooperating subjects can be potential or real competitors.

Historical experiences say that the worst competitive attacks we have to expect from the closest related subjects because they know our weaknesses better that the others. That means: let us cooperate and share the best practices, but let us be one step ahead.

1.2. Best practices of enterprises – barriers to the flow of knowledge within the firm and across the networks

Knowledge assets are embedded in firm routines and their replications are quite problematic (Nelson and Winter, 1982). The research indicates that there are substantial barriers to knowledge transfer that make knowledge transfer difficult within the firm (Leonard, 1995; Szulanski, 1996; Knott, 2003). Szulanski (1996) suggests that the major barriers to intra-firm transfer of knowledge (best practices) include: lack of absorptive capacity on the part of the recipient of knowledge; lack of credibility on the part of the source of knowledge; lack of motivation on the part of "source" or "recipient" and casual ambiguity (due to the complexity of knowledge).

The specific problem is sharing the knowledge in networks of suppliers and buyers. Internal routines of a firm or production capability may, to some extent, be contingent on inter-organizational routines which constitute the network context linking the firm's production system to system of its customers and suppliers. According to this logic, it may be possible for a buyer to exploit its knowledge assets by sharing them with suppliers in return for lower cost and/or higher quality inputs (Dyer and Hatch, 2006).

The automotive industry offers a useful research setting to test these ideas. To be effective; these complex production routines need to be adopted as a bundle of routines (MacDuffie, 1995; Milgrom and Roberts, 1992). The difficulties with adopting a complete bundle of best practices represent the key problem why network resources are not easily imitated. To solve the complicated puzzle of creating network resources, Toyota has established a supplier association and consulting team with the explicit objective of creating network resources. Supplier association facilitates knowledge sharing within the network by organizing monthly meetings (Sako, 1996).

Dyer and Hatch (2006) tested two hypotheses:

- The quality of supplier's product for a particular customer will be higher when the supplier has received knowledge transfer from the particular customer.

- The productivity of supplier's operations for a particular customer will be higher when the supplier has received knowledge transfer from the particular customer.

The results of their 6-year research in automotive industry support these hypotheses. Their research identifies the barriers to knowledge transfer, too. Dyer and Hatch (2006) presents a model of barriers to intra- and interfirm knowledge transfer - see Figure 1.
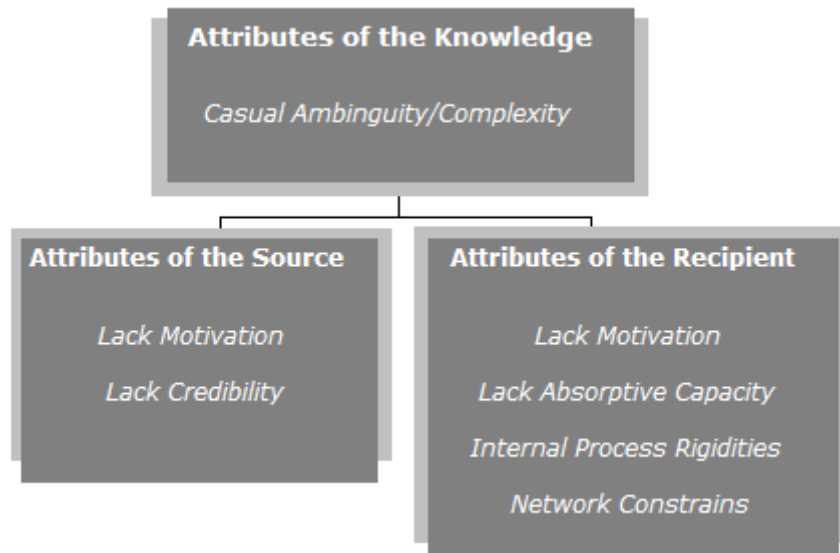
Figure 1   Barriers to knowledge (best practices) transfer

The economic subjects can share the best practices and it can help them to increase their efficiency, but they should analyze the real barriers inside the enterprises and the network constrains before they start the process of searching and adopting the best practices from the other economic subject.

1.3. Transfer of knowledge (the best practices) as development of human capital of the firm

Measurement of human resources and bundles of best practices is a specific question. Berk and Kaše (2005) argue that most of the empirical research are focused on different ways in which HR practices contribute to contemporary labor productivity and consequently to current financial performance. Efficiency and effectiveness of HR practices are usually tested for short-term effects.

Learning organization (Senge, 1990) and knowledge-based firm are challenges of the beginning of the 21st century. The new paradigm involves new questions and new tasks. We speak about human capital of the firm and its development, but who is owner of the capital? Where is the border between individual development and learning of the firm as a complex? Speaking about the learning development inside a firm, can we say the same about the transfer of knowledge and learning development across the networks, or even across the whole society (on the national principals, the territory principals etc.) towards learning society?

This contribution can not answer such range of complex questions. The foundation for specific research activities was set by the involvement of Tomas Bata University in Zlin (UTB) in the Europe Union projects of human resource development. Tomas Bata University

in Zlin managed to win a new project within the framework of the Operational Programme for Human Resources Development, measure 3.2 "Support for tertiary education, research and development" for the years 2006 - 2008. Faculty of management and economy won a project for Creating and Testing of a New Programme for Further Education at Universities entitled Work Smarter. Brno University of Technology, Faculty of Business and Management is partner of the UTB in this project. The Operational Programme is financed by the European Social Fund (ESF), one of the EU Structural Funds, and by the state budget of the Czech Republic. The territory of the Czech Republic is qualified for Structural Funds assistance as the less well-off regions of Europe with the exception of the NUTS II region Prague and ESF co-finances development programmes here.

The mission of this project is to bring up and enforce innovative approaches and methods in Human and Resource Development (HRD) in the Czech small and medium enterprises, to create a "learning environment" and to exercise the concept of lifelong learning in day-to-day practice of our enterprises.

The project analyses and monitors the information and methodological needs in HRD in SME. One of the essential activities is promotion and awareness in lifelong learning. We need to increase the level of further education systematically, particularly managerial and entrepreneurial development and training. Application of principles and mechanisms for quality assurance and assessment in HR management and development in enterprises is very important for this pilot project.

The strategic aim of HRD in the Czech Republic is to enhance competitiveness of national manpower on the international labor market, to increase employment, adaptability and flexibility of the labor force and to improve competitiveness of the Czech companies and national economy. This project contributes to fulfill this aim.

The first part of the project was focused on the research of the needs of the enterprises and their employees in HRD and this contribution analyses the first results.

This contribution focused on the effort to answer the question which topics of "free shared best practices" are demanded by firms and employees. The contribution supposes the motivation of all participants of the knowledge transfer, absorptive capacity on the recipients' part, credibility of the source firms.

2. METHODOLOGY

2.1. Secondary research – changes in structure of employment in the Czech Republic

For the purpose of complex understanding the foundations of the primary research in the Czech enterprises, we have to describe the macroeconomic development and actual situation in the Czech Republic.

The Czech Republic is a transitional economy, governed by its inheritance from its socialist past, which is changing more or less successfully to a free market. Macroeconomic policies are focused on controlling inflation and the Czech Republic is successful since 2000 to fulfil the Maastricht criteria for financial stability. On the other hand the situation of public finance

is not optimistic and the state budget deficit is growing very rapidly, as it has been appointed out by the IMF.

The transformation on the microeconomic level was even harder. The transformation of ownership through privatization was specific in the Czech Republic and we can speak about 2 waves at least. In 1992-1993 the first wave of voucher privatisation and division of federation to two separate countries, the Czech Republic and the Slovak Republic, completed both the political and economical separation of two specific parts of the federal state on the national principals. Both countries developed separately then but in close cooperation, especially on the labour market. The Czech Republic passed political and economic crisis in 1997 that led to the strategic decisions of the government about privatization of biggest banks and financial institutions. The changes in a bank sector, which is a typical capital distributor in Central and Eastern Europe (CEE) because of week stock exchange system, opened completely new situation on the labour market – privatisation in the bank system fastened changes in the micro economic sphere and the unemployment rates grew fast as well. The influence of direct foreign investments flow was very important that time – it helped the economy to keep the balance of payments and create new work opportunities.

The Czech Republic has high levels of employment in traditional manufacturing sectors, including engineering. But the structure of the economy is more diversified: manufacturing forms 13 % of the registered businesses and there are 920 enterprises with more than 250 employees there; agriculture forms 5 % of registered businesses, but there are only 45 enterprises with more than 250 employees there. Construction forms 11% of registered business and there are 75 enterprises with more than 250 employees there. Wholesale and retail trade forms 28% of registered businesses and there are 150 enterprises with more than 250 employees there.

The sector of services is growing up but its share on the gross domestic product is not as high as we wished. The growth in hotels and restaurants was 1, 7 % in the 3rd quarter of 2006. Post and telecommunication growth was only 0, 3 %, sales in computer and related activities was 10, 8 % at the same period according to the news release of the Czech Statistical Office. In the long term, the fastest growth of the sales was recorded in the recruitment on the labour market and provision of personnel (24, 6 %).

2.2. Primary research – empirical research of the needs of training in Czech enterprises

The primary research reflects the macroeconomic development in the Czech Republic described in chapter 2.1. The main developing sectors in the Czech Republic are manufacturing and business services. Tomas Bata University research team prepared list of 50 relevant training areas and discussed the topics in several workshops with top managers of Czech industry and service leaders. The primary research was prepared and the research was done with randomly chosen employees from the whole Czech Republic during one month 2005. To compare the results with opinions of university students we prepared parallel research with relevant number of students of Faculty of Management and Economics in Zlin. Both researches were organized at the same time and strictly the same conditions to eliminate possible distortions.

One of the aims of the research was to identify the prospective contributions of the training of the specific topic to the development of the individual employee and the prospective contributions to the development of his firm. The research team in cooperation with top

managers divided the topics to several groups and classified them using the scale: 1 – contribution only for an employee (firm is not able to use it for its purpose); 2 – more contribution for an employee, less for his firm; 3 – contributions of the training are equal for an employee and his firm; 4 – more contribution for the firm, less for an employee; 5 – contributions only for the firm (an employee is not able to use it for his private purpose). The results of this part of research can clarify the interests of employees of specific topics and describe the equilibrium of interests of the firm and its employee.

3. RESEARCH OF THE NEEDS OF ENTERPRISES IN HRD

In cooperation with the top managers of six successful and well-known Czech enterprises we prepared list of 50 important areas that can help the enterprises to increase their competitiveness and market success. The first task for the research team in cooperation with the top managers was: to choose 30 most important topics for the training of employees of the Czech enterprises. The other task was to compare the demand for these educational topics presented by top managers of enterprises with the choice of the employees of Czech small and medium enterprises.

The research examined opinions of the Czech employees from different branches of the economy throughout the whole territory of the Czech Republic. The average age of the respondents was 27 years; half of the respondents were women; all the respondents finished high school education.

Table 1 TOP 10 topics recommend by the group of employees for a successful career

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      1. Self-management, asking where I am, where I want to go.
      2. Personal time management.
      3. Keep improving.
      4. Planning.
      5. Make decisions from the point of view of the future, not the past.
      6. Fight the stereotypes; do not lose the self-motivation.
      7. Build your personal relationships.
      8. How to motivate other people.
      9. Successful negotiation.
      10. Do you understand the view of other people?

_____

The research shows the emphasis on the soft skills of an employee, the needs of psychological approach more than the need of hard skills such as involving the principals of lean production, TQM, best practices in logistics and other topics, that recommended the top managers in the first brain storming that brought the list of the best practices increasing the competitiveness of SME on the market. The different expectations of the topics and contributions of further learning from the point of view of employers and employees seems to be dangerous and can threaten the results of learning process. The conclusion for the next steps of the project is to harmonize the needs and expectations of the employers and employees before preparing the e-learning modules for the specific topics that show the best practices in the Czech enterprises.

To compare the opinions of employees the research team put the same task to the University students preparing for their careers in enterprises – average age of respondents was 20. The results were different.

Table 2 TOP 10 topics recommended by the group of students

_____

1. Keep improving.
2. Build the good will of your firm.
3. Forecast the future.
4. Planning.
5. "Sell" your good results; measure your success.
6. Do not make mistakes.
7. Build your personal relationships.
8. Self-management, asking where I am, where I want to go.
9. Successful presentation.
10. Make decisions from the point of view of the future, not the past.

_____

The specific aim of the primary research was to identify the prospective contributions of the training of the specific topic to the development of the individual employee and the prospective contributions to the development of his firm. The research team in cooperation with top managers divided the topics to five groups and classified them using the scale 1–5.

The chosen 30 topics were set to 5 groups.

Table 3 Division of the offered topics into groups

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1 – Contribution only for an employee (3, 3 % of topics);
2 – More contribution for an employee, less for his firm (13, 3 % of topics);
3 – Contributions of the training are equal for an employee and his firm (20 % of topics)**;**
4 – More contribution for the firm, less for an employee (26, 7 % of topics);
5 – Contributions only for the firm (36, 7 % of topics).

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Most of the 30 offered training topics identify prospective contribution for the firm and partly for the employee. This division of topics reflects the efforts of the managers to support the aims of the firm and the private motivation of the employee is not important from their point of view.

On the other hand we can discuss the effectiveness of the employee education in the situation, when he is not motivated to learn the best practices and use them in his work.

The following Figure 2 recorded relative numbers of chosen topics of two groups of participants of the research – each respondent chose 10 favorite topics. The first curve describes the relative numbers of offered topics and we can compare it with the reaction of

respondents - the second curve describes the employee's choice of topics, the third curve describes the student's choice of topics.
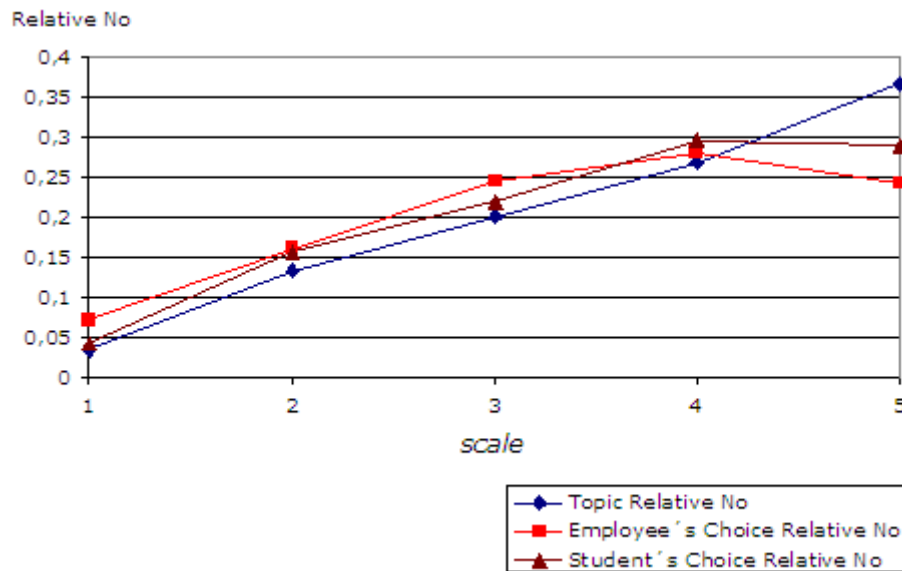
Figure 2   Employee's choice of training topics according to the scale of contribution to the individual and the firm (1 – contribution only for an employee; 2 – more contribution for an employee, less for his firm; 3 – contributions of the training are equal for an employee and his firm; 4 – more contribution for the firm, less for an employee; 5 – contributions only for the firm), compared with the choices of a student group.

We can interpret the results of the research as follows.

Table 4 Average employee portfolio of chosen topics

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      7 % of topics develop their personal knowledge (they were not offered more);

     16 % of topics develop more their personal knowledge and less contribute the development of the firm (they were not offered more);

     25 % of topics develop both the individual and the firm knowledge;

     28 % of topics develop the firm knowledge and less the individual knowledge;

     24 % of topics develop only the firm knowledge.

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We can compare these results with the division of the offered topics in Table 3. The employees preferred the topics from the groups 1, 2, 3 and 4. The number of the chosen topics from the group 5 was rather low (compare 37, 7 % of offered topics to 24 % of chosen topics).

We can compare the results of the employee group with the group of students - Table 4 we compare with the average student portfolio recorded in Table 5.

Table 5 Average student portfolio of chosen topics

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4 % of topics develop their personal knowledge;

16 % of topics develop more their personal knowledge and less contribute the development of the firm (they were not offered more);

22 % of topics develop both the individual and the firm knowledge;

29 % of topics develop the firm knowledge and less the individual knowledge;

29 % of topics develop the firm knowledge without any contribution to the individual knowledge development.

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The results of this part of research show the preferences of employees – they prefer the topics that can help their personal development. They accept the needs of the development of the knowledge of the firm in scales 3 and 4, but their willingness to develop the knowledge capacity of their firm in the specific topics such as logistics, quality, lean production etc. sorted in the scale 5 is rather low. They were offered 11 topics (37, 7 %) with the highest contributions for their firm, but they chose them as a part of their training portfolio only in 24%.

The results of the student group are similar, only their willingness to learn and train the topics important for their potential employer is a little higher (29 %).

The research shows that the University students are less egocentric in the first topics; they prefer the enterprise point of view to self-development of the employees. On the other hand they undervalue the topics of the lean production, maintenance, quality and logistics, as well as the employees.

Both researches give us new information and we can do the recommendations for the next steps towards effective and valuable learning programme for further education increasing the productivity in the Czech small and middle enterprises. We know the most demanded topics for the training of employees balanced on the recommended topics chosen by the top managers of successful firms. The results of the research have shown the importance of motivation of the employees towards accepting the aims of development of knowledge of their firm as their own aims.

4.   CONCLUSIONS

The transfer of knowledge (the best practices) as development of human capital of the firm is important as the cooperation of the research team with top managers of the Czech successful

enterprises has confirmed. The workshops helped to create the list of 50 important topics for training of employees. The following selection has chosen 30 core topics and they were offered to employees of randomly chosen small and medium enterprises. The research with employees affirmed that such training is possible and the employees accepted most of the offered topics as contributing both the firm knowledge development and their individual development.

The research was focused on the barriers on the recipient's part; especially the potential lack of motivation and the lack of absorptive capacity (see Figure 1). The results of the research confirmed that the motivation of employees is conditioned by the possibility of potential contribution of the training (transferring best practices) for their individual development. The contributions only for the development of the firm knowledge capital are not sufficient for the employee's motivation.

Specific questions about the transfer of knowledge are on the source side – the first contacts with the successful firms "working smarter" that are able and credible enough to transmit their "free knowledge" to the recipients confirm the expectations of the research team that these firms have enough motivation to offer their experiences "free of charge" to the other enterprises in the economy. This part of the research needs specific methodology and independent research activities which are not presented in this contribution.

The fundaments show that people are greatest assets of every enterprise. These people need the right knowledge, skills and motivation to work efficiently. But we have to ensure the investments to the staff are making difference; the investments to their education lead to the results we desire. It is the last part of our continuing research and the results will be presented in special contribution.

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CORPORATE PHILANTHROPY IN THE CZECH AND SLOVAK REPUBLICS[1]

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Abstract

This study explores corporate philanthropy in the Czech and Slovak Republics–the determinants of corporate charitable behavior and their underlying motivation. It is the first quantitative study for transition economies, analyzing data from two surveys for 577 and 162 firms over three (2001-2003) and five (2001-2005) years in the Czech Republic, and for 152 firms over four years (2001-2004) in Slovakia. It is the first study that distinguishes different channels of support, namely, sponsoring and giving.

The results show that corporate charity in both countries is motivated by maximization of managers' utility, rather than maximization of profit. The study fails to find a difference in the motivation for sponsoring and giving, but documents differences in their use by firms. It fails to support the usual claim that foreign firms give more than the domestic ones. It identifies a significant difference between the two countries: Slovakia lags behind the Czech Republic, its giving is smaller, the importance of large and international firms is higher, and small companies behave more in an ad-hoc manner. Importantly, the study fails to identify any significant decline in giving in Slovakia in 2004, contrary to the expectations resulting from the radical changes in its tax legislation, though it shows that foreign-owned firms shifted their support from giving to sponsoring. In addition, while participation on philanthropy has been steadily increasing in the Czech Republic, it has remained stable in Slovakia.

1. INTRODUCTION

In this work we study corporate philanthropy in the Czech and Slovak Republics, focusing on corporate financial contributions, exploring giving patterns and the impact of changes in the tax rates. The present analysis is the first quantitative study in transition countries. It compares two transition economies with a long common history but divergent recent evolutions, among other things in the legislation governing corporate giving, which can be expected to translate into significant differences in the philanthropic behavior of firms.

The existing quantitative economic studies of corporate charitable behavior all focused on developed economies such as the U.S.A. (e.g., Trost, 2005; Boatsman and Gupta, 1996; Navarro, 1988) or Great Britain (Brammer and Pavelin, 2005; Campbell et al., 2002). None of the existing studies of corporate charitable behavior in transition economies (e.g., Russia: King and Tchepournyhk, 2004; Ukraine: Ilko, 2004) includes quantitative data analysis. The major problem of this unsatisfactory state of affairs is the lack of data and difficulties related to their collection.

The situation in the Czech and Slovak Republics is symptomatic: even though several studies of corporate giving were conducted in the Slovak Republic (NDS, 2005; Velšic, 2004; Marček and Dluhá, 2002) only one of them asked to specify the donated amounts. Nevertheless, the sample is small: 107 responses for one year, 2001 (Marček and Dluhá, 2002). The only study for the Czech Republic is a survey conducted by Donors Forum[2] in 2004 (DF, 2004). In the present work we use these data (for the Czech Republic) and extend them with data that a market survey company collected on our behalf in both the Czech and Slovak Republics.

The present study is the first one that distinguishes between sponsoring and giving, two tools corporations may use to financially support philanthropic causes. It is, therefore, the first study that allows for comparison of their use, and the initial empirical test of the theory that the motivation of companies varies across the different giving ‚tools' they use (Galaskiewicz and Colman, 2006). We decided to distinguish sponsoring and giving because they are subject to different tax treatments, and we expected that this will induce corporations to use them differently. Sponsoring enters books as costs, the contract requires the receiving organization to provide some services in return. Sponsoring usually occurs in sports or cultural activities, the supported organization advertises the sponsors in return for the funding. Giving, on the other hand, is established by the giving contract, nothing is required in return.[3]

Our analysis draws on a theoretical model developed in Clotfelter (1985) and extended in Navarro (1988). We employ panel data econometric methods to capture the unobservable firm specific effects, and treat for sample selection.

The results document a significant difference between the two countries, with the Slovak Republic lagging behind the Czech Republic, particularly in giving. We fail to identify any significant general decline in giving in Slovakia following the changes in legislation in 2004 that made giving more expensive, but we observe that firms with foreign owners shifted their support from giving to sponsoring. In addition, we observe that, while philanthropic expenditures in the Czech Republic have increased steadily over the studied period, they have remained stable in Slovakia, suggesting that the change in legislation might have counterbalanced a similar positive trend. While we observe significant differences in characteristics of companies that sponsor and give, the role of the tax rate is the same for both tools—they do not have any effect. But, we do observe a difference in behavior of firms with foreign and domestic owners in Slovakia, suggesting that different owners may response differently to tax legislation. We fail to find support for the claim that foreign firms are more generous than the domestic ones (e.g., Bussard et al., 2005; BLF, 2004).

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[2]Czech nonprofit organization focused on support of foundations, and corporate philanthropy; www.donorsforum.cz.
[3]This does not mean that there is nothing given in return. But the potential payback occurs out of corporate books and may be of a less tangible nature.

The study is relevant for various actors related to philanthropy: it examines the relevance of the changes in the tax legislation on corporate contributions, thus, on the income of charities, which often provide public goods that would otherwise had to be provided by public agencies. The results are important for the institutions helping to build a corporate giving culture in transition economies, suggesting that their work, indeed, makes a difference, and helps to point out the new target areas. The study is also relevant for nonprofits in that by understanding corporate behavior it may help them to target their donors more effectively.

2. LITERATURE OVERVIEW

The first part of this section is focused on the literature providing rationales for corporate giving. A number of theories have been developed to explain the motivation of firms for philanthropy; we briefly introduce the prominent ones but focus on two, profit maximization and managerial utility maximization.[4] It is necessary to keep in mind that all these theories have been developed in established economies with long histories of corporate philanthropy, the differences expected in transition countries are summarized in Section 3 below.

2.1. Theoretical studies

Two classes of corporate giving theories are distinguished in literature, economic and organizational. The economic theories focus on the underlying motivation of companies to give, i.e., internal factors. The organizational theories, on the other hand, explore the conditions in the corporate environment that affect giving, i.e., external factors. The literature provides five prominent economic theories: maximization of profit, maximization of managerial utility, altruism, corporate social responsibility (CSR), and political theory; and four organizational theories: agency, stakeholder perspective, resource dependence, and institutional theory. The two most often applied theories are maximization of profit and maximization of managerial utility (e.g., Clotfelter, 1985; Navarro, 1988; Boatsman and Gupta, 1996).

Profit maximization is a firmly established and often applied theory as corporations are, in the first place, expected to maximize their profit. All their activities, including corporate charity, are therefore assumed to support this objective. Corporate charity, at first glance, seems to be only a waste of corporate funds, mitigated slightly by the possibility to deduct donations from taxes[5]. But, there is an indirect positive effect usually compared to that of advertising that makes corporate giving profitable: giving is claimed to positively influence the public image of the company (i.e., shifting out the long-run demand curve faced by the company). Moreover, giving is claimed to decrease the costs of labor by increasing employees' loyalty and productivity and decreasing their turnover.

Maximization of managerial utility is the major competing hypothesis. According to this theory corporate giving results from a principal-agent problem in the company. Managers,

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[4]Extensive surveys of corporate giving theories are available in Galaskiewicz and Colman (2006) and Abzug and Webb (1997). This section is based on these surveys.

[5]Donations are deducted fully if their volume remains below a deductibility limit, the price of giving is then (1-t), t is the corporate tax rate.

insufficiently controlled by the owners, use corporate funds to maximize their utility through perks, charitable giving being one of them.[6]

Both these rationales have been modeled and straight-forward testable hypotheses have been derived: the optimal level of giving in firms maximizing profit does not depend on the corporate income tax rate. But, the tax rate does matter if managers give to maximize their utility (Clotfelter, 1985; Navarro, 1988; Boatsman and Gupta, 1996; Jankech, 2002). Boatsman and Gupta (1996) show further that the impact of tax rate depends on the budget constraint imposed on the manager: if the constraint binds the income effect prevails and the tax rate has negative impact. If the constraint does not bind the substitution effect prevails and the effect of tax rates is positive. But, this model and its predictions hinge on two strong assumptions: firm optimizes over one period only and giving is fully tax deductible.

The assumption of full deductibility of giving is not necessarily valid in our environment.[7] But, as shown in Jankech (2002), predictions of the basic model remain valid even if we relax this assumption, i.e., tax rate affects the optimal level of giving only if it is motivated by maximization of utility. He shows that an increase in the deductibility limit, if it were binding, leads to an increase in giving. This result is independent of the specific motivation for giving, maximization of profit or utility.

Clotfelter (1985) relaxes the second major assumption of the original model; he develops a two-period model that allows for accountability of the long-run payoffs of giving, he omits the consideration of managerial utility and focuses only on profit maximization. Donations from the first period build goodwill and pay off also in the second period. In this setting the predictions formulated above do not hold. If a firm maximizes profit over several periods, then tax rate affects the optimal level of giving—it is optimal to shift giving to periods when it is cheaper (i.e., the tax rate is higher). The extent of these shifts depends on the discount factor and the rate of depreciation of the accumulated capital. If there is no depreciation it is optimal to give most when it is cheapest and 'live' from the payoffs later on. The rate of goodwill depreciation depends on the corporate environment, corporations may decrease it by establishing a foundation, which would collect donations in the good years and pay them out smoothly over time, ensuring payoffs in later periods for a good price. Including maximization of managerial utility in a two-period framework is likely to lead to less clear-cut predictions, as tax rates will affect not only the permanent level of giving (one period model result) but also the timing of donations (two-period model), making it difficult to distinguish between maximization of utility and profit.[8]

The remaining three economic theories have not been modeled yet: according to the altruistic theory corporations give because their owners are altruistic and care about worthy causes. Webb (1992) provides several reasons why an owner may prefer giving through the corporation: higher effectiveness of bigger donations that would be too big for an individual donor (big donation to one organization is more effective, thus, may better serve the purpose of donors), double-taxation of dividends (it is cheaper to give from company's profit), and free-riding (when giving corporate money all shareholders are 'forced' to give

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[6]Managers may have various motives for their philanthropic behavior, they may give to gain status, prestige, or gifts in exchange, or they may be altruistic. Predictions of this theory do not rely on their specific motivation.
[7]The limit for tax deductibility is high enough not to be binding, i.e., the full amount of contributions decreases the tax base. More details in Section 3.1.
[8]We attempted to extend the model for consideration of managerial utility maximization, but the task turned out too difficult, for now.

proportionally). According to political theory, corporate giving is used to influence corporate environment (Galaskiewicz and Colman, 2006). The Corporate Social Responsibility (CSR) concept has gained significant attention particularly in the last decades. According to this theory corporations have a 'duty' towards their stakeholders to behave responsibly, they are expected to 'optimize' rather than maximize their profit, taking into considerations a triple bottom line of economic, social, and environmental values (e.g., Bussard et al., 2005; BLF, 2003). Corporate giving is one of the tools they may use to fulfill these expectations.

The literature so far does not provide a testable hypothesis that would distinguish among these theories. Moreover, it seems that these theories may be included in the two major theories explained above. The altruistic theory assumes altruism, or utility maximization, of owners, which, on the outside cannot be distinguished from the maximization of managers' utility. Internally, it would be distinguishable if we observed the extent of the principal-agent problem in the company, i.e., the extent of owners' control. The CSR theory could be incorporated in profit maximization as an adjustment of the corporate environment for the increased power of various stakeholders. This merge is further supported by the shift of CSR from a competitive advantage to a must in many established economies (e.g., Brammer and Pavelin, 2005). The political theory can be identified within both main theories, depending on the motivation for the change in the environment, which could be maximization of profit or utility (of managers or owners).

Organizational theories examine the specifics of corporate environment. Somewhat simplistically, these theories suggest that it is necessary to identify the strongest stakeholders and evaluate their impact on corporate charitable behavior. The agency theory corresponds to the utility maximization theory, suggesting power is in the hands of managers, resource dependence theory suggests powerful suppliers/consumers, and the institutional theory focuses on the impact of higher uncertainty in the environment.

Galaskiewicz and Colman (2006) provide an overview of corporate charity; they structure their analysis according to the different tools corporations use to support/collaborate with nonprofits (e.g., financial support, donations of products, sponsoring, volunteering, etc.). They suggest that different types of collaboration result from different motives for giving. Taking into account that giving typically results from an interplay of several motives, i.e., identification of the main one may be rather cumbersome, it seems optimal to explore the motivation separately for different giving tools.

2.2. Empirical studies

In this section we briefly introduce empirical work on corporate giving focusing on studies that explore the role of tax legislation for giving. Extensive surveys may be found in Galaskiewicz and Colman (2006), Clotfelter (1985), or Webb (1992).

There exist two papers that empirically examine the motivation of corporate donors by examining the impact of taxes: a cross-sectional analysis by Navarro (1988) and a panel data analysis by Boatsman and Gupta (1996).[9] Both studies are based on the one-period theoretical model described above, they test its prediction that taxes affect giving only if firms give to maximize managerial utility.

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[9] Other papers on corporate giving explore different topics, e.g., main factors that influence on giving (e.g., Brammer and Pavelin, 2005; Seifert et al., 2003; Webb, 1992) or the impact of corporate charity (e.g., Chang, 2003).

The empirical specifications in these papers differ due to the different data sets and econometric techniques used. Boatsman and Gupta (1996) analyze panel data, 212 firms over 5 years; their basic specification therefore includes only tax rate and income as the fixed effect model used captures the firms specific variables (constant in time) in the firm dummy variables. Navarro (1988) uses cross-sectional data, 249 Fortune 1000 firms from the period 1976-1982. His specification therefore includes also firm specific variables, such as, labor intensity, free riding (ability to rely on others' giving), debt-equity ratio, change in dividends, or salaries of executives.

The results from Navarro (1988) support the hypothesis that giving is a form of advertising motivated mainly by profit maximization.[10] Analyzing the firm specific variables he shows that giving serves as a quasi-fringe benefit to employees through its impact on the community (environment), and that giving is lower due to free riding (firms in communities with high number of firms give less). Boatsman and Gupta (1996) provide results from a fixed effects specification, which proved to be the best in comparison to pooled ordinary least squares and random effects model. Contrary to Navarro (1988) they conclude that giving is motivated by managerial utility because it is affected by the tax rate. The effect of the tax rate is negative, which means that the budget constraint imposed on the managers is binding. Income has a very small positive effect on giving. The possible cause of the opposite results in the two studies is the data and measures used. The Navarro (1988) study works with cross-sectional data: it is possible that there are unobservable firm characteristics that may bias his results. Another bias may be caused by the measurement error in the tax rate: Navarro (1988) uses average tax rate instead of the marginal tax rate that matters in the theoretical model and is used in Boatsman and Gupta (1996).

3. CORPORATE GIVING IN TRANSITION: THE CZECH AND SLOVAK REPUBLICS

In this section we summarize the specific features of transition countries, focusing on the differences to the more developed economies. We expect that, in line with the organizational theories (Section 2.1), these features affect the philanthropic behavior of corporations.[11] Even though during the analyzed periods both the Czech and Slovak Republics were considered established market economies (CERGE EI, 2004; CERGE EI, 2002; IVO, 2002) there remained characteristics that differed from those observed in more developed economies. We next discuss differences in the market environment, economic conditions, and philanthropic tradition.

The market environment in transition economies is not developed to the extent observed in the developed economies. The lag is due to the short history of these markets and their fast and unstable development in a short period of time. The major consequences were significant uncertainty, in particular in the early years of transition, and low transparency and high levels

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[10]The tax rate is significant in one specification only and with a small negative effect, offering a very weak support for maximization of utility.
[11]We compare the situation in the Czech and Slovak Republics to that in the U.S.A. and western European countries. We realize that the differences present here are even stronger in countries east of Slovakia, further strengthening our arguments, as suggested in Ilko (2004) for Ukraine, or King and Tchepournyhk (2004) for Russia.

of corruption, which remain today (Hanousek et al., 2005; CERGE EI, 2004; Lízal and Kočenda, 2002; CERGE EI, 2002).[12] An inefficient and complicated legal system continues to support corruption and intransparent behavior.[13] Uncertainty in Slovakia was higher until 1998 due to the political instability, marked by a severe lack of transparency, corruption, and politically motivated decisions. Many of these problems, however, remained also after the change in the government in 1998, though their intensity decreased significantly (IVO, 2002). A number of important changes improving the Slovak market environment occurred in 2003-2004, namely, the reforms of the tax legislation, health care, and the pension system.

Countries in transition continue to lag behind their more developed counterparts also in their economic performance, an important determinant of corporate charity.[14] Lower levels of giving in post-communist countries are, indeed, often explained by the unfavorable economic conditions (Kivilo, 2005; Ilko, 2004; King and Tchepournyhk, 2004; Brooks, 2002, Marček and Dluhá, 2002). Fidrmuc and Gerxhani (2005) show that unfavorable economic conditions in transition account also for their low stock of social capital, measured by civic participation and access to social networks. Nevertheless, both the Czech and Slovak Republics have experienced significant economic growth in the periods under consideration,[15] suggesting parallel growth in corporate philanthropy.

A lack of tradition of philanthropy[16] and corporate social responsibility (CSR) is another feature of transition countries that is expected to strongly negatively influence corporate charitable behavior. Development and popularization of CSR has been supported by the International Business Leaders Forum (BLF), a nonprofit organization with national branches in both countries. BLF in the Czech Republic has been in existence since 1992, when it was established in then still common Czechoslovakia (www.blf.cz). The Slovak BLF came into existence only in spring 2004 (www.blf.sk). Nevertheless, the number of companies understanding and implementing the concept of CSR remains low in both countries (CR: BLF, 2004; SR: WB, 2004).[17] One of the possible explanations of this low engagement is, according to BLF SR (2005), the ignorance of the public, thus, insufficient pressure on companies to get involved.

The inefficient operation (or at least a perception of such) and unprofessional behavior of nonprofits, caused to some extent by their short histories[18] and reliance on volunteers rather than professional employees, further hinders cooperation between the corporate sphere and nonprofits (Marček and Dluhá, 2002). Attempts to enforce cooperation among organizations

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[12]The corruption perception index in both countries remains very high, it was 4.3 on a 10 point scale, 10 being the best, in both countries in 2005 (47-50th place, together with Greece and Namibia, among 159 countries, www.transparency.org).

[13]The income tax law in the Czech Republic was amended 43 times in 10 years, steadily increasing in complexity and number of exceptions (CERGE-EI, 2002). Legislation in the Slovak Republic was afflicted by similar problems (e.g., Lizal and Kocenda, 2002), including the problems with complexity and frequent changes (MFSR, 2003; Moore, 2005). However, the laws governing corporate giving remained simple (see Section 3.1).

[14]Corporate giving remains a relatively stable fraction of before tax profits in the U.S.A. (Clotfelter, 1985; Galaskiewicz and Colman, 2006).

[15]www.oecd.org

[16]Nonprofit organizations and charitable giving had been practically non-existent during communism.

[17]Charitable giving is one of the aspects of CSR, but the main focus of corporations in the Czech and Slovak Republic remains on the internal issues such as care for employees, transparency, and environmental protection (BLF, 2004; WB, 2004).

[18]Most of the nonprofit organizations in transition countries have been established since the fall of communism, there are only a few with longer tradition, e.g., the Red Cross or amateur sports organizations (see e.g., Fric and Goulli, 2001).

in the two sectors (supported by nonprofits such as PANET (SR), or Donors Forum (CR)) have strengthened after accession to the EU in May 2004 via the European regional programs focused on cooperation among three sectors: public, for-profit, and non-profit (Bussard et al., 2005; Dluhá and Marček, 2003; DF, 2004).

In Slovakia, there is yet another difference which is expected to significantly affect corporate charitable behavior, tax assignation.[19] Tax assignation for physical persons, an opportunity to assign a fraction of one's paid income tax to a particular charitable or publicly beneficial purpose, was introduced in 2000 to become effective in 2002.[20] The fraction that could be assigned was set to 1%. The scheme was extended to corporations in 2003, the extension was proposed by the government after it rejected nonprofits' request to distribute a fraction of income from privatization as was done in the CR. While tax assignation for physical persons exists in several other, mostly transition, countries,[21] tax assignation for corporations is unique for Slovakia. In 2004 the fraction that may be assigned increased to 2% for both corporations and physical persons.

Tax assignation represents an additional source of funds for nonprofits[22] and we include it, to a certain extent, in this study even though it is not philanthropy in its true sense. Corporations that assign do not donate their own resources, they only distribute fraction of state funds. Nevertheless, firms usually consider assignation a form of philanthropy[23] possibly because assignation requires that the firm makes a decision and shows some interest in the organization it supports.

3.1. Relevant legislation

This section summarizes the legislation that governs corporate philanthropy. Legislation in the Czech and Slovak Republics, including that governing corporate philanthropy was very similar (e.g., Lízal and Kočenda, 2002) until 2004 when there were several major changes in Slovakia. In this section we focus on three different tools with different tax treatment that corporations use to support nonprofit organizations: sponsoring, giving, and in Slovakia also tax assignation.

Sponsoring, governed by a contract about sponsoring, is often compared to advertising. Expenditures on sponsoring enter books as costs, decreasing taxable income without further restrictions. The corporate tax rate is therefore the only legal factor that influences the expenditures on sponsoring. Due to an income effect, increasing the tax rate increases sponsoring, because its price is lower. However, the income from sponsoring is a business income for the receiving organization, and it has to be taxed.[24]

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[19]The attempts to introduce tax assignation in the Czech Republic have not been successful yet (www.rozhodni.cz).

[20]The law became effective two years later because the government expected a decline in the budget caused by a significant decrease in corporate tax rate in the year 2001.

[21]For example, Hungary, where it was first introduced, or Poland (www.onepercent.hu).

[22]Tax assignation is indeed a significant additional source of income, in 2004 corporations assigned 570 million Sk, 92% of the total amount they could have assigned. In addition, 276 million Sk were assigned by physical persons (SNSC, 2005).

[23]According to a survey performed in 2005 84% of companies considered assignation a form of philanthropy (NDS, 2005).

[24]NPOs in the Czech Republic may deduct 30% of their income from their taxable income, or 300,000 Czk (if 30% is less), maximum possible deduction is 1,000,000 Czk. The upper bound on deductions in the SR is 300,000 Sk.

Giving, governed by a donation contract, includes financial donations and donations of products and services. Expenditures on giving represent after-tax expenditures, tax deductible up to a limit. Therefore, giving is affected not only by the corporate income tax rate, as is sponsoring, but also by the limit on tax deductibility. The limits vary across countries, their evolution in the CR and SR is summarized in Table 1. The legislation in the Czech Republic has become complex, with many additional exceptions and changes in the limit in the last four years.[25] The limit in Slovakia had been stable, 2% of the taxable income[26] until 2004, when new legislation abolished the deductibility of donations.[27]

Tax assignation, which exists in the Slovak Republic only, allows corporations (and physical persons) to assign a fraction of their taxes to particular purposes, namely, to the listed publicly beneficial organizations, most often nonprofits. The assigned funds belong to the state, the government delegates the decision about how to distribute the assigned funds (collected taxes) to the tax payers if they choose to do so.

Table 1: Tax Legislation

Czech Republic		Slovak Republic	
Limit on tax-deductibility			
2% of tax-base		2% of tax-base	
5% (if natural disaster causes)			
10% for 2002-2003 (floods)		Since 2004 – no deductibility	
Corporate tax rate			
Until 2004	31%	2000 – 2001	29%
2004	28%	2002 – 2003	25%
2005	26%	2004	19%
2006 and later	24%		
Tax assignation			
		Since 2003	2%

3.2. Hypotheses

The hypotheses are motivated partially by the model by Navarro (1988); transition is expected to have no effect on the qualitative predictions of the model, but it is expected to influence the quantitative predictions: due to lower appreciation of corporate charitable behavior by consumers we expect that the impact of giving on demand is smaller, i.e., the profit-maximizing level of donation is lower. For the same reason we expect that the utility managers gain from giving is lower, relatively to the utility gained from other perks. On the other hand, the uncertain in-transparent environment of transition increases the incidence of principal-agent problems, giving managers more opportunities to divert funds. Nevertheless, it is difficult to predict what will the managers divert the funds to, they can choose to give less than is optimal for the company and to spend the funds elsewhere, but they can also choose to

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[25]Firms in the Czech Republic may deduct value of donations to listed causes up to 2% of their tax base, the limit is moved to 5% if the (additional) donations support natural disaster causes. In 2002 and 2003 the limit was shifted to 10% due to floods in 2002 (the 5% in addition had to be in support of the flooded areas). Minimum donation that can be deducted is 2,000 Czk. (The Act on Income Taxes No. 586/1992 Coll. in the wording of its future amendments.)

[26]In both countries donations had to be deducted in the year they were given (different from the U.S.A. with the possibility to carry forward donations above the limit). State owned companies did not have the right to deduct any gifts.

[27]The Act on Income Taxes No. 595/2003 Coll.

increase giving above the optimal level.[28] The final effect of these factors remains to be tested empirically. We divide the hypotheses to be tested into two groups, economic and organizational, as above in Section 2.1.

Economic theories

The economic theories analyze the motivation for corporate charity, the model by Navarro (1988) allows to distinguish between maximization of managerial utility and profit. If we remained in the one-period framework, the significance of the tax rate coefficient would allow for the distinction. Allowing for two-periods, though, makes the analysis more complicated and the predictions are not straightforward. Thus, we omit this interpretation of the tax rate coefficient and focus solely on the importance of the tax rate as such.

We expect that corporations in transition are strongly motivated by maximization of profits, thus, they shift their giving to periods with higher taxes. This results in independent of the framework (one- or two-period model) used. We expect that profit maximization results from the periods of significant instability and uncertainty in the environment that has been here in the past. In addition, this behavior results from the motivation to decrease the tax burden as much as possible, a strong motivation particularly in transition (Hanousek and Palda, 2002).[29] Tax rates in both countries have declined in the periods under consideration, the changes were announced in advance, hence, firms were motivated and able to shift donations to the earlier periods. Changes in the Czech Republic were smaller than those in the SR, thus, we expect lower impact. The most significant changes occurred in Slovakia in 2004, when the tax rate decreased significantly (25% to 19%), deductibility of donations was abolished, and tax assignations were introduced. We, therefore, expect this change to have the most significant effect.

> *Hypothesis 1: The tax rate plays a significant role in the giving decision.[30] The impact of the tax rate was stronger in Slovakia, particularly the change between 2003 and 2004.*

Galaskiewicz and Coleman (2005) suggest that companies optimize their use of the different giving channels, thus, that they have different motivation for the use of different channels. In this study we distinguish two channels of support, sponsoring and giving. The fact that these two channels are subject to a different tax treatment offers initial support for the hypothesis of different motivation. Different impact of the tax rate would offer additional support that the motivation is different. Because giving is treated more favorably in the Czech Republic than in Slovakia, we expect that the preference for sponsoring will be stronger in Slovakia.

> *Hypothesis 2: The impact of tax rate on philanthropic expenditures is different for sponsoring and for giving. The difference is bigger in Slovakia.*

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[28]We thank Rich Steinberg for pointing this out.

[29]We claim that the firms that engage in philanthropy tend to avoid rather than evade taxes because they are more 'visible' because of their philanthropic activities. If they preferred to evade taxes, we claim that they would not invest in charity and attract unwanted attention. Thus, we do not expect that evasion would make estimation problematic.

[30]The existing studies of corporate philanthropy in the U.S.A. use two measures of the tax rate, average and marginal. The corporate tax rates in Czech and Slovak Republics are constant for all levels of income, but they have decreased in the past years, with some changes in the periods under consideration here.

Organizational theories
This section focuses on the external factors influencing corporate philanthropy. As suggested by the organizational theories we examine the stakeholders with a potential to affect the behavior of corporations.

Size of the company is a typical factor influencing expenditures on philanthropy. This is natural as large companies have more funds available, thus, they also spend more in absolute amounts on charity.

Hypothesis 3: Big companies are more active in philanthropy.

Ownership of the company is another factor that has influence on philanthropy. Namely, it is often claimed that foreign owners bring to their companies corporate culture from their home countries, where philanthropic and CSR traditions are more established. Companies with foreign owners therefore take the lead in philanthropic behavior in transition economies (e.g., Bussard et al., 2005; BLF, 2004). An additional factor increasing the giving of foreign companies may be a higher need to build relationships and goodwill in the foreign country.

Hypothesis 4: Foreign owned companies are more active in philanthropy.

Type of the industry in which the company operates, also co-determines its corporate giving. Firms in services are closer to their customers, which makes their involvement in the community more important and increases also their incentives to participate in philanthropy. Retail firms, on the other hand deal with large groups of consumers making their participation in philanthropy important. These pressures are smallest in manufacturing.

Hypothesis 5: Firms in retail and services are more active in philanthropy than firms in manufacturing.

Firms operating at different levels face different conditions and meet different stakeholder groups. Firms operating at the international level are expected to meet stronger stakeholder groups and operate in an environment with higher expectations on corporate behavior. These factors are expected to increase their engagement. On the other hand, firms operating at the regional level are closer to their stakeholders and the needs of the local community. Which of these forces is stronger is an empirical question.

Hypothesis 6: Level of operation affects philanthropic behavior of companies.

The last factor we want to discuss is location. We assume that the biggest difference exists between the firms in the capital and other regions. There are several factors decreasing philanthropic engagement in the capital: free riding–firms in areas with many other companies tend to free ride on giving of the others (Navarro, 1988), anonymity of relations in large cities—building of relationships and cooperation is more difficult. There are though also factors increasing giving in the capital: better economic performance—companies have more resources to give, higher density of nonprofit organizations—the pressures to give are higher as is the demand for donations. As above, it remains an empirical question to determine which of these forces is stronger.

Hypothesis 7: Philanthropic behavior of firms located in the capital differs from that of firms in other regions.

4. DATA

The data used are the first of its kind in both countries,[31] they were collected using face-to-face interviews by market survey company Median (Median SR in the SR). Data for the Czech Republic were collected in two surveys: the first sample was collected for the Czech Donors Forum in 2004, covering 577 firms over three years (2001-2003), with an over-sampling of large and medium-sized firms.[32] The second sample was collected in 2006, covering 162 firms over five years (2001-2005), focusing entirely on large and medium-sized firms.[33] The Slovak sample was collected in 2005, covering 152 firms over four years (2001-2004). Here, too, large and medium-sized firms are over-sampled.[34] Details about the samples are summarized in Table 2 below.

The focus of our surveys was on quantitative information about corporate philanthropy.[35] The collected data include amounts spent on sponsoring and giving, number of supported entities, supported areas, target groups, and information about the companies (number of employees, industry, geographical area, legal form, level of operation, sales, and income before taxes). We attempted to obtain additional information on the companies but failed because, to induce participation, they were guaranteed anonymity.

It is not possible to obtain any hard data on corporate philanthropy, thus, it was necessary to collect data using surveys.[36] The data, therefore, exhibit typical survey data problems including sample selection—we have data only for the firms that were willing to cooperate. In our case, firms that do not contribute usually do not respond to these questionnaires (Navarro, 1988). Similarly, small firms and firms contributing small amounts do not respond (Helland and Smith, 2003). This problem though is partially addressed in our samples because we cover not only giving but also sponsoring (and assignation in the SR).

Several problems of the samples stem from the specific nature of the studied topic. The major hurdle is quality of the information on giving and sponsoring expenditures, which is often low: the corporations are reluctant to publicize any specific information regarding their philanthropic spending (Múčka, 2005; Kivilo, 2004; Marček and Dluhá, 2002).Low quality of giving data results from the unclear accounting rules that guide giving, particularly giving of material gifts, or services. Often even the companies themselves have problems to distinguish between sponsoring and giving, making reporting problematic. To mitigate this problem the

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[31]There have been several studies of corporate philanthropy performed in the Slovak Republic (Marček and Dluhá, 2002; Velšic, 2004; NDS, 2005), but the only study asking for amounts spent (for 2001) was the study by Marček and Dluhá (2002). The sample is rather small hinting low willingness to disclose this information (107 respondents out of 194 participating). The only study in the Czech Republic was the survey performed by Donors Forum, we work with this data.

[32]A representative sample would include 98% of firms below 50 employees, providing insufficient information on big firms, which are the most important givers. In addition, the sample included a group of big firms specified by Donors Forum, which may bias the results slightly, even though the sample was made representative afterwards.

[33]It includes only companies with more than 50 employees.

[34]The first Czech survey was performed by Donors Forum, which required an overview of the whole market. We replicated the survey in both countries to obtain additional data but due to limited resources we focused on large firms only.

[35]The original survey in the CR included also a qualitative part about strategies and management of philanthropy (DF, 2004). This part was omitted in both additional surveys.

[36]Giving is tax-deductible in the CR but not in the SR, thus, the tax-office cannot provide the information. Moreover, not all companies claim deductibility, and the tax-office cannot provide individual data. Sponsoring belongs to advertising and PR expenditures, thus, it is not possible to trace the information in accounting books.

surveys emphasized several times the distinction between the two methods of support. To deal with the reluctance to report the specific values respondents were allowed to report the information in intervals. Unfortunately, the first survey in the CR did not give the respondents an opportunity to provide also the exact amount if they would. We corrected this in the additional surveys in both countries, where the intervals were offered only when the respondents declined to provide the exact amount. Data on profit before taxes and sales were reported in intervals as well.[37]

A closely related problem concerns the structure of the reporting intervals used,[38] namely, the first interval (for giving and sponsoring) in the original Czech survey was very broad, up to 200,000 Czk. As a result nearly 79% of the reported giving (company/year) fell into this interval. We corrected this in the additional surveys, where we split the first category into four subcategories, but to maintain the same number of intervals we merged the top three intervals. Throughout the study we work with the different intervals for the different studies, though for comparison we provide also results with common intervals—intervals merged so that they are the same for all three samples. The fact that the respondents had to report the information retrospectively for the last 3, 4, or 5 years may also bias results. The extent of this problem was mitigated by the fact that the interviews were arranged in advance, thus, the respondents had time to prepare.

The last concern we want to discuss regards reporting of profits. If only the firms with profit too low or too high would refrain from reporting them, the estimated regressions would suffer from incidental truncation. The bias depends on the type of firms that did not report their profits—if the firms with low profits do not report, the estimated impact of profits on giving would be biased downwards. However, we are unable to control for the willingness to report this information.

4.1. Structure of data sets

The structure of the samples is summarized in Table 2. This is the structure of the original data collected; for the analysis we merge the two Czech samples[39] and weight the data to obtain a sample representative of the population.[40]

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[37]None of the surveys asked for the exact amounts of sales or PBT as the used intervals were rather narrow, thus, the information is of sufficient quality.

[38]Two types of intervals were used, one for giving and sponsoring (9 categories), and a second one for sales and PBT (180 categories).

[39]We tested that the merge is possible using the Chow test of equality of coefficients.

[40]Firms in the sample are of various legal forms, more than 80% in all samples are joint-stock and limited liability companies. The fraction of publicly traded companies is negligible because the Czech and Slovak financial markets remain small and inefficient.

Table 2. Structure of the samples

	CR I	%	CR II	%	SR	%
Number of employees						
Less than 50	310	54	-	-	67	44
50 - 250	194	34	108	67	56	37
250 - 1000	48	8	41	25	25	16
1000 and more	25	4	13	8	4	3
Ownership						
Foreign	38	7	21	13	21	14
Mostly foreign	31	5	10	6	9	6
Mostly domestic	54	9	41	25	26	18
Domestic	454	79	90	56	94	62
Level of operation						
International	90	16	50	31	48	33
National	148	25	65	40	57	38
Regional	339	59	47	29	43	29
Industry						
Manufacturing	248	43	110	68	90	60
Retail	135	23	7	4	27	18
Services	194	34	45	28	33	22
Total	577	100	162	100	152	100

Table 3 summarizes aggregate information on corporate philanthropy in both countries: fraction of firms participating in sponsoring/giving (*Participation*), average amount spent on sponsoring/giving (*Amount*),[41] average amount reported in common intervals (CI),[42] sponsoring/giving as a fraction of profits before taxes (average amount divided by profit before tax, *Amount/profit*), and sponsoring/giving as a fraction of profits before taxes computed using CI. Data are weighted to be representative of the population of firms in the country. We tested for the equality of means between the two countries using the Wald test, the results are provided in the last column (for both sponsoring and giving).

Table 3: Comparison CR/SR, basic indicators

	Sponsoring			**Giving**			**Assignation**
	CR	**SR**	**Wald test**	**CR**	**SR**	**Wald test**	**SR**
Participation	0.56	.60		.61	.42	***	.51
	(.01)	(.03)		(.01)	(.03)		(.04)
Amount	471.75	133.41	***	375.85	58.61	***	
	(63.00)	(33.07)		(64.76)	(16.97)		
Amount (CI)	317.13	167.43	***	246.15	101.75	***	
	(24.40)	(32.37)		(18.36)	(16.67)		
Amount/profit	.33	.11	***	.44	.05	***	
	(.04)	(.02)		(.06)	(.01)		
Amount/profit (CI)	.32	.27		.44	.22	***	
	(.04)	(.05)		(.06)	(.05)		
Standard errors are in parentheses. *** denotes significant difference between the means in CR and SR at 1%.							
Notes: Amounts are in thousands of Czech Crowns, adjusted for inflation with base year							

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[41]Amounts are in thousands of Czech Crowns, adjusted for inflation with the base in 2001.

[42]Common intervals are used to enable better comparison of the samples. Common intervals are the same in all samples, i.e., they group data from the narrow intervals in the SR and new CR sample to form the big first interval in the original CR sample, and vice-versa for the high categories.

2001. Common intervals (CI) allow a better comparison of the samples. They group data from the narrow intervals
in the SR and CRII sample to form the big first interval in the original CR sample, and vice-versa for the high categories.

We observe that despite the fact that there is a significant difference between the expenditures on sponsoring and giving in the Czech Republic when reported in the original and common intervals, we do not observe this difference in the share categories (*Amount/profit*). This is caused by the fact that even though there is a significant decline in the average expenditures due to the merging of the last three intervals of the original Czech sample, we cannot observe this decline in the share categories because these observations are missing—these firms did not provide the information on their profit. This information is missing only in the largest category (over 50 million Czk); reporting in the other categories does not exhibit significant differences. Thus, the data on the largest donors are excluded from the analysis that work with profit as a variable.

We observe that even though firms in Slovakia participate in sponsoring to a similar extent as firms in the Czech Republic and they also spend a similar fraction of their profit on sponsoring, their participation and spending on giving are significantly lower. Participation in sponsoring and spending as a fraction of profit in CI are the only categories in which we fail to reject the null hypothesis of equality between the countries. The differences in the data reported in the original and common intervals show the biases are caused by the size of the first interval (SR results) and the merging of the last intervals (CR results). Nevertheless, the differences in giving between the countries remain significant also in common intervals, Slovakia remains below the CR. A comparison of profitability shows that profits in Slovakia are significantly below those in the CR (average profit in CR was 227,431, in SR 14,040 thousand Czk). Importantly, the difference is mainly driven by less than 1% of firms with very high profit, which is missing in Slovakia. The result is even stronger when we take into account that the fraction of firms that reported profit was higher in Slovakia, including firms with high profit.[43]

In the Slovak Republic, participation in assignation is slightly (although not significantly) below that in sponsoring but significantly (at the 10% level) above participation in giving. Comparing the fraction to that obtained in the un-weighted sample[44] we observe a downward shift, i.e., small firms assign less often. This could be caused also by the fact that probability of low (zero) profit among small firms is higher—these firms pay no or low taxes and have nothing to assign. Similarly, the level of participation in giving is higher in the un-weighted sample (47%), i.e., small firms participate less in giving. We also compared sponsoring and giving in the years before and after assignation in Slovakia, but we failed to find any significant difference.

We do not have data on the amounts assigned. This question was omitted from the survey as we did not expect any company to assign less than the two percent allowed by law. Though, we asked whether they used the assignations to the full extent, only 9% of companies responded that they assigned less than 2%.

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[43]More than 70% of firms in Slovakia reported their profit, while the fraction is the Czech Republic is only around 50%.
[44]Available on request.

5. METHODOLOGY AND RESULTS

5.1. Methodology

We analyze two decisions—how much to spend on sponsoring and how much on giving.[45] The panel format of data allows for the accountability of the unobservable firm specific effects using either random or fixed effects specification, REM or FEM. With random effects we impose a strong restriction that the firm specific effects are uncorrelated with the error term, this assumption is relaxed in the fixed effects specification. The fixed effects, however, do not allow for the examination of the impact of the observed firm specific variables (Wooldridge, 2002). We first test for the appropriate specification comparing the pooled OLS regression, REM, and FEM. If FEM proves to be the correct specification, we estimate an additional model to evaluate the effects of the observable firm characteristics of interest (Wooldridge, 2003). The specification is a random effects model with residuals from the fixed effects model as a dependent variable, the explanatory variables are the observed firm specific variables of interest. In this specification, there is no variation in time any longer, all we measure is the 'between' variation across firms.

As discussed in the data section, we need to cope with a typical problem of survey data, sample selection. We can deal with this problem to some extent because we have data for sponsoring and giving—we have information also for firms that did not give but sponsored and vice versa. This makes it possible to employ Heckman's two step procedure (Green, 1993) to account for the potential self-selection of firms. In the first step we estimate the selection equation using probit on the participation (separately for sponsoring and giving) decision. In the second step we estimate the appropriate specification as identified above with the selection parameter λ among the explanatory variables.

The main drawback of FEM is that it cannot account for the fact that data are in intervals, we estimate the models using the middle points of the reporting intervals. Interval regression is possible only in REM—an ordered probit model estimated using maximum likelihood.[46] We therefore estimate the random effects interval regression for comparison. To account for the simultaneity of the choices in giving and sponsoring we estimate also a system of seemingly unrelated equations.

Models explaining the amounts spent on sponsoring or giving exhibit one additional problem: potential endogeneity of profit. The optimal donations depends on the corporate characteristics, profitability being one of them, but, we assume that donations also affect profit of the company. Hence, including profit among the explanatory variables results in an endogeneity problem that should be fixed using instrumental variables. Unfortunately, the data we have at our disposal do not provide any potential instruments.[47] It is, therefore, not possible to test for endogeneity. To avoid the endogeneity problem in our analysis we do not include profit among the explanatory variables. In this way we also avoid the problem of

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[45]Data about the amounts assigned are not available.

[46]There is not sufficient statistics to estimate conditional fixed effects, the estimates in un-conditional fixed effects are biased (Stata manual).

[47]We created an instrument using the profitability of the industry, i.e., average profit of all other companies in the market. However, the number of companies within industry groups was too small (if we wanted to maintain some industry structure). Thus, the variable did not properly instrument for the omitted profit and we did not use it in the analysis further on.

incidental truncation caused by the potential nonrandom profit reporting, as discussed in the data section above.[48]

5.2. Empirical model

The empirical model is based on the theoretical model from Navarro (1988) and extended for the consideration of organizational characteristics. We examine two specifications, one for the amounts spent on sponsoring and one for giving (in the model we denote them generally philanthropy, *Phil*):

$$Phil_{i,t} = \beta_0 + \beta_1 Size_{i,t} + \beta_2 IndD_i + \beta_3 LopD_i + \beta_4 Capital_i + \beta_5 OwnD_i + \beta_6 FD_i +$$
$$\beta_7 Year + \beta_8 TaxD_i + \beta_9 CRII_i + \mu.$$

We use logarithmic transformation of the amount variables, the dependent and applicable explanatory variables, to get estimates of elasticities. The specifications may be estimated on a merged sample (both countries together) or separately for each country, the choice depends on the similarity of the two countries.

The explanatory variables are:
Size, variable capturing the size of the company, used to normalize the levels of giving (big companies give more in absolute values). Size is measured by two variables: *Sales*, the volume of sales and *NoE*, number of employees.
IndD, dummy variables indicating different industries: manufacturing, retail, and services. They capture possible differences in the reliance on philanthropy across different industries. The industries closer to their customers are expected to give more. We use services as the benchmark group.
LopD, categorical variable indicating the level of operation: international, national, and regional. This variable captures the potential power and expectations of company's stakeholders.
Capital, dummy variable indicating firms located in the capital, Bratislava or Prague.
OwnD, dummy variables indicating different ownership structures: foreign, mixed, and domestic. The variables are expected to captures the differences in the philanthropic culture and behavior of domestic and foreign owners.
FD, dummy variable distinguishing firms with a foundation or a foundation fund. It captures possible strategic philanthropic behavior of a firm, signaling higher engagement in philanthropy.
Year, categorical variable capturing the possible time trend in giving.
TaxD, represents four dummy variables indicating different corporate tax rates. There were three different tax rates in Slovakia, and three in the Czech Republic, see Table 1. Tax dummies are denoted Tax1 SR (year 2001), Tax2 SR (2002-2003), Tax3 SR (2004), Tax1 CR (2001-2003), Tax2 CR (2004), Tax3 CR (2005). Two for each country are included in the regressions, setting the third one as a benchmark.
CR II, dummy variable denoting the additional, second sample for the Czech Republic. Details about the sample are in the data section.

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[48]Exclusion of profit may cause an omitted variable bias. We compared the coefficients at the other variables in the specifications with and without profit and the differences were negligible, thus, the omitted variable problem does not seem to play a role.

5.3. Results

5.3.1. Participation

In this section we report results on participation in sponsoring, giving, and, in the Slovak Republic, assignation. The sponsoring and giving specifications are used to obtain the estimate of the selection parameter, λ, to correct for selectivity in the expenditures specifications of interest that follow. We tested for the equality of coefficients in the two countries. The hypothesis was rejected and we therefore estimate the model separately for the Czech and the Slovak Republics. We performed a similar test comparing the first and second Czech sample, where we failed to reject the hypothesis of equal coefficients. Therefore, we merged the two samples, but to account for a difference in the levels[49] using a dummy variable denoting the second sample, *CR II*. In both cases we estimated a linear probability model, probit, and a system of seemingly unrelated equations. Here we report, Table 4, only results from probit random effects, because we use it further for the Heckman's selection correction and the fact that results from the other models do not differ significantly.[50]

Several results on participation were summarized in Table 3; we observed that participation of firms in sponsoring was similar in both countries, but the Czech firms gave significantly more often. This offers some support for Hypothesis 2 that sponsoring is preferred to giving in Slovakia. We also observed that only approximately half of Slovak firms participate in assignation, a very low number if we take into account that assignations impose only negligible costs (administrative) on the company. This may be caused by two factors discussed in more detail below: low profitability of firms (positive profits, thus, positive tax dues, are a necessary condition for assignation), and lack of interest in the subject.

Table 4: Participation, random effects probit

| | Sponsoring | | | | Giving | | | | Assignation | |
	CR		SR		CR		SR		SR	
Number of employees	0.61	*	-0.56		0.91	***	1.09	**	-0.97	*
	(0.33)		(0.49)		(0.32)		(0.52)		(0.51)	
Sales log	0.32	***	0.40	**	0.35	***	0.23		0.91	***
	(0.07)		(0.18)		(0.07)		(0.19)		(0.22)	
Manufacturing	-0.69	**	1.08		-0.06		0.26		0.96	
	(0.34)		(0.73)		(0.33)		(0.70)		(0.71)	
Retail	-0.58	*	1.60	**	0.42		1.74	**	0.68	
	(0.32)		(0.75)		(0.37)		(0.72)		(0.74)	
Level of operation	- 0.13		-1.93	***	0.84	***	-1.01	**	-1.52	***
	(0.24)		(0.39)		(0.23)		(0.38)		(0.41)	
Capital	-1.08	**	-0.04		-1.36	***	-2.23	***	2.33	**
	(0.44)		(0.92)		(0.45)		(0.85)		(0.99)	
Foreign own	1.28		-5.40	***	1.28	*	-0.20		-1.71	*
	(0.89)		(1.04)		(0.75)		(0.96)		(1.0)	
Mixed own	0.54		-0.27		-0.51		1.09		-1.16	
	(0.45)		(0.72)		(0.44)		(0.67)		(0.75)	
CR II	-0.74				0.06					
	(0.60)				(0.59)					

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[49]The original sample included several large donors.
[50]Results from the other estimations are available on request.

	Year					
Year	0.30	***	0.02	0.32 ***	0.10	0.29
	(0.08)		(0.39)	(0.07)	(0.34)	(0.30)
Tax1 CR	0.19			-0.64		
	(0.57)			(0.60)		
Tax2 CR	0.28			0.05		
	(0.63)			(0.65)		
Tax1 SR			-0.05		-0.24	
			(0.68)		(0.60)	
Tax3 SR			-0.13		0.09	
			(0.66)		(0.58)	
Const	-3.61	***	1.25	-6.21 ***	-3.13	-6.36
	(1.12)		(2.37)	(1.19)	(2.44)	(2.75)
No. of obs.	1665		504	1665	504	254
Log-likelihood	-608.92		-107.12	-611.94	-139.33	94.57

Standard errors are in parentheses.
*** denotes significant difference at 1%, ** at 5%, * at 1%
Tax1 CR denotes the first tax period in the CR, 2001-2003, Tax2 CR, 2004.

Tax1 SR denotes the first tax period in Slovakia, 2001, Tax3 SR the last one, 2004. See Table 1 for details.

The results summarized in Table 4 offer some support for Hypothesis 3 that big firms are more active in philanthropy. We observe that in both countries size of the company (measured by the number of employees and sales) increases engagement in both sponsoring and giving. Sales have similar effect on both; the number of employees increases giving more than sponsoring. This result is in line with the profit maximization hypothesis because a higher number of employees means higher importance of labor force for profitability, thus, greater pressure on responsible behavior of the corporations towards their employees. Number of employees has a very strong positive effect on giving in Slovakia, suggesting that small companies are involved in giving significantly less often than those in the Czech Republic. This result hints that the philanthropic culture, particularly among small firms, is not as developed in Slovakia as it is in the Czech Republic. Firms with few employees, though, do sponsor and participate in assignation. In summary, small firms seem to be interested in philanthropy, the problem may be in the lack of resources.

The effect of industry, Hypothesis 5, differs between the two countries: in Slovakia firms in retail are the most active in both sponsoring and giving. We do not observe any difference in the participation of firms in manufacturing and services. In the Czech Republic, however, we observe no difference between the industries in giving, but firms in services (the omitted category) are the most active in sponsoring. Thus, we observe that industry indeed affects the charitable behavior of companies though we do not find support for Hypothesis 5 that firms in services participate more with the exception of sponsoring in the Czech Republic. These results suggest that despite the closer link between the firms in services and their customers and the low mobility of these companies, stakeholders lack either power or willingness to induce engagement in philanthropy.

Results regarding the level of operation, Hypothesis 6, show opposite results in the two countries: in Slovakia, firms at the international level participate significantly more in both sponsoring and giving; in the Czech Republic we observe no difference in sponsoring, but local and regional firms participate more in giving. This again suggests that Slovak philanthropic culture lags behind that in the Czech Republic, with philanthropy still being a

domain of large and internationally operating firms. In addition, stakeholders in Slovakia seem to be less powerful, unable to induce participation of firms at the local levels.

The effect of ownership is explored in three categories: foreign, mixed, and domestic. We find weak support for Hypothesis 4 in the Czech Republic, foreign firms engage more in giving. But, Hypothesis 4 is not supported in Slovakia, foreign firms do not differ from firms with other ownerships in giving and they participate less in sponsoring and assignations. This result is unexpected, it shows that foreign firms lag in sponsoring but we cannot conclude that they are the leaders in giving. The lack of difference in giving in Slovakia may as well be caused by the fact that all companies are similarly inactive rather than active. These results, however, do not yet show the extent of their engagement.

The effect of being located in the capital, Hypothesis 7, is negative: firms in the capitals engage significantly less in philanthropy than firms in the other regions. We cannot distinguish what drives this result, whether free riding, as the number of firms in the capitals is higher than in other regions,[51] or the anonymity of the city, which could make it more difficult to establish partnerships.

Finally, we observe a strong positive impact of time on participation in the Czech Republic. This trend is missing in Slovakia. We observe no significant impact of the changes in tax rates contrary to our expectations particularly in Slovakia (Hypothesis 1), though the missing growth in Slovakia offers partial support for the negative impact of these changes.[52]

5.3.2. Expenditures on philanthropy

Tables 5 and 6 summarize results from the main specifications for the expenditures on sponsoring and giving.[53] To account for the potential selection bias we include among the explanatory variables Heckman's lambda obtained from the participation equations summarized in the previous section. As in the previous analysis we merge the two Czech samples and analyze Slovakia separately. We used the Hausmann test to compare the suitability of the fixed and random effects, the test rejected the null hypothesis of independence of the firm specific effects and error term in both specifications; thus, we estimated FEM with the results summarized in Table 5.[54] In order to test the hypotheses regarding the observed firm characteristics we estimated a random effects model on the residuals from the fixed effects regression as described in the methodology section above. Results from these estimations are summarized in Table 6.[55]

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[51]www.czso.cz, www.statistics.sk

[52]We suspect that corporate philanthropy in Slovakia has similar 'potential' to grow as in the Czech Republic, due to the favorable economic evolution, GDP growth, as well as development of infrastructure supporting corporate philanthropy as summarized in section 3 above.

[53]We have no information on expenditures on assignations. The reason was that assignations are fixed to be below 2% of due taxes with no incentives to assign less than 2%.

[54]We also tested for suitability of panel data estimation versus stacked pooled data estimation, the test rejected the pooled estimation.

[55]We provide only results from the fixed and random effects, the results from the control treatments (interval regression, seemingly unrelated regression) did not differ significantly and are available on request.

Table 5: Expenditures, fixed effects specification with correction for selection bias

	Sponsoring		Giving	
	CR	SR	CR	SR
Sales log	0.41	-0.06	0.45 ***	0.03
	(0.28)	(0.26)	(0.16)	(0.42)
Year	0.08	0.09	0.06	-0.05
	(0.07)	(0.08)	(0.06)	(0.16)
Tax1 CR	0.03		-0.17	
	(0.17)		(0.21)	
Tax2 CR	0.09		-0.001	
	(0.14)		(0.16)	
Tax1 SR		0.22		0.15
		(0.16)		(0.31)
Tax3 SR		-0.17		0.06
		(0.17)		(0.28)
Inv. Mills	-1.18 *	-2.02	-1.18 ***	-1.38
	(0.70)	(1.61)	(0.42)	(0.99)
Const	1.27	4.73	0.63	3.94
	(3.11)	(3.49)	(1.77)	(5.18)
Adj. R^2	0.59	0.9	0.67	0.76
No. of obs.	1062	312	1183	229

Standard errors are in parentheses.
*** denotes significant difference at 1%, ** at 5%, * at 1%

First, we observe that the coefficients at Heckman's lambda are insignificant in Slovakia, i.e., the selection bias in this case does not present a major hurdle. Therefore, in the decomposition regression below we report results from the models without correcting for the selection bias.[56] The coefficients in the fixed effects specification are insignificant even though the explanatory power of the models is rather high (as measured by the *Adjusted R^2*). The main explanatory power, therefore, comes from the firm specific characteristics, which we cannot observe in this specification but explore below in the regression on residuals.

We do not identify any significant differences either between giving and sponsoring or between the two countries. Sales have no effect on the expenditures on philanthropy with the exception of giving in the Czech Republic. Thus, if a firm chooses to participate in philanthropy then its expenditures do not depend on its size and, possibly, financial situation.[57] We do not observe any time trend in any of the specifications. This is caused by the fact that growth already appears in the participation decision—once a firm decides to participate in philanthropy its expenditures remain stable in real terms.

We fail to support Hypothesis 2, that there is a difference in the effect of tax rate on sponsoring and giving because the tax rate does not have a significant effect on either of the amounts spent. Moreover, observing no significant coefficient at *Tax3 SR*, a dummy variable capturing the 2004 change in the legislation, we fail to support Hypothesis 1 that giving in Slovakia decreased significantly after this change. The only evidence we have to this end is

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[56]We do not provide results from the fixed effect estimation as they are similar to those provided.
[57]Sales are positively correlated with profitability.

the missing growth of participation (contrary to the Czech case) described in the previous section.

To test the organizational theories' hypotheses we turn to the random effects model estimated on the residuals from the fixed effects regression, Table 6.[58] When looking at the results it is necessary to keep in mind that we analyze only the information for firms that gave or sponsored (in at least one year) and reported the information on their sales.

Size, measured by the *Number of employees*, has no effect on the expenditures on sponsoring. In giving, however, we observe an opposing effect in the two countries: in the Czech Republic small firms give more than firms with many employees, the opposite is true in Slovakia. Results are in line with those regarding participation: participation in sponsoring increases in the financial size of the company, the number of employees has positive effect only in the Czech Republic. Participation in giving, on the other hand, increases more significantly as the number of employees increases. The effect is stronger in Slovakia, where a high number of employees increases also expenditures. This result further supports the hypothesis that the development of philanthropic culture, particularly among small firms, is lagging in Slovakia.

The impact of ownership differs between sponsoring and giving: while ownership has no effect on expenditures on sponsoring, foreign owned firms spend significantly less than the domestic ones on giving. Thus, foreign firms are not the leaders in philanthropy. In addition, foreign owners are more profit oriented, preferring sponsoring to giving as a cheaper and simpler tool of support. To further test this hypothesis in Slovakia we added additional explanatory variables to the regression—interaction terms between the year 2004 and ownership, as the change in 2004 was expected to have the strongest effect on philanthropy. Results are listed in the third column of Table 6 for both sponsoring and giving. The results, indeed, show support for the expectation. While the domestic firms did not change their behavior significantly in 2004, foreign firms did—they increased expenditures on sponsoring, the effect on giving is negative but not significant. This result suggest that sponsoring and giving are substitutes and the profit-oriented firms shift towards the cheaper one.

Table 6: Expenditures, decomposition of firm effects

	Sponsoring			Giving		
	CR	SR	SR 2	CR	SR	SR 2
Number of employees	- 0.09	0.25	0.25	-0.57 ***	0.54 *	0.54 *
	(0.12)	(0.27)	(0.27)	(0.16)	(0.28)	(0.28)
Manufacturing	0.30	0.72	0.72	-0.02	-0.98 **	-1.0 **
	(0.22)	(0.52)	(0.52)	(0.29)	(0.42)	(0.42)
Retail	-0.07	0.57	0.58	-0.54 *	-0.81 *	-0.84 *
	(0.27)	(0.59)	(0.59)	(0.31)	(0.45)	(0.44)
Level of operation	0.42 ***	-0.61 *	-0.60 *	-0.26	-0.34	-0.34
	(0.14)	(0.33)	(0.33)	(0.18)	(0.24)	(0.23)

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[58]The estimations in Slovakia are on residuals from fixed effects regressions without correction for the selection bias.

	Col1		Col2	Col3	Col4		Col5		Col6	
Foundation	0.58	**	-0.001	-0.007	0.97	***	-0.64		-0.64	
	(0.24)		(0.96)	(0.95)	(0.37)		(0.81)		(0.81)	
Capital	-0.12		-0.61	-0.61	0.56	*	1.09		0.94	
	(0.27)		(0.48)	(0.48)	(0.31)		(0.94)		(0.85)	
Foreign	-0.45		1.36	1.15	-1.11	**	-1.72	*	-1.46	
	(0.30)		(0.98)	(0.97)	(0.45)		(0.99)		(0.91)	
Mixed	-0.26		-0.20	-0.32	-0.28		-0.57		-0.80	*
	(0.26)		(0.52)	(0.52)	(0.36)		(0.39)		(0.41)	
Foreign 2004				0.71 ***					-0.80	
				(0.20)					(0.58)	
Mixed 2004				0.33 ***					0.67	
				(0.11)					(0.49)	
Domestic 2004				-0.15					-0.13	
				(0.14)					(0.15)	
CR II	-2.03	***			-2.50	***				
	(0.21)				(0.24)					
Const	-0.62	***	0.48	0.51	2.07	***	0.76		0.82	
	(0.49)		(0.93)	(0.95)	(0.60)		(0.78)		(0.79)	

Standard errors are in parentheses.
*** denotes significant difference at 1%, ** at 5%, * at 1%, (*) at 11%.
SR 2 denotes additional specification to examine the impact of the change in 2004 on different ownership forms.

We observe no difference in spending on sponsoring among industries; firms in retail, and in Slovakia also those in manufacturing, spend less on giving. Thus, we partially support Hypothesis 5 that firms in services give most (though they give least often), followed by firms in retail and manufacturing. The difference between sponsoring and giving may result from their different nature, giving being a result of stakeholders' pressures and their closeness to the company, sponsoring being aimed at attracting customers, similar to advertising.

The level of operation, Hypothesis 6, matters only for the expenditures on sponsoring. In the Czech Republic regionally operating firms spend more on sponsoring, in Slovakia they spend the least. We observe no differences in giving. The absence of a difference in expenditures between firms at the international and local level is positive, though, we have to keep in mind that the local firms in Slovakia do participate significantly less often.

Regarding Hypothesis 7, we observe that firms in Prague spend more on giving than firms in other regions. We observe no other difference. We are not able to identify the specific motives for such behavior; one possible reason is the positive correlation between profitability and location in Prague. As we do not control for profits in the specification, location might capture some of this effect.

We observe that levels in the second sample are significantly below the levels in the old one. The Chow test of similarity of coefficients failed to reject the hypothesis of no difference, the only difference is in the level captured by *CR II*. This is possibly caused by the non-random

choice of some participants in the original Czech survey, the important donors. Even though the additional companies were chosen so that the sample would become representative, inclusion of these major donors may cause the upward bias in the level of giving.

To address the problem of the bad structure of the first interval in the original Czech sample we estimated the same specifications using common intervals, in addition, we did not use the middle point of the first interval but the average of the observations obtained from the additional samples. This estimation was used to observe the effect of the merging of the first interval. The results from this control treatment did not differ significantly from the results presented above, with one exception: the coefficients at two tax dummies (Tax2 CR, Tax1 SR) were significant.[59] This difference suggests that merging the intervals may emphasize differences that would otherwise remain unobservable. On the other hand, the large intervals were not created with any theory in mind, thus, the observed effect is likely to be artificial choosing another merging of intervals would probably lead to a different result. Nevertheless, the obtained results offer some support to the hypothesis that there is a difference in the motivation for sponsoring and giving.

5.4. Discussion

In this section we briefly discuss the problems with the performed analysis and describe what would an ideal data set look like.

The official source of data on corporate philanthropy would be the tax office, which obtains the information on corporate giving when firms claim deduction on their donations. There are, however, several problems with such data. Most importantly, these data are usually not available at the individual firm level, but only in aggregates. But, even if it was possible to obtain the individual data, they would not provide the complete picture of corporate philanthropy—first, they do not capture sponsoring, which enters the books as costs within the broader category of spending on promotion. In addition, evidence from the U.S.A. shows that small firms in particular often do not claim deductions on their donations, biasing the picture further (Muirhead, 1999).

Therefore, it is necessary to collect the data using a survey, a method with several drawbacks that need to be accounted for. The first problem arises with sampling: data collected in surveys are subject to sample selection such that information is only available for firms that agree to participate. This problem can be addressed using methods such as the Heckman two-step procedure (Wooldridge, 2002), which imposes additional restrictions on estimation. Ideally, to ensure identification it is necessary to have additional explanatory variables, otherwise the estimation hinges on the assumption of normality of the distribution and the fact that the selection estimation is nonlinear.

Quality of the collected data poses another problem. Firms are often not very forthcoming in reporting the expenditures on sponsoring or giving. This bias though seems to play only a minor role in our study: once firms agreed to be surveyed they were willing to report the specific amounts as well. In the Slovak sample 63% to 70% of the firms that gave were willing to report the specific amount given (the responsiveness varied over time). The rate was even higher for sponsoring, on average 75% reported also the specific amount.

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[59]Results from this estimation are available on request.

Responsiveness may vary with the survey method used, only 55% reported the amounts in survey reported in Marček & Dluhá (2002).

There remains a significant fraction of firms that prefer to report the information in intervals. Here, it is necessary to design the structure of the reporting intervals so that the survey does reveal as much information as possible. Ideally, the survey should be designed in steps. First, there should be a preliminary search for the distribution of giving. Then, the intervals for the actual survey should be designed to best capture the information obtained.[60]

An important problem with the present data set is the promised anonymity of the participating subjects, which makes their later identification (even for research purposes) impossible. Thus, it is necessary to ensure sufficient identification of subjects to enable merging with additional information from other data sources. It is possible, to some extent, to substitute this by asking additional questions in the survey, but, it may increase the costs of surveying. In addition, it is always valuable to be able to compare data from different sources to ensure their quality.

6. CONCLUSION

In this study we analyzed corporate philanthropic behavior of firms in two transition countries, Czech Republic and Slovakia using survey data of 739 firms in the CR and 152 in Slovakia. The results reveal that despite the long common history of the two countries there are significant differences in the current philanthropic behavior of firms. Namely, firms in the Czech Republic give more often and give significantly more than firms in Slovakia. In addition, giving in Slovakia is more prevalent among large firms operating at the international level, while in the Czech Republic smaller, regional firms also participate. These differences between the countries seem to be caused by the differences in profitability, further enforced by missing 'leaders' in Slovakia, i.e., large Slovak firms give less than large Czech firms. The differences in sponsoring are of a smaller extent.

One of the major questions of this study was the impact of taxes—did the decreasing corporate tax rates affect corporate philanthropy? If we looked only at the significance of tax variables the answer would be no, none of the changes had significant impact on either sponsoring or giving. But, these results need to be considered with caution because the changes in the tax rates in the Czech Republic were rather minor. In Slovakia, the changes were more significant, in particular the change in 2004. However, even this change does not have significant impact on the giving. Unfortunately, the insignificance of this coefficient may be caused by the nature of the data which does not allow to clearly distinguish the year specific effects from the impact of the changes in the tax rate. The fact that while in the Czech Republic we observe a significant growth in participation in both sponsoring and giving and participation in Slovakia has remained stable despite significant economic growth and activities in support of corporate philanthropy suggests that the impact of the tax change in the year 2004 may be negated by the potential growth.

To further evaluate the impact of the tax change in 2004 in Slovakia we analyzed it separately for firms with different ownership. We observed that while the change had no effect on firms with domestic or mixed ownership, it had a significant effect on firms with foreign owners

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[60]We implemented this procedure in the additional surveys. We obtained the data for the CR after they have been collected, i.e., we were not able to influence the design of this survey.

that shifted their support to sponsoring in 2004, suggesting that foreign firms are better in optimizing their tax benefits than domestic companies. In general, though, we did not find support for the hypothesis that firms with foreign capital give or sponsor more. We observed that foreign owned firms in the CR give more often, but their expenditures are below those of other firms. Participation of foreign owned firms in Slovakia is significantly below participation of domestic firms in sponsoring. Their expenditures in sponsoring are similar, but they are significantly below those of domestic firms in giving.

We failed to support our hypothesis regarding higher engagement of firms in services with the exception of sponsoring in the CR. Their expenditures in giving, however, are the highest in both countries. This may result from the fact that profitability of firms in services is the lowest when compared to the other industries, having negative effect on participation. On the other hand, once they start to engage in philanthropy they, possibly because of their close relationships with stakeholders, give more.

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CREATING SUSTAINABILITY COMPETENCES THROUGH REPORTING IN CROATIA

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1. INTRODUCTION

1.1. Corporate responsibility in context

Successful companies in the new economy no longer frame their activities exclusively in terms of the goal of profit maximization. Instead, they take account of the total impact of their activities on society and on the environment, in terms of the 'triple bottom line' of people, planet and profit (Harrison, 1997). These companies are no longer oriented only to shareholders in the narrow sense but, rather, seek effective engagement with all of their stakeholders, both internal, including their employees, and external, including their suppliers and consumers. They are committed to a strategic management approach which moves from short-term interactions based on expediency and opportunity, to longer-term partnerships based on shared values, mission, and objectives.

In recognition that long-term survival is increasingly concerned with the management of risks and the protection and enhancement of reputation (Lewis, 2003; Sagar and Singla, 2004), such companies build long-term relationships with significant publics, including policy

makers, journalists, investors, business associations, consumer and environmental protection groups, other non-governmental organizations, and front-line communities. The see their 'license to operate' in terms of their stated commitments to, and performance in, the fields of human rights, labour standards, environmental stewardship, community development, consumer protection, corporate governance, stakeholder consultations, and the screening of suppliers on ethical grounds.

Whilst 'modern' notions of responsible and ethical business can be traced back over fifty years (Carroll, 1999; 268), the fields of 'corporate social responsibility', 'sustainability' (Le Jeune, 2004), 'corporate citizenship' (Habisch, 2003) and 'stakeholder engagement' (Haas, 2003) have evolved rapidly in the last decade, reflecting increased scrutiny of companies' practices, and demands for more responsible, accountable, and transparent behaviours (Waddock; 8). In a sense, the 'raising of the bar' of corporate responsibility by bringing it into the public domain (Klein, 2001; ch. 17) has had a range of effects in terms of companies' commitments above and beyond shifts in the legal and regulatory framework. Not the least important of these has been a more 'holistic' sense of corporate responsibility replacing a rather narrow concern with corporate giving to 'good causes'. Corporate philanthropy has, itself, been changed in this process, to be more concerned with longer-term partnerships (Saiia, Carroll et al, 2003). In addition, sustainability practices are now more likely to be integrated into the overall governance of a company than to be the responsibility of one department or to be seen only as a part of the company's public relations efforts.

Increasingly, companies are seizing the opportunities which responsible behaviour brings in terms of building consumer loyalty, being an employer of choice, retaining a skilled and motivated workforce, attracting quality investors, introducing clear, coherent and effective management structures and business procedures, and maintaining a strategic focus. Indeed, almost coming full circle, it is now suggested that responsible behaviour is correlated positively with corporate financial performance (Little and Little, 2000; Moore, 2003) through a mixture of operational and ecological efficiencies, stimulating a culture of innovation, recognizing new market opportunities, and enhanced reputation and brand loyalty.

None of this is inevitable, however. There is a need to situate companies' behaviour in its wider social, institutional and historical context. The structural and cultural settings in which companies operate vary considerably across space and time, and set limits, or act as constraints, to social action. Progress over time can be seen in terms of Dunphy *et al's* 'three waves' of sustainability from a first wave in which companies move from 'rejection', through 'non responsiveness' to 'compliance'; through a second wave of 'efficiency' and 'strategic pro-activity'; to a transformative third wave of a full commitment to sustainability (Dunphy *et al*, 2003; 15-16). The danger here is that this movement is seen as evolutionary, path dependent and automatic, regardless of context. In fact, the model itself seeks to bring agency back in, since it is the choices and actions of key people within companies, termed 'the dominant elite' (ibid.) which makes sustainability possible. The development and maintenance of sustainability is likely to be a complex product of structures, institutions, organizational culture and human agency, perhaps best expressed in Randell's 'cross-level' framework in terms of the interaction between institutional environment, organizational identity and champions' tactics (Randell, 2002; 66).

Dunphy *et al* (2003) consider that progress towards sustainability requires transformational change in organisational culture and behaviours, with sustainability becoming central to vision, strategy and action. Respected leaders who 'walk the talk' are critical in this regard.

Their emphasis on role model leadership is widely endorsed (Kotter, 1996; Binney and Williams, 1997; Elkington, 2001; Courtice and Swift, 2002; Holliday, Schmidheiny and Watts, 2002; Doppelt, 2003; Lawson and Price, 2003; Grayson and Hodges, 2003; Harvard, 2005; Kellerman, 2006). New kinds of management competences, which can be termed 'sustainability competences', combining attitudes, values, knowledge, skills and actions, are needed to develop and maintain participatory processes, effective, empowering governance structures, and incentives and feedback loops to institutionalise and progress change. Sustainability competences are, therefore, at the heart of a modern 'learning organisation' (cf. CSR Europe, 2003).

Sustainability is, perhaps, best conceived sociologically as a field (cf. Bourdieu, 1977) composed of relatively autonomous sets of practices, institutions, and techniques, and peopled by managers, consultants, academics, activists and policy makers who become 'authorised agents' (Shamir, 2004; 671). These policy fields create a space for new sets of discursive strategies in which critical pressures are deflected and redefined as opportunities. Whilst all fields, to an extent, technicise and depoliticise complex power relations, the more interesting question becomes the degree of 'fit' or lack of it between sustainability and other kinds of management competences, in the context of an uneasy tension between creative innovation and 'tick box' type management systems.

1.2 Sustainability Reporting

Just as the 'bottom-line' of profit has required ever more sophisticated kinds of financial reporting, the 'triple bottom line' is not complete without reporting on companies' environmental and social impacts and activities. Reporting in this area began in earnest only recently. As more companies report there has, also, been a trend towards integrated sustainability reporting, replacing the previous practice of separate environmental reports, which, themselves, have a longer history, and social reports. In addition, as with financial reporting, a number of reporting standards, frameworks and indicators have been developed to enable companies to report on their sustainability practices in a way which allows for comparison over time and across companies and sectors. Reporting is, in many ways, the most important link in the chain in terms of communicating performance and intentions to stakeholders in a transparent and accountable form.

Hence, the Global Reporting Initiative, now the generally accepted framework for sustainability reporting, defines sustainability reporting as "the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development" (GRI, 2006; 3). The recently issued third version of their reporting guidelines applies a sophisticated, holistic framework for reporting in terms of three types of disclosures: strategy and profile; management approach; and performance indicators; together with a wide range of reporting principles including materiality; stakeholder inclusiveness; sustainability context; completeness; balance; comparability; accuracy; clarity; and reliability (GRI, 2006; 8 – 17). The framework continues to allow for self-declaration in terms of the level of reporting used, combined with preference for external assurance by the GRI or another quality assurance provider. The new version of the GRI guidelines includes seven core and two additional economic performance indicators; seventeen core and thirteen additional environmental performance indicators; and twenty one core and ten additional societal performance indicators in the fields of labour practices and decent work, human rights, and society.

The latest triennial survey of corporate responsibility reporting by KPMG (2005) covers the global top 250 companies in the Fortune 500 index (G250) and 100 top companies in 16 countries (N100). It shows a considerable increase in reporting since 2002, with 52% of G250 and 33% of N100 companies issuing separate reports in 2005, compared to 45% and 23% respectively, in 2002. A more dramatic increase occurred in terms of the proportion of companies issuing full sustainability reports, from 14% to 68% of G250 companies and from 12% to 48% of N100 companies (KPMG, 2005; 9). Reporting is most common in Japan and the UK, and in industrial sectors with a relatively high environmental impact. G250 reporters most often cited economic and ethical factors as driving reporting, including innovation and learning, employee motivation, and risk management and reduction. The survey revealed that social and economic reporting remains 'superficial' compared to environmental reporting, and that both corporate governance and stakeholder consultation remain under emphasised (ibid; 5).

Thus far, there has been greater emphasis on the 'what' and the 'how' of sustainability reporting, and much less attention either to the 'why' or, even more importantly, to the 'what for', in terms of the value added of reporting. Research by CSR Europe and Accountability addresses the impacts of reporting framed in terms of six hypotheses, namely: that context matters; that pressure, strategy and values drive reporting, with pressure less important over time; that reporting aims to change perceptions but that changes in stakeholder behaviour are harder to assess; that the 'visibility' of reporting diminishes over time as the technical quality improves; that beyond a 'critical point', stakeholder perceptions can only be changed by changes in organizational culture and business systems; and that effective reporting requires diverse pathways for diverse external stakeholders (CSR Europe and Accountability (2002); 7 − 8).

At the level of theory, Zambon and Del Bello have attempted to suggest how the issuing of a dedicated sustainability report plays a subtle active role, both by substantiating and increasing the significance of certain key concepts, and in terms of affecting the company's actions and building perceptions amongst managers and stakeholders about the company's performance (Zambon and Del Bello, 2005; 134 − 135). They suggest that "it is the ensemble of … discretional choices that makes it possible for the stakeholder oriented reporting to translate concepts and implemented activities into company-specific narratives, structures and data, thus permitting this document to play an active role in the management-driven representation of stakeholder responsible ideas and behaviours". (ibid; 139.)

2. SOCIAL RESPONSIBILITY AND SUSTAINABILITY REPORTING IN CROATIA

2.1 CSR in the Croatian Context: legacies, transition, and institutions

Whilst there is a massive literature on corporate social responsibility in the developed world (see above), and an emerging literature regarding social responsibility in the developing world (UNIDO, 2002; Utting (ed.), 2002; Nelson and Prescott, 2003; Whitehouse, 2003), there is still very little research or analysis on CSR in the post-communist transition countries of Central, Eastern and South Eastern Europe (IBLF, 2002). In any case, this literature is of limited use in exploring the development of CSR in Croatia since the broad transition context has to be understood alongside the specificities of war and independence, on the one hand, and the legacy of Yugoslav 'self management' socialism, on the other. One of the first, and

still most often cited, surveys of CSR in Croatia (Bagić, Škrabalo and Narančić, 2004) suggests that the specific 'worker's self-management' form of Yugoslav socialism, notwithstanding its rhetorical function and noted inefficiencies, introduced the value and practice of participation into corporate managerial processes, such that "the current endorsement of teamwork and stakeholder consultations in the Croatian business community seems to be a combination of contemporary Western approaches to quality management and corporate governance with this older legacy" (ibid; 28).

In part as a result of war and the break-up of Yugoslavia, Croatia experienced a kind of 'delayed' or 'extended' transition, with war lasting from 1991 to 1995; full territorial integrity not achieved until 1998; and the full consolidation of democracy not achieved until the election of a more internationally open coalition government in January 2000, committed to the goal of EU membership. The transition from socialism to capitalism, however, began in 1991, under conditions of political instability, with a wave of privatization labelled by a leading Croatian economist as "legalized robbery through different forms of fictitious or politically dictated transactions" (Baletić, 203; 287). Croatia, not unlike earlier transitions in Latin America, and akin to parts of South Eastern Europe and the former Soviet Union, developed a kind of 'crony capitalism' which was "characterized by the dominance of insider interests, extreme clientelism, non-market based financial sector allocation, and a close link of the state and government with entrepreneurs and the financial sector" (Bićanić. n-d; 1), leading to "a large institutional and democratic deficit" (Bićanić and Franičević, 2003; 16).

The dismantling of 'crony capitalism' in the new millennium had to deal with this legacy in terms of the dubious reputation and low public esteem and legitimacy of the 'early winners' of privatization, many of whom exhibited a rather curious form of charismatic business leadership, in the cause of 'speculative entrepreneurship' which tended to crowd out 'productive entrepreneurship' (ibid; 19), and led to "arbitrariness, inefficiencies and various forms of ethically questionable behaviour" (Račić and Cvijanović, 2004; 429). The private sector still only accounts for some 60% of Croatia's GDP, little changed since the late 1990s (World Bank, n.d.), and there is considerable industrial concentration, with the top 400 companies, representing 0.6% of all registered companies in Croatia, accounting for 51.5% of pre-tax profits, 49.7% of gross revenue, and 33.4% of those employed in 2005 (Privredni vjesnik, 2006; 14; Note: the survey does not include the banking and financial services sector).

There remains a lack of a clear and consistent enabling legislative and policy environment for socially responsible business practice in Croatia with little dialogue, beyond the 'formal and tokenistic' (Gregory and Tafra, 2004; 14), between businesses and government such that there is a rather *ad hoc* combination of over-regulation in some spheres of activity and under-regulation in others. In addition, this 'regulatory deficit' is compounded by a 'watchdog deficit' with little or no tradition of organizations in civil society systematically monitoring the actions and activities of Croatian businesses (Bagić, Škrabalo and Narančić, op. cit; 29 and 56-57), although a significant number of developmental NGOs are involved in cross-sectoral partnerships with businesses. The survey pointed to company ownership structure, size, industry sector, and leadership capacity as key factors affecting sustainability performance in Croatia, suggesting that the main areas of good practice could be found in corporate giving and community involvement, on the one hand, and core business practices, including quality standards, human resource development, and eco-efficiency, on the other (ibid; 34-36).

Interestingly, a second edition of the report, some two years later (Bagić, Škrabalo and Narančić, 2006), charts a paradigm shift, from low level attention to the issue of CSR to the now almost ubiquitous reference to 'social responsibility' in business conferences, in sections of the media, and in training activities (ibid; 6). Crucially, there has also been a concomitant expansion in the size, sophistication, and impact of, and inter-relationship between, institutional support structures for corporate social responsibility in the same period. The Croatian branch of the World Business Council for Sustainable Development (HRPSOR) was founded in 1997 by leading Croatian businesses as a membership organization to promote sustainable development in the private sector. It now has thirty three members and, under a dynamic new leadership, has shifted its focus towards more holistic understandings of sustainability and, in particular, to the promotion of sustainability reporting based on the GRI indicators (http://www.hrpsor.hr). In addition, following a large multi-stakeholder conference and set of activities under the labels 'Agenda 2005' and 'Agenda 2006', the Croatian Chamber of Commerce, following its publication and promotion of a Code of Business Ethics, has established a Community for Corporate Social Responsibility within its Sector for Industry. The new preface to the CSR survey also notes a large number of, mainly externally-funded, time-limited, projects and programmes promoting CSR in Croatia, involving, amongst others, UNDP and UNIDO, AED and USAID, IBLF, the Croatian Association of Business Consultants, and MAP Savjetovanja.

Whilst corporate giving remains the most visible of companies' CSR activities, the last two years have seen the development of more strategic approaches in this area, including an increase in public grant competitions, the establishment of Foundations, and more long-term partnerships, such as those involving UNICEF and a range of leading Croatian companies (http://www.unicef.hr) . The main findings of the 2003 survey on CSR in Croatia, however, remain relevant today, namely that: "Although different aspects of CSR are advocated and implemented in the Croatian business sector, most of them are not strategically structured, and existing practices are not regularly reported" (Bagić, Škrabalo and Narančić, 2006; 7). The 'sustainability field' in Croatia has been strengthened, in terms of inter-relationships within the field, and now consists of a core of business leaders, academics and researchers, consultants, international actors, and local NGO activists engaged in a large number of inter-linked activities. The impact of the field on businesses outside it, however, has been slower to develop and has not yet, we would argue, reached a critical 'point of no return' in which even the majority of the larger enterprises in Croatia consider sustainability practices as a part of their 'license to operate'. In addition, the impact of the field on small and medium enterprises remains rather limited.

2.2 Sustainability Reporting in Croatia: leadership in practice

As might perhaps be expected, what is true for CSR and sustainability in general in Croatia is even more the case in terms of reporting which remains significantly under-developed. HRPSOR, which has led the campaign to promote reporting in Croatia, lists only ten companies which have reported on their environmental and/or social performance in stand-alone reports. As Table 1 below shows, seven of the ten are HRPSOR members, and two others, INA and HEP, are the two leading Croatian companies in terms of revenue. The third non-HRPSOR member company listed, *Petrokemija d.d.*, issued a report on its environmental performance some time ago (the link from HRSPOR's web site no longer works), but has not maintained or expanded its reporting (the company's web site shows only limited environmental data). Only five of the ten reporters have used the GRI guidelines, beginning with Coca-Cola in 2003 and INA in 2004, joined in 2005 by Zagrebačka Banka with its social

report. Coca-Cola issued the first full sustainability report in 2005, using the guidelines, to be joined a year later by Podravka and, to a limited extent, by PLIVA.

Table 1. Companies' Environmental, Social and Sustainability Reporting in Croatia

Company	Industrial Sector	Ranking 2005	2005 Revenue in HRK***	No. of employees 2005	Types/titles of reports (date published)	GRI Used?	HRPSOR member (from)
Coca-Cola Beverages Hrvatska d.d.	Non-alcoholic beverages	70	863,012,234	796	Environmental (2002) Social (2003) Sustainability (2005)	Yes (Social and Sustainability)	Yes (2000)
Hartmann d.o.o.*	Packaging materials	-	92,000,000	180	Sustainability 2004 (2005)	No	Yes (2006)
Hrvatska Elektroprivreda d.d.	Energy	2	9,393,082,901	413	Environmental 1999-2000 (2001) Environmental 2001-2002 (2003) Environmental 2003-2004 (2006)	No	
Holcim (Hrvatska) d.o.o.	Construction materials	147	441,676,713	240	Sustainability 2004 (2005)	No	Yes (1997)
INA – Industrija nafte d.d.	Oil	1	20,050,286,405	10,057	Environmental 96-97 (1998) Environmental 1998 (1999) Environmental, Health & Safety 2002 (2003) CSR 2003 (2004); CSR 2004 (2005); CSR 2005 (2006)	Yes (CSR 2003-)	No
LURA d.d.	Food industry	14	2,063,950,219	1,556	Environmental 1998 (1999) Environmental 2001 (2002) Environmental 2002 (2003) Environmental 2003 (2004)	No	Yes (1998)
PLIVA Hrvatska d.o.o.	Pharmaceuticals	9	3,100,693,499	1,990	Sustainable development 2003 (2004); Sustainable development 2004 (2005); Sustainable development 2005 (2006)	Yes (latest report partly)	Yes (1997)
Podravka d.d.	Food industry	21	1,799,633,636	4,005	Sustainable development 2003 (2004); Sustainable development 2004 (2005); Sustainable development 2005 (2006)	Yes (latest report)	Yes (1997)
Petrokemija d.d.	Fertilizer production	24	1,645,204,902	2,695	Environmental 2003 (2004)	No	No
Zagrebačka banka d.d.**	Banking and finance	-	1,098,000,000	4,400	Social 2004 (2005)	Yes (Social)	Yes (1997)

* Information from company press release, http://www.hrpsor.hr/upload/hartmann_cert_dop.pdf
** Company financial report for 2005., http://www.zaba.hr/info/abo/Investitor_hr/financijska.htm
*** €1 = 7.35 HRK (HNB rate 28.12.2006)
Source: Privredni vjesnik, "400 najvećih Hrvatskih tvrtki u 2005.", no. 3449., Croatian Business Council for Sustainable Development, www.hrpsor.hr

Comparing the reports shows a wide variation, even amongst those using the GRI guidelines. In particular, this variation can be found in terms of the use, or not, of external verification and in the degree of detail regarding priorities for the future and monitoring and follow-up of these. In addition, issues of stakeholder consultation and of corporate governance structures and risk management arrangements, receive, at best, cursory treatment, itself, as noted above, a reflection of wider reporting trends. Reporting companies are concentrated in sectors with a high environmental impact (such as energy, cement, packaging, and fertilizers) and/or in highly competitive sectors (the food and drinks industry). Thus far, only one bank has produced a social report.

Research carried out by the Zagreb School of Economics and Management in 2005 (Šulenta, Koričan and Mušura, 2006) surveyed the on-line and annual reporting of forty eight companies, including all those listed on one of two Croatian stock exchanges, together with public utility companies and leading banks and financial institutions. Using a methodology developed by the East-West Management Institute, companies' performance is rated against what a foreign investor would want to know about corporate governance and CSR activities. Five of HRPSOR's ten reporters (Coca-Cola, Hartmann, Holcim, Lura, and Petrokemija) are not included in the survey.

The top five companies in terms of CSR reporting, combining scores for corporate governance, environmental and social reporting, were: HEP (19/30 points); INA (19 points); Ericsson Nikola Tesla (18 points); PLIVA (18 points) and T-HT Hrvatski Telecom (12 points). Three of these are HRPSOR reporters and one other (Ericsson Nikola Tesla) is a founder member of HRPSOR and widely recognized for its leadership on CSR. Two other HRPSOR reporters, Podravka and Zagrebačka Banka, appear in the top ten in terms of on-line reporting, in second and joint fifth place, respectively. The report notes general improvement in reporting between 2004 and 2005, including the issuing of stand-alone CSR reports and the use of the GRI guidelines. Importantly, however, Croatian companies still lagged behind their Central and Eastern European counterparts and, whilst, 92% of companies surveyed had some CSR information on their websites, and 44% in their annual reports, only 13% (6 companies) issued a CSR report.

Recalling Randell's 'cross-level' framework cited above, the low level of reporting appears, in part at least, to be related to the institutional environment. This is apparent at the macro-level in terms of being a transition country. Indeed, it is notable how many of the leaders in one form of sustainability reporting or another are wholly owned by foreign, Western companies, in partnership with such companies, quoted on Western stock exchanges, and/or active in Western markets. It is also apparent at the micro-level in terms of company size and sectoral significance.

Crucially, whilst institutional support for CSR has been growing in Croatia, support for reporting is much more recent, with the GRI guidelines only very recently existing in an official Croatian language translation. The conditions are emerging, however, for greater emphasis on reporting, since Zagreb was one venue for discussion of the third generation of GRI guidelines and will be amongst the first to have an official translation. In addition, there is a growing number of CSR consultants and peer support structures are being developed to aid the next generation of reporters. The significance of organizational identity is more complex although leadership in corporate governance and in corporate philanthropy appears to be relevant, with even leading Croatian companies still operating within Dunphy *et al*'s

'second wave' of sustainability behaviour. The individual level of 'champion's tactics' also appears important as, in many of the top reporters, a small number of managers within the company, often active in wider debates about the role of business in society, appear to have been driving both sustainability competences and reporting.

2.3 For a reflexive comparative case study methodology

In the absence of a body of research evidence on sustainability reporting in Croatia, we chose to look in depth at the reporting practices of two Croatian companies, Coca-Cola Beverages, Hrvatska and Zagrebačka Banka in order to gain a deeper understanding of the motives for reporting and the impact of reporting in terms of the development and spread of sustainability competences. The two companies were chosen as a result of our familiarity with, and direct involvement in, their reporting, rather than in terms of any 'representative' qualities. In each case, our own knowledge and awareness has been complemented by a re-reading of the relevant reports and in-depth interviews with the person responsible for the company's reporting and, in the case of Coca-Cola Beverages, Hrvatska, a member of the senior management team. Time and access constraints led to the cancelling of a planned interview with a third Croatian company.

The comparative case study method (CCSM) used here is appropriate, in particular, when researchers have substantial knowledge of each case, within a sub-sample which is itself small. Rather than testing explicit hypotheses, CCSM seeks to formulate, elaborate and refine concepts which can be utilized, later, in larger studies, to test hypotheses and develop theory. The approach explores 'configurations of characteristics' seeing how they fit together in each case and how they differ across cases (Ragin, 1987 and Ragin, 2000). In this study, we move towards a merging of CCSM with Dvora Yanow's plea for more 'reflexivity' in organizational studies which eschews false 'objectivist' claims and, instead, re-inserts the self as a form of 'interpretative authority' into texts. Above all, reflexive CCSM asserts that "interpretative methods are no less methodical and systematic" (Yanow, 2001; 60) than more 'traditional' or 'mainstream' social scientific methodologies. The case studes can, therefore, be built on in subsequent work with a more representative sample of companies, in order to render our findings here generalisable within Croatia.

3. CASE STUDIES

3.1 Coca-Cola Beverages Hrvatska d.d

Sector and profile
The food and beverages industry is by far the most important part of the manufacturing sector in Croatia. According to Croatian Chamber of Commerce data, it represents 18.8% of the total value of the manufacturing sector, compared to, for example, the tobacco processing sector, which amounts to 2.7% of the total. In 2004, 46,000 people were directly employed in the food, beverages and tobacco sector. Consequently, it is one of the more competitive sectors, since food and, especially, beverages consumption in Croatia is related also to the size of the tourism sector. Hence, some of the largest Croatian companies, including Agrokor, Lura and CCBH sell diverse beverages through various outlets or channels. In recent years, companies have tended to diversify in terms of their involvement in carbonated soft drinks, fruit juices, and bottled water.

Operating in Croatia since 1968, Coca-Cola Beverages, Hrvatska (henceforth CCBH) became part of the Coca-Cola Hellenic Bottling Company (CCHBC) after a merger in 2002. It is now almost entirely owned by CCHBC, Europe's largest soft drinks company, operating in twenty five European countries and Nigeria. CCBH produces, bottles and sells Coca-Cola beverages in Croatia, under license from the Coca-Cola Company. It currently employs around 800 people in six locations in Croatia. Whilst CSD's still accounted for 87% of total sales in 2004, the company also sells juices, ice-teas, water, and sports drinks. The market for soft drinks in Croatia increased between 2000-2005, growing at an average annual rate of 3.9%. CCBH remains the leading company in the market. In 2004, it held on to just over 60% of the market share of CSD sales in Croatia, a steady decline from just over 67% in 2001, but had built up its share of fruit juices (to about 20%) and ice-teas (19.5%) and had entered the water market with a 3.4% share in 2004, on less than a full year of production. Its reported after-tax profits for 2005 were around 53 million HRK (Privredni vesnik, 2006; 54).

Reporting

CCBH published an Environmental Report, not based on the GRI guidelines, in May 2002. In November 2003, it was the first Croatian company to produce a Social Report based on the GRI guidelines, covering performance in 2002, with 2000 and 2001 data also covered. In October 2005, it became the first company in Croatia to produce an integrated Sustainability Report in accordance with the GRI guidelines (CCBH, 2005), covering performance in 2003 and 2004. It is committed to such reports every two years, with the next report due to be published in 2007. All reports were produced in Croatian and in English languages and the current report is available on the company's web site. The Table of Contents of the Sustainability Report, totalling ninety four pages, is shown in Box 1 below.

Box 1 **CCBH Sustainability Report, October 2005**
I.   Statement by the Chief Executive
II.   Verification Statement by the President, the Croatian Chamber of Commerce
III.   Report Summary
A: INTRODUCTION: turning our principles into policies, practice and performance
1.   Who We Are – highlighting change; promoting partnerships
2.   What We Believe – sharing vision and commitments
3.   How We Operate – corporate governance and risk management systems
B: IMPACTS & PERFORMANCE
4. The Workplace
5. The Environment
6. The Marketplace
7. The Community
8. Adding Value: integrating economic, environmental and social dimensions
C: COMMITMENTS
9. Enhancing Sustainability: improving performance & looking to the future
Appendices
I.   GRI Index
II.   Policy Statements

The parent company CCHBC has produced annual Social Responsibility Reports covering the years 2003, 2004 and 2005, all of which can be downloaded from its web site (http://www.coca-colahbc.com/community/download_center.php). The first report includes GRI indicators only for the environment, whereas the 2004 and 2005 reports, the former more

extensively, use the GRI indicators. The latest report, fifty two pages in length, includes sections on the business, governance, a special section on water, and performance reports and goals for the future relating to the marketplace, the workplace, the environment, and the community. The report includes a GRI index but no external verification.

CCBH's Social Report includes an appendix on methodology, in part as an exercise in transparency and, in part, in order to promote reporting by other companies in Croatia. Essentially, the method for compiling the Sustainability Report remained the same, with external consultants (two of the authors of this paper) working closely with the editor of the report (the other author of this paper) and a senior management group. The Sustainability Report introduces the idea of a link between CCBH's reporting and the Institute of Economics consultants, offering an assessment of progress made in terms of goals from one reporting cycle to the next.

Drivers for reporting
Quite a clear progression can be traced in terms of the drivers for reporting over time. The environmental report was a direct attempt at risk management and strengthening of company reputation in the face of external pressures, namely criticisms regarding the environmental impacts of the company's Zagreb production plant. The positive results from this report itself, and dialogue in place of critique, coincided with a thoroughgoing modernisation of country-level corporate culture.

The first social report, using an external consultant (Stubbs) and reporting according to the GRI guidelines, was driven by a mixture of intellectual curiosity and clear leadership by a small group of senior managers, including Tafra-Vlahović, in the absence of any similar reports in Croatia and, indeed at that time, no reporting tradition within the parent company. In retrospect it was a 'brave' step involving considerable exposure, revealing the company's average annual salary and market share for the first time, and a degree of self-criticism (the results of an employee satisfaction survey were included explicitly for this reason). In the words of a senior manager, it involved "opening ourselves up to our stakeholders and saying - well, this is what we are". Turning a 'threat' into an opportunity, the report was a first step in terms of raising awareness within the company, and explicitly recognising the positive social impacts of aspects of the company's performance which had not, up to that point, been recognized, a kind of shift from a lack of recognition of competence to an increased awareness of competence.

A similar process was at work in regard to the parent company, still at the time a largely unfamiliar corporate culture, which allowed CCBH to operate in terms of 'freedom within a framework'. The report was cleared with CCHBC and external validation by the International Business Leader's Forum, of which the Coca-Cola Company is a member, was seen as important in linking the 'pioneering' role of CCBH with best international practice. The report prioritised relationships with employees, the local community, customers and consumers, with less attention paid to dialogue with suppliers, NGOs, business organisations, and even less to central and local government (Gregory and Tafra, 2004; 20). The report also drew out of a wish to report on the national and local activities and commitments of a 'global' brand.

The subsequent Sustainability Report, already a commitment from the previous Social Report, continued to be driven by an internal management desire to be both first and best, within Croatia and within the group. It was also driven by, and reflected back, a change in the

corporate culture towards a more explicit commitment to sustainability, to an elaboration of stakeholder dialogue, and to a more holistic and systematic set of policies and processes in place to support this. By this time, the second, and more coherent CCHBC Social Responsibility Report had been issued which, particularly in the area of environmental reporting, also formed a benchmark. The CCBH Sustainability Report focused less on community activities and much more on governance structures. Its final, expanded, section on future commitments included an assessment of progress and merged the goals of the parent company's report with six key themes for 2005 and 2006.

Impacts of reporting

The reporting has contributed to, and is itself a product of, strengthened and modernized management structures which is also reflected in the pursuit of a wide range of ISO certification for various business processes. It has gained acceptance as part of the normal routines of doing business. Of particular note is the attention to explicit policy statements in the time between the Social Report and the Sustainability Report, including group statements on human rights and sales and marketing in relation to children, as well as a CCBH policy regarding HIV/AIDS. Crucially, the Sustainability Report was able to reflect changes in corporate governance towards a more explicit recognition of the importance of CSR. In 2004, a Council for Social Responsibility had been formed by CCHBC and this led to the founding of a local team for CSR within CCBH consisting of the Deputy General Manager, the Public Affairs and Communications Manager, and the Quality Assurance Manager which, in fact, formed the key Steering Group for the Sustainability Report. The report notes the need to add the Human Relations manager to this group and raises the possibility of including CSR objectives within executive remuneration.

Stakeholder consultation remains a clear commitment although, in terms of the impacts of reporting, it has, perhaps, been emphasised less than the technologies of reporting according to the indicators and principles of the GRI. Reporting has certainly contributed to a clearer awareness of the need to invest in research and actions to assess and improve communication and consultation processes. In terms of relationships with employees, the underlying conditions are difficult and, indeed, there was a strike in CCBH soon after the publication of the report. The background to this was the management's commitment to continued restructuring and a degree of downsizing to concentrate on core business activities. Within this, CCBH has focused on strengthening its human resources, improving training opportunities, and offering choices to those employees faced with redundancy.

Reporting has reinforced a tendency to focus more on longer-term localized partnerships than on corporate philanthropy, in part at least, based on an assessment that CCBH cannot compete with some of the leading Croatian companies in this regard. More emphasis on work with policy makers also appears to have derived from a wider recognition of the company's leading role in sustainability practices. Key managers from CCBH continue to play a leading role in the sustainability field in Croatia. Polices and practices in relation to advertising, to labelling, and to suppliers, have also improved, both nationally and globally.

Assessment

Whilst maintaining a leadership position in terms of CSR and sustainability, there has been a shift from some of the more public aspects of this towards a strengthening of reputation amongst peers and policy-makers. The company has sought to complement, or even re-orient, its image as a global brand to one of a company committed to sustainable development at the national and local level. A changed organizational culture now reflects a commitment to

modern management approaches, combining stated policies and procedures with space for innovation and creativity. Within this, there is a much greater recognition of the value of sustainability competences in and for themselves but also in terms of reframing general management approaches. In some ways, the most interesting and most complex issue is the evolving relationship between CCBH and CCHBC. The group has now not only caught up but, in many ways, taken the lead in terms of sustainability reporting. This suggests that, in the future, the balance between national and trans-national commitments and processes will be a more explicit subject of formal negotiations around the concept of 'autonomy within a framework'.

3.2 Zagrebačka banka d.d.

Sector and profile
The market structure of the banking sector has undergone significant changes in many countries in transition over the past ten years, and Croatia has been no exception. The change of bank ownership structure from state ownership to foreign-bank ownership is particularly important in Croatia. Between 1996 and 2003, following a series of bank crises, the share of assets held by foreign banks increased dramatically. By 2003 more than 90% of the banking sector's total assets were foreign-owned. Thus, the Croatian banking system is characterized by a high degree of foreign ownership (Slijepčević and Živković, 2005).

Liberalization of the banking system began in 1993 in Croatia with the adoption of the Act on Banks and Savings banks. Of numerous banks in Croatia, Zagrebačka banka (ZaBa) is one of the oldest financial institutions in Croatia (existing since 1914). After privatisation of the Bank, it was purchased by the Italian-based UniCredit Group in 2002,which owns almost 82% of all shares. On the basis of the financial strength of the foreign owner - UniCredit Group has more than €89bn in assets - ZaBa is currently the leading bank in Croatia, with more than 4400 employees, 1.2 million clients and 903 million HRK profit in 2005, holding a quarter of the total market share in credit financing and almost one third in deposits.

Reporting
ZaBa produced its first Social Report in November 2005, covering performance in 2003 and 2004 with some statistics from 2002 also included. It was prepared in accordance with the GRI guidelines and indicators, including eight additional indicators drawn from the GRI Financial Services supplement, although it contains no independent verification statement. Produced in both English (eighty four pages) and Croatian (eighty pages) language versions, the contents of the report are shown in Box 2 below. The report can be directly linked to and downloaded from the Bank's home page (ZaBa, 2005), with more detailed online reporting on sustainability planned as part of a new website currently under construction.

ZaBa's parent company UniCredit Group has produced annual Social and Environmental Reports covering performance each year from 2000 up to and including the latest 2005 report which presents the company's new profile as a 'truly European Bank', following mergers with the German HVB and Austrian Ba-Ca banks (UniCredit Group, 2006). The one hundred and fifty two page 2005 report, which includes a verification by the auditors KPMG, appears to be loosely based on the GRI guidelines although the indicators listed are not cross-referenced as required in order to be 'in accordance' with the GRI standard. The web site states explicitly that the report "is a document of value not only in communication terms, but also a form of management tool, telling us what, how and how much has been achieved and for whom. In recent years efforts have been concentrated on clarifying the coherence between

business and management strategies and our relations with stakeholders" (http://www.unicreditgroup.eu/DOC/jsp/navigation/include_content.jsp?parCurrentId=0b003 0398031b035&parCurrentPage=bilancio_soc_ambient.html&locale=en).

Box 2: **Zagrebačka Banka Social Report 2004**
PART 1: INTRODUCTION
1. Chairman's statement
2. Reporting Method
3. Organization Profile
4. Values as Guidelines: our vision and mission
5. Governance Structure and Management Systems
6. Significant Shareholders
PART 2: EFFICIENCY – ACTIVITY AND IMPACTS
1. Economic Impacts and Efficiency
2. SOCIAL IMPACTS AND EFFICIENCY
A. At Your Service – Customer Protection And Product Responsibility
B. Respecting Human and Labour Rights
C. Consumer Development and Philanthropy
PART 3: LOOKING AHEAD
1. Objectives and Future Commitments
APPENDICES
1. Code of Professional Conduct
2. List of Indicators
3. List of Tables
4. Glossary of Terms
5. (Separate) Questionnaire

ZaBa contracted consultants from the Institute of Economics including one of the authors of this paper, who were responsible for supporting the process, clarifying and translating the GRI guidelines, running a series of workshops with managers designated to collect and interpret information, helping plan the report structure, and commenting on drafts. The report was written by a core team from the Bank's Department for Corporate Communications and Marketing.

Drivers for reporting
As a founder member of HRPSOR, joining in 1997 and, in particular, as a company which had profiled itself in terms of an explicit sustainable development policy and practice, the commitment to produce a social report was a natural progression. In particular, the Bank had been the first Croatian company to introduce a public tender competition for donations for projects which improve the life of the community, in 1999. The annual competition was refined in 2003 and now includes four categories: Children and Young people; Humanitarian activity; the Arts; and Cultural Heritage, with a separate fund for environmental projects. Another driver was the Bank's position as the leading bank in Croatia, a large employer, and recipient of a number of awards. The initial work on CSR was steered by one person but this spread to others within the Department for Corporate Communications.

In broad terms, the key internal driver was a desire to demonstrate to employees that ZaBa's leading market position was matched by leadership in corporate social responsibility. In the

five or so years of intense activity in CSR, there had been a feeling that this was not sufficiently known about, understood or even, to an extent, supported, by most of the staff. In a way, the issuing of the report sought to raise awareness of what had been done and act as a catalyst to spread the values of CSR more widely within the company. At the same time, this was matched by an external driver in terms of a wish to communicate more effectively and systematically with external stakeholders, primarily customers and potential customers, but also with policy makers and potential investors, regarding the Bank's general profile and products and, in particular, its commitments. This can be seen in the descriptions in the report of socially relevant investments and lending with a high social benefits (pp. 27 – 33); on customer privacy (p 35); and, most clearly, regarding corporate giving (pp. 53 – 63). In many ways, the report was a charter of achievements over a five or six year period, with the explicit intention of being a catalyst for the further and deeper development of sustainability competences throughout the company.

Interestingly, there was no pressure for reporting, either explicitly or implicitly, from UniCredit Group, which asked ZaBa to contribute data and information for its annual Environmental and Social Report but which allowed the company complete freedom in terms of whether or not, and in what form, to report on ZaBa's own sustainability practices. Beyond reference to the parent company's reports, and a note on activities under the umbrella of the Unidea UniCredit Foundation (p 63), there is no uniformity between the ZaBa Social Report and UniCredit's reporting.

Impacts of reporting
The methodology used for producing the report was designed explicitly to achieve the goal of raising awareness within the company both in terms of sharing information but also in terms of sending a message that social and sustainability reporting was about more than figures, facts and a few human interest stories. The consultant-led workshops, attended by some twenty key staff, served as awareness raising sessions in this regard. The process helped in a redefinition of CSR within the company from being concerned primarily with a charitable or philanthropic conception, based almost entirely on donations, to an awareness of the importance of impacts on customers, employees, and, to an extent, on the environment. The report was one part of a consistent effort by a small dedicated team, which also included organizing a high profile seminar on Social Responsibility involving senior management from ZaBa and a representative of the UniCredit Foundation, focused, in particular, on discussing the reporting of CSR in the media.

A crucial change can also, in part at least, be traced to reporting, namely a decision to introduce a social responsibility dimension into key bank products, notably in terms of a grace period for loan repayments coinciding with parental leave. In addition, as an example of cause-related marketing, new home loans include a ZaBa donation towards a house for young people leaving institutional care. Something of the seed for both ideas was laid by increased awareness of such practices in reporting through familiarity with the Financial Services supplement of the GRI.

In addition, induction training for new employees now includes, for the first time, a section on the Bank's commitment to CSR. ZaBa is also one of the leaders in Croatia in terms of employee volunteer schemes. Whilst the annual grants programme continues to act as a flagship in terms of the Bank's corporate philanthropy, more long-term partnerships are also being developed with particular NGOs and institutions, including UNICEF, a Guide Dogs for the Blind NGO, and a manufacturer of ecological foods. Indeed, one of the features of the

Social Report is the inclusion of testimonials by key partners although, in part because of time constraints, an initial idea of having a team of external verifiers drawn from different sectors was abandoned.

Crucially, the corporate governance structures have been changed to reflect a more holistic commitment to sustainability, with a newly formed Corporate Responsibility team directly responsible to the Bank's CEO. The medium-term goals of this team reflect an ambitious programme of integrating dimensions of CSR which have, perhaps, not been so well developed, to finding synergies between the different activities, as well as consolidating policies, practices and procedures. The Bank will issue its first Sustainability Report, again working with a team from the Institute of Economics, according to the GRI guidelines, in 2007.

Assessment

The first Social Report by Croatia's leading bank, actually confirmed its leadership role in aspects of corporate social responsibility in Croatia, being a description and stock-taking of achievements thus far, and a catalyst for a widening and deepening of its sustainability practices in the future. A series of events meant that the report was also used as a catalyst for improved communication with external stakeholders and a deepening of commitments to longer-term partnerships. The process of compiling and writing the report, whilst it served to raise awareness within the various Departments of the company, was a lengthy and time consuming process and, perhaps, had detrimental consequences in terms of the abandonment of plans for an innovative form of external verification. In addition, although perhaps in keeping with a first report, the concluding section in terms of commitments for the future is short and somewhat general. Perhaps the most striking contrast with the other case study is the apparent lack of any impact in terms of the Bank's relationship with its parent company. It will be interesting to see in the future whether this changes and, indeed, whether ZaBa's leadership in CSR and in reporting has impacts on other banks in Croatia and/or on the banking sector, including UniCredit subsidiaries, elsewhere in Central and Eastern Europe.

4. CONCLUSIONS

There are many similarities between the two case study companies, in particular, in terms of the motives for, and impact of reporting. Both are long-standing Croatian companies and, now, part of a larger, multi-national, parent company. Both are clear market leaders in their particular, highly competitive, sectors. Both have long-standing commitments to CSR practices, led by key champions but increasingly spread throughout the organization. Both sought, explicitly, to use reporting as a way of raising awareness of their CSR commitments within the company and for external stakeholders. Both have changed their corporate governance structures to prioritise sustainability. Both are now committed to a cycle of bi-annual Sustainability reporting based on the GRI standard. In terms of Dunphy *et al*'s stages, both can be seen to be close to entering a third wave of a transformative commitment to sustainability.

There are also a significant number of differences. ZaBa relies on its national reputation whereas CCBH seeks to solidify a national reputation in the context of a global brand. CCBH began reporting earlier and has, in consequence, reached a more advanced form of reporting and, in particular, has in place an embryonic benchmarking and monitoring system for

chasing sustainability goals. ZaBa has profiled its corporate philanthropy leadership more as its 'flagship' for CSR, whereas CCHBC, perhaps, sees reporting and peer reputation as more important. Table 2 summarises the main points of similarity and difference between the two companies in terms of reporting.

TABLE 2: Case Studies Compared

ISSUE	CCHBC	ZABA
Leadership	Domestic market leader, group is international market leader	Domestic market leader, part of international group
Reporting Status	Advanced – Sustainability; GRI, Benchmarking Performance; External Verification	Beginning – GRI on social reporting; Limited Benchmarking; No External Verification
Governance Structures	Transitional – Policy commitments in place	Beginning – Policy commitments undeveloped
Themes Emphasised	Holistic – Stakeholder Oriented	Community Development – Customer and Civil Society Oriented
Reputation	Moving from Negative to Positive – Domestic and International	Positive – Focus on Philanthropy
Parent Company	In advance of PC though catch up occurring	Behind PC – No Plans for Convergence
Future	Innovation Through Delivering Value	Innovation through Move to Sustainability Reporting

In terms of some of the hypotheses regarding reporting noted earlier, the case studies appear to show the importance of leadership in the context of the Croatian CSR field but also the relevance of the transition context. In a 'field' marked by no more than a dozen regular reporters and a mere handful of GRI 'in accordance' reporters, there has not yet been any evidence of the diminished impact of reporting. Crucially, whilst CCBH's initial environmental report was, in part, driven by external pressure and a desire to manage reputation, the subsequent Social Report was more a stock-taking venture, and the Sustainability report was driven fully by strategy, values and a kind of assertiveness that transparency, honesty, and dialogue work in the interests of all. ZaBa, which did not face external pressure, is now developing a more holistic strategic sustainability framework under a longer-term timescale. Both companies have changed their structures and developed new narratives in the process of reporting. The most underdeveloped issue for both companies is that of stakeholder dialogue and, in particular, the design of diverse channels for diverse stakeholders.

The evidence presented here suggests that there is a clear link between the development of a range of developmental imperatives within companies, sustainability competences and reporting practices. The in-depth case studies presented here need to be complemented by wider surveys of managerial attitudes and practices among a range of reporters. The reasons why many leading companies, including leaders in sustainability practices, still do not report regularly and systematically in Croatia, also deserves special attention. In the context of interest in the economic value of 'clusters' in Croatia (cf. Redžepagić and Stubbs, 2006), it will be interesting to see whether 'sustainable business clusters' in which companies work together, and with other stakeholders, to deliver long-term social and environmental benefits (cf. Zadek, 2004 ch. 29; Regional Futures, 2004) will also be developed in Croatia. In the future, research on the nature of competences in different fields will need to explore the link

between emerging sustainability clusters and networks and wider responsible competitiveness. This paper has, we hope, opened a door to promote more diverse methods and analysis of the symbiotic relationship between reporting, sustainability and management practices in Croatia.

Further research is needed to build on the findings of these case studies and generate hypotheses which can be tested and lead to generalisable statements regarding the role of reporting in Croatia. The following appear to us to offer the most important lines of inquiry:

- What factors encourage Sustainability Reporting in Croatia? Why have some leaders in CSR practices not yet entered into systematic reporting?
- Are managerial attitudes, practices and competences in terms of sustainability reporting a good predictor of other aspects of the management function?
- Are leading reporters more networked within the sustainability field than other companies?
- What are the motivations for reporting in a range of reporters? How does this vary with sector; size; leadership; and corporate governance?
- Is there evidence of lesson learning and transfer of sustainability competences from elsewhere or are they more often 'home grown'?
- How does sustainability reporting relate to companies' definitions of key stakeholders? How do companies seek to measure stakeholder impact?

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LEADING LEARNING IN ORGANIZATIONS: AN EMPIRICAL INVESTIGATION INTO THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND ORGANIZATIONAL LEARNING

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Abstract

The paper empirically examines the influence of transformational leadership on the process of learning in organizations. Organizational learning is one of the most important sources of a sustainable competitive advantage, as well as an important driver of corporate performance. Leadership appears to be one of the most powerful facilitators of the organizational learning. However, there is little prior empirical evidence for the impact of leadership on organizational learning. Data were collected at the organizational unit level from 753 employees in Slovenia, using combination of the Multi-factor Leadership Questionnaire (MLQ) and the Organizational Learning and Information Management Processes (OLIMP) measurement instrument. The results indicate that transformational leadership has a strong impact on all four phases of organizational learning: Information Acquisition; Information Distribution; Information Interpretation; and Behavioral and Cognitive Changes; however, it only directly impacts the first and last phases. Total effect sizes range from .61 to .79.

1   INTRODUCTION

Organizational learning is one of the most important sources of a sustainable competitive advantage that companies have (de Geus 1988) as well as an important driver of corporate performance (Stata 1989). Given the turbulent environments that organizations work within, continuous learning is a key driver of their ability to remain adaptive and flexible – that is to survive and effectively compete (Burke, Stagl et al. 2006). Studies have shown that it affects competitive advantage (Jashapara 2003), financial and non-financial performance (Bontis, Crossan et al. 2002; Dimovski and Skerlavaj 2005; Jimenez-Jimenez and Cegarra-Navarro 2006), tangible and intangible collaborative benefits in strategic alliances (Simonin 1997), the unit cost of production (Darr, Argote et al. 1995), and innovation (Llorens Montes, Ruiz Moreno et al. 2005). It is especially important for companies from transitional economies, which strive to catch-up the world's leading competitors.

Given the significance of organizational learning for corporate performance, it is important to understand how managers can influence the learning process in organizations. Authors suggest several antecedents to organizational learning such as the organizational structure, organizational culture, and subordinates' autonomy (Bapuji and Crossan 2004), human resource management practices (Wright 2001), teamwork cohesion (Swieringa and Wierdsma 1992; Marquardt 1996; Dyerson and Mueller 1999; Llorens Montes, Ruiz Moreno et al. 2005), social capital (Nahapiet 1998) and information-communication technologies (Tippins 2003; Ruiz-Mercader, Merono-Cerdan et al. 2006). In addition, several authors have emphasized the importance of leadership for organizational learning (Swieringa and Wierdsma 1992; Lei, Slocum et al. 1999; Llorens Montes, Ruiz Moreno et al. 2005; Perez-Lopez, Montes-Peon et al. 2005). The capability for transformational leadership has even been described as one of the most important means of developing learning organizations (Slater and Narver 1995; Maani and Benton 1999; Snell 2001), especially since leadership also influences many of the previously listed antecedents to organizational learning.

However, the relationship between leadership and organizational learning has rarely been empirically examined. The purpose of the study is to empirically investigate the relationship between leadership and organizational learning in the context of a small transitional economy. More specifically, the study examines the influence of transformational leadership on learning in organizational units drawn from a wide range of organizations. The basic research questions is whether transformational leadership contributes to learning in organizations.

The paper is structured in four major sections. In the first section we provide some theoretical background to the concepts used in the study – organizational learning and the transformational leadership theory. We conclude the first section by reviewing existing research on the relationship between leadership and learning in organizations, develop a theoretical model and propose hypothesis to be tested. The second section deals with the methodology. We discuss the research instrument, research design and data collection, characteristics of the sample and statistical methods used. In the third section we present the results. Finally, in the last section we discuss the theoretical and practical implications of the study, review its contributions and limitations and propose some questions requiring further investigation.

2 THEORETICAL BACKGROUND

2.1. Organizational learning

Organizational learning remains a very popular concept in the modern managerial literature and has been defined in many different ways. Early authors understood it simply as a process of detecting and correcting errors (Argyris and Schon 1978). Fiol & Lyles (1985) perceived it as a process of improving actions through better knowledge and understanding. Huber (1991) defined organizational learning as the processing of information with the aim to store knowledge in the organizational memory. He claimed that an entity learns if, through the processing of information, the range of its potential behaviors is changed. According to Huber (1991), organizational learning consists of four phases: (1) information acquisition; (2) information distribution; (3) information interpretation; and (4) organizational memory. Dimovski (1994) extended Hubers' information-processing perspective to include action and defined organizational learning as a process of information acquisition, information interpretation together with the resulting behavioral and cognitive changes which should, in turn, have an impact on organizational performance. Other authors emphasizing the importance of action and changes for organizational learning are Kim (1993), Crossan (1995), and Sanchez (2005).

Building on these arguments, we define organizational learning as process consisting of four consecutive phases: (1) information acquisition; (2) the distribution of information; (3) information interpretation; and (4) the resulting behavioral and cognitive changes. The first three phases may be grouped in the information-processing stage. While we might expect these consecutive phases to be empirically highly related, they are theoretically distinct and related as such.

The information-processing (and organizational-learning) cycle starts with the collection of information from both *internal* and *external* sources, while the third key sub-dimension of information acquisition is *employee training*. When assigned adequate importance, these three sub-dimensions allow employees to constantly update their work-related information base.

The information gathered through various sources and ways needs to be distributed to those members of an organization that might require it (Huber 1991). Several channels and conduits exist that allow for information distribution. Some conduits rely more on *'people'* (employees are acquainted with goals, take part in more cross-functional teams etc), while others rely on *'systems'* (e.g. information system, organized meetings to inform employees, formalized mechanisms and systems to facilitate the transfer of best practices).

Information must be given meaning. 'Interpretation is the process of translating events, of developing models for understanding, of bringing out meaning, of assembling conceptual schemes' (Weick and Daft 1984). The purpose of interpreting information is to reduce the ambiguity related to information. Recent research in the area of organizational learning culture and organizational performance (Skerlavaj, Indihar Stemberger et al. in press) has demonstrated that information interpretation also differs in the way people get together in order to understand the information acquired and distributed. Some vehicles might be *formal* such as official memorandums, expert reports, seminars and similar events. Other meetings might be more *informal* and involve team and personal meetings.

Organizational learning is reflected in 'accompanying changes' (Garvin 1993). Spector and Davidsen (2006) claimed that 'learning is fundamentally about change'. If no *behavioral or*

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cognitive changes occur, organizational learning has not in fact occurred and the only thing that remains is unused potential for improvements (Fiol and Lyles 1985; Garvin 1993). Sanchez (2005) supported this notion by saying that 'knowledge has a value to organizations only when it is applied in action within an organization's processes' (p. 12) and that 'organizational learning can be said to occur when there is a change in the content, conditionality, or degree of belief of the beliefs shared by individuals who jointly act on those beliefs within an organization' (p.16).

Two levels of learning can be observed when discussing cognitive changes. Lower-level learning reflects changes within the organizational structure which are short-term and only partly influence the organization. Higher-level learning reflects changes in general rules and norms (Fiol and Lyles 1985). Argyris and Schön (1996) classified learning similarly: single-loop and double-loop learning, (Dodgson 1993) discussed tactical and strategic learning, while Senge (1990) used the terms adaptive and generative learning. By all means, with lower-level learning the organization acts passively and only adapts to the environment, whereas higher-level learning involves an active influence on the business environment.

2.2 Transformational leadership

Like organizational learning, leadership is a complex phenomenon that has been understood and defined in many different ways. In this study we focus on transformational leadership as conceptualized by Bass (1985) and developed by Avolio and Bass (1991) in their 'full-range leadership theory'. They distinguished between three major types of leadership behavior: laissez-faire (non-leadership), transactional and transformational leadership. The transactional leadership process is based on exchange: the leader offers rewards (or threatens punishments) for the performance of desired behaviors and completion of certain tasks. This type of leadership may result in the followers' compliance but it is unlikely to generate enthusiasm for and a commitment to task objectives. Transformational leadership lies in the leader's ability to inspire trust, loyalty and admiration in followers who then subordinate their individual interests to the interests of the group. Rather than analyzing and controlling specific transactions with the followers by using rules, directions and incentives, transformational leadership focuses on intangible qualities such as vision, shared values and ideas in order to build relationships, give larger meaning to separate activities and provide common grounds to enlist followers in the change process.

Transformational leadership encompasses five dimensions. *Idealized influence (attributed)* refers to the socialized charisma of the leader, whether the leader is perceived as being confident and powerful, and whether the leader is viewed as focusing on higher-order ideals and ethics. *Idealized influence (behavior)* refers to the charismatic actions of the leader that are centered on values, beliefs and a sense of mission. *Inspirational motivation* refers to the ways the leader energizes their followers by viewing the future with optimism, stressing ambitious goals, projecting an idealized vision and providing encouragement and meaning for what needs to be done. *Intellectual stimulation* occurs when the leader stimulates new perspectives and ways of doing things, questions old assumptions and beliefs while encouraging the expression of ideas and reasons. *Individualized consideration* refers to leader behavior that contributes to the satisfaction of followers by treating others as individuals, considering their individual needs, abilities and aspirations and thus allowing them to develop and self-actualize (Antonakis, Avolio et al. 2003).

Transactional leadership may be an effective type of leadership. Previous research has indicated a positive correlation between contingent reward leadership and effectiveness, and

no relationship between management by exception and effectiveness (Lowe, Kroeck et al. 1996). However, transformational leadership is even more effective. Bass (1985) argued that transformational leadership builds on or augments transactional leadership. Several meta-analyses of the Multifactor Leadership Questionnaire ('MLQ') studies have identified transformational leadership as the most effective type of leadership behavior (Lowe, Kroeck et al. 1996; DeGroot, Kiker et al. 2000; Dumdum, Lowe et al. 2002).

2.3 Transformational leadership and organizational learning

By the nature of their status, leaders serve as information centers of their units or teams. They therefore have a strong influence over the way information is acquired and distributed in the unit. Laissez-faire leaders, for example, will inhibit the flow of information due to their inactivity. The processes of acquiring and distributing information will therefore operate below optimum. The communication between unit members will be restrained and slowed down. New knowledge will be difficult to obtain, while information from different sources will not be widely shared. On the other hand, transformational leaders encourage open, honest and timely communication, and foster dialogue and collaboration between team members. They encourage the expression of different views and ideas. They act as catalysts, speeding up the knowledge acquisition and distribution. In the same manner, by allowing the expression of different views and ideas, by challenging old assumptions and beliefs and by stimulating new perspectives, they enhance the process of information interpretation as well. Finally, transformational leaders may facilitate the cognitive and behavioral changes in organizational members resulting from previous phases of organizational learning. Hence, an organization that wishes to learn better should adopt more transformational styles of leadership. Its leader would be a catalyst, a mentor, a facilitator and a trainer of learning capability.

The empirical evidence, although scarce, generally supports these assertions. A meta-analysis examining the relationship between leadership behavior in teams and team performance outcomes found that, out of 50 empirical studies, only three included organizational learning as the outcome variable and none of them examined the relationship between transformational leadership and organizational learning. They did, however, examine the influence of empowering leadership, which may be related to transformational leadership. The use of empowerment behaviors explained 31% of the variance in team learning, with the effect size equaling .56 (Burke, Stagl et al. 2006).

In a study of leadership and organizational learning's role on innovation and performance Aragon-Correa, Garcia-Morales, & Cordon-Pozo (in press) found that transformational leadership facilitated the organizational members' ability to create and use knowledge. Using data from 408 large firms from Spain and structural equation modeling, they found a strong and statistically significant effect of transformational leadership on organizational learning, with the standardized structural coefficient equaling .81. Similarly, a study of 202 companies from Spain examined the influence of support leadership on learning in organizations (Llorens Montes, Ruiz Moreno et al. 2005) as part of a larger structural equation model focusing on the determinants of organizational performance. Support leadership was conceptualized as being similar to transformational leadership but with a greater emphasis on tolerance, support and freedom to develop open communication. The direct effect of support leadership on organizational learning equaled .54, while the total effect was even larger (.64).

Recent research among 104 Jewish elementary schools (104 principals and 1,474 teachers) showed that transformational leadership had a significant positive direct effect on

organizational learning (β = .21) (Kurland & Hertz-Lazarowitz, 2006). The effect of transactional leadership was still positive but somewhat weaker (β = .15), while the effect of the laissez-faire leadership style showed a negative impact on organizational learning (β = -.15). These arguments lead to the following hypothesis:

Hypothesis 1: *Transformational leadership positively influences the information acquisition (H1a), information distribution (H1b), information interpretation (H1c), and cognitive and behavioral changes (H1d) dimensions of organizational learning.*

The relationships between the transformational leadership and organizational learning is summarized in the conceptual model presented in Figure 1.
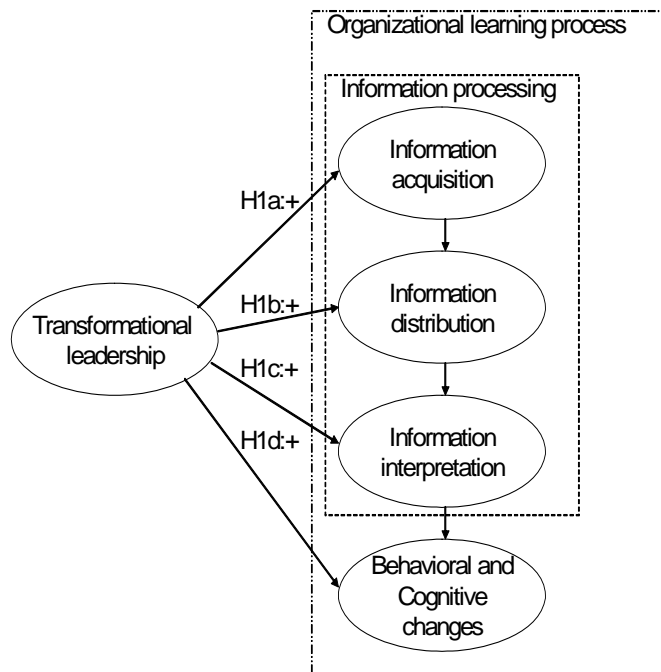
Figure 1. *Hypothesized impacts of laissez-faire, transactional and transformational leadership on organizational learning.*

3 METHOD

3.1 Research instrument

In order to ensure content validity and ensure the widest possible comparability of results we built our measure on the previous research base and used pre-tested constructs and measures to the greatest extent possible.

When choosing a valid and reliable measurement instrument to assess the organizational learning process, we found that three operationalizations prevail. One is the Strategic Assessment Map (Bontis, Crossan et al. 2002), the second follows Nonaka and Takeuchi's (1995) SECI model, while the third follows the tradition of Hubers' (1991) definition of organizational learning. In upgrading Hubers' (1991) information-processing

perspective with the behavioral and cognitive dimension and an extensive literature overview, Dimovski (1994) developed a set of items wrapped up in the OLIMP questionnaire (see the Appendix), which has since then been refined and tested on several occasions (in the USA, Slovenia, Croatia, Malaysia) at various points in time (1994, 2002, 2003, 2004, 2005, 2006). Given the complexity of the organizational learning measurement it always yielded adequate psychometric properties. In this version, we upgraded the questionnaire with six additional items in order to also measure the information-distribution dimension. Five-point Likert scales were used. The questionnaire consisted of four dimensions and nine sub-dimensions, totaling 36 items. The sub-dimensions and items are listed in the Appendix.

The transformational leadership (as well as it's sub-dimensions) was measured using the Multifactor Leadership Questionnaire (MLQ), form 5X (Bass and Avolio 1990). MLQ is one of the most widely used and tested measures of transformational leadership exhibiting sound psychometric properties (Avolio, Bass et al. 1995; Lowe, Kroeck et al. 1996; Antonakis, Avolio et al. 2003). It contains 36 items representing the nine factors (laissez-faire leadership, management by exception (active), management by exception (passive), contingent reward, intellectual stimulation, inspirational motivation, individualized consideration, idealized influence). Each scale is thus made up of four items. In addition, nine items assess the three leadership outcome scales (these scales were not the focus of the study).

The MLQ was translated into the Slovenian language using the translation-back-translation technique. In addition, prior to this study the MLQ had been administered to 130 respondents, obtaining good levels of reliability. Nevertheless, as a result of the pre-testing some minor modifications to the wording were made for the most problematic items.

3.2 Research design and data collection

For the purposes of the research, we chose the organizational unit as the focus of the study. An organizational unit was defined as a geographically or functionally distinct part of an organization, which has its own leader. The respondents were asked to assess the four constructs of organizational learning in their unit. Similarly, they were asked to rate their leaders (leaders of their organizational unit) regarding the various leadership behaviors specified in the previous section.

Where random sampling is problematic (as in management research), one way to enhance the generalisability of findings is to deliberately sample for heterogeneity (Mark and Cook 1984) . By intentionally selecting subjects who come from diverse organizational settings, the researcher can determine whether a selected model accurately describes the actions of individuals across these divergent contexts. On the other hand, choosing a sample of firms located in a relatively homogenous geographic, cultural, legal and political space reduces the impact of confounding variables (variables that cannot be controlled in the empirical research) (Triandis 1994).

In line with these observations the data were collected in Slovenia in 2006. With its small transition economy and a population of approximately two million, Slovenia is a model of economic success and stability for its neighbors in Central and South-east Europe. The country joined the EU in 2004, has excellent infrastructure, a well-educated workforce and an excellent central location. It enjoys a GDP per capita that is substantially higher than any of the other transition economies of Central Europe (2006). In 2007 it also adopted the common European currency of the euro as the first of the new EU members.

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Paper surveys were mailed to 1,914 alumni of the undergraduate programs of the Faculty of Economics in Ljubljana, the premier business school in the country. In addition, e-mails with links to the electronic version of the survey were sent to current and former students (up to eight previous generations) from the same school which accounted for an additional 4,485 units (with the possibility of the samples overlapping). 39 paper items were returned due to a non-existing address and about 10% of the e-mails were inactive (approximately 449). Within the first three weeks of the mailing, 418 paper surveys had been completed and sent back, with a response rate of 22.3%. In addition, 374 usable electronic questionnaires were completed (a response rate of 9.3%). Preliminary screening indicated a large number of missing values in 39 questionnaires. These questionnaires were removed from further analysis, making the final sample size 753.

Using this research design we were able to obtain data for organizational units of different sizes, from different functional backgrounds, and from different levels within the organizations. In addition, the units belonged to a wide range of companies in terms of size and industry. In this way the influence of confounding and background variables was randomized and cancelled out, increasing the validity of the empirical findings (Van de Vijver 2003).

3.3 Characteristics of the sample

The average age of the respondents was 34 years; 40% of them were female. Most (48%) have spent between 1 and 5 years in their present position, while 38% of them have worked in the same organizational unit for more than 5 years.

The majority of the leaders rated by the respondents were male (67%). Most of them were between 30 and 50 years old (70%) and only 4% were younger than 30. 63% have spent more than 3 years as the leaders of their present organizational units, while only 11% have been in the present leadership position for less than one year. More than half of the leaders rated belonged to top management (52%), while the rest belonged to middle management (37%) and line management (11%). On average, they had control over 73 subordinates (the number of people at the lower levels of the organization); however this parameter is distorted due to the presence of the CEOs of some large companies. The median number of subordinates was 17. Most leaders came from a business educational background (53%), followed by engineering (27%), the social sciences (10%) and natural sciences (9%).

The respondents and the leaders they rated came from a wide range of organizations within various industries. The size of the organizations ranged from 1 to 17,000 employees, with a mean of 686 and a median of 120 employees. Most of the organizations belonged to service sectors (46%), followed by the non-profit and public sector (22%) and industry (22%).

In general, the data indicate that most of the leaders belong to senior management and have held their leadership positions long enough to make an impact on their organizational or organizational units. Likewise, the majority of the respondents are mature enough and have been in their units long enough to provide a valid assessment of the constructs under study.

3.4 Statistical methods used and model specification

Structural equation modeling was used to test the hypotheses. The relationships between the constructs were estimated using LISREL 8.7 with the correlation matrix and asymptotic covariance matrix as inputs. We also conducted tests of normality which yielded a need to report Satorra-Bentler (SCALED) Chi square fit indices (Sattora and Bentler 1988). In large

samples such as ours the χ^2 test becomes highly problematic because in large samples even trivial differences between theoretical and empirical covariance matrices may result in a large value of the statistic (Joreskog 1993). Therefore, we shall provide several measures of model fit but will use the Comparative Fit Index (CFI), which appears to be the most accurate in a wide variety of situations (Hu and Bentler 1995), as the primary criterion of model fit.

Three model was corresponding to the conceptual model presented in Figure 2. Transformational leadership is measured with five indicators: idealized influence (attributed and behavioral); individual consideration; inspirational motivation; and intellectual stimulation. Transactional leadership is measured with three scales: contingent reward, active and passive

Indicators (sub-dimensions) for the organizational learning constructs were obtained through a combination of exploratory and confirmatory factor analysis, while we upgraded the validated and reliable questionnaire extended with one additional dimension and six items based on extensive theoretical support. Information acquisition is measured with three indicators – internal information acquisition, external information acquisition, and training. Information distribution is measured by two indicators: a people-oriented information distribution, and system-oriented information distribution. Information interpretation is measured by formal information interpretation and informal information interpretation. Finally, behavioral and cognitive changes are measured by two indicators: behavioral changes and cognitive changes. The four dimensions of organizational learning are, in effect, consecutive steps in the process. While we might expect a strong impact on one another, they are theoretically and empirically distinct constructs.

4 RESULTS

4.1 Validity and reliability

Confirmatory factor analysis (CFA) was used to assess the reliability and validity of the constructs used in the study. The construct validity measures how well the indicators represent the corresponding latent variables. Table 1 presents unstandardized and completely standardized factor loadings together with the corresponding t-values for each indicator and construct in the measurement model.

Table 1: Factor Loadings and Construct Validity for the Constructs Used in the Study

Latent variable	Indicator	Unstandardized factor loading	Completely standardized factor loading	t-values
Transformational leadership (Tf)	Idealized influence (attributed) II(a)	.78	.84	31.97
	Idealized influence (behavioral) II(b)	.60	.74	23.02
	Inspirational motivation IM	.85	.83	30.12
	Intellectual stimulation IS	.75	.83	28.86
	Individual consideration IC	.95	.88	36.41
Information acquisition (Infoacq)	Internal information acquisition (INTERNAL)	.54	.69	19.69
	External information acquisition (EXTERNAL)	.45	.57	15.58
	Training as information acquisition (TRAINING)	.74	.67	20.38
Information distribution (Distinfo)	Information distribution via systems (SYSTEM)	.81	.84	29.00
	Information distribution via organizational members (PEOPLE)	.78	.80	27.33
Information interpretation (Infoint)	Informal means of information interpretation (INFORMAL)	.62	.76	20.09
	Formal means of information interpretation (FORMAL)	.63	.72	21.28
Behavioral and cognitive changes (Bcc)	Behavioral changes (BC)	.51	.76	21.03
	Cognitive changes (CC)	.77	.88	31.17

The results show that the factor loadings for all indicators are statistically significant and exceed the threshold of .50 for convergent validity (Hair, Anderson et al. 1998).The values of the Cronbach α, composite reliability index (CRI), as well as the average variance extracted (AVE) for all latent variables in the final measurement model are presented in Table 2. Diamantopoulos and Siguaw (2000) suggested that the threshold for CRI should be set at .60. Constructs exceeding that value are considered to have good composite reliability, which is the case with all latent variables. The cut-off value for AVE is .50 (Hair et al., 1998), where reliable constructs should exceed this value, with Cronbach alphas researchers usually use a cut-off value of α = .70 for studies in advanced phases (α1), while for exploratory studies

alphas ranging from .50 to .60 (α2) are considered to be adequate (Nunnaly 1978; Van de Ven 1979). All of the constructs attain the recommended cut-off values using all three measures of construct reliability. The only exception is the construct information acquisition, which slightly fails the AVE internal consistency test but fulfills the Cronbach alpha for exploratory studies (α2) and, what is more, satisfies the CRI criteria which is considered to be the most robust of all three reliability criteria (Diamantopoulos and Siguaw 2000).

Table 2: Internal Consistency and Reliability

Construct	Cronbach α	CRI	AVE
Transformational leadership	.91	.95	.68
Information acquisition	.67	.78	.42
Information distribution	.81	.88	.67
Information interpretation	.71	.81	.55
Behavioral and cognitive changes	.78	.88	.68

4.2 The relationship between leadership and organizational learning

Figure 3 presents a structural model of the relationship between transformational leadership and organizational learning along with the standardized values of path coefficients. Statistically significant structural coefficients are marked with an asterisk. Overall coefficients of determination (R^2) are also presented for each of the endogenous constructs. The model exhibits a good fit to the data ($\chi^2 = 351.46$, df = 70, NNFI = .98, CFI = .98, and GFI = .93). In addition, the high values of the determination coefficients indicate that the model explains a large percentage of the variance in the endogenous latent variables.
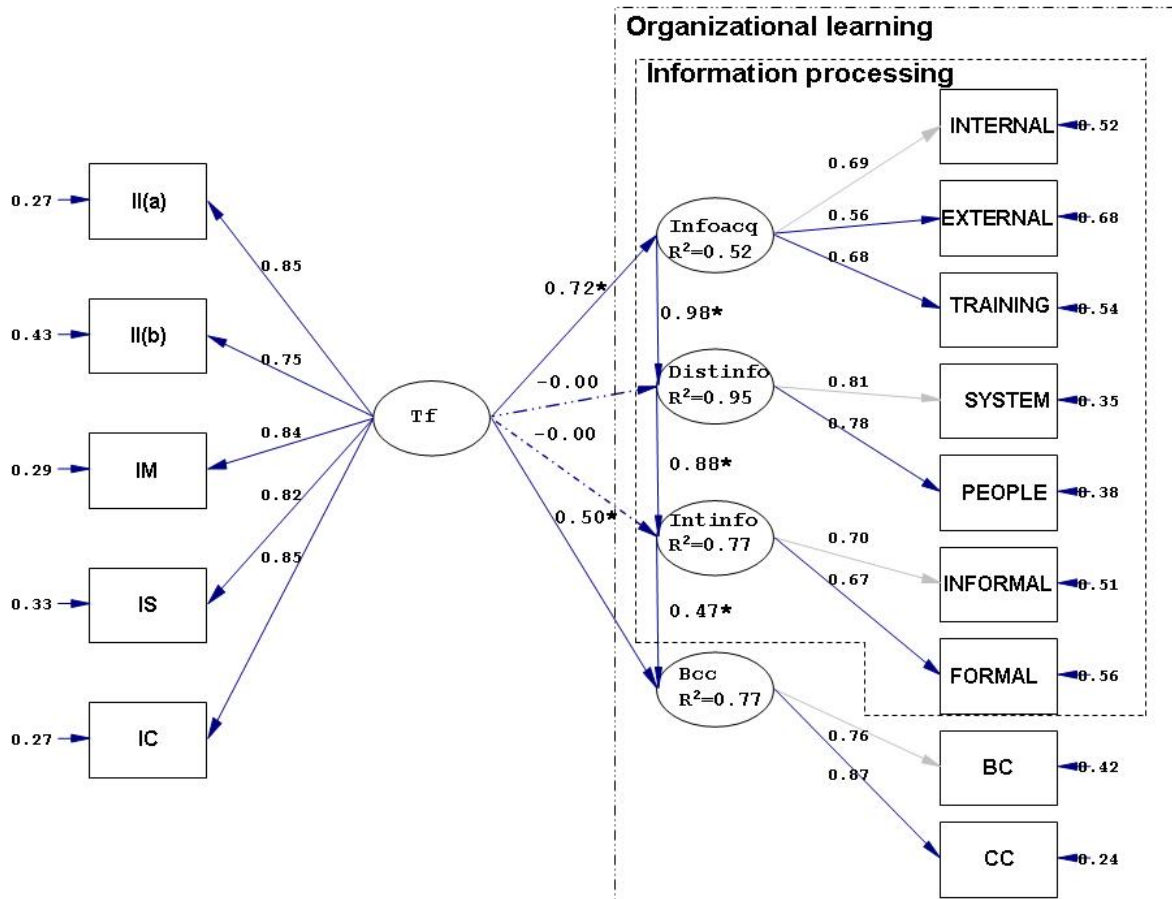
* Statistically significant at p<0.001.

Figure 2. The impact of transformational leadership on organizational learning.

Hypothesis 1 predicted that transformational leadership will have a strong and positive influence on all four constructs of organizational learning. The results show that only two of these four relationships (H1a and H1d) are statistically significant at p<.001. Transformational leadership demonstrated a strong direct impact on information acquisition (γ = .72) as well as on behavioral and cognitive changes (γ = .50). The impact of transformational leadership on information distribution and information interpretation was not found to be direct but indirect. Transformational leadership demonstrated a strong indirect effect on information distribution via information acquisition (β = .71). Similarly, the indirect effect of transformational leadership (via information acquisition and information distribution) on information interpretation was found to be statistically significant, positive and strong (β = .61). The total effect of transformational leadership on behavioral and cognitive changes, which includes direct and indirect effects, amounts to .79.

The direct and total effects of the transformational leadership on the four organizational learning constructs are summarized in Table 3.

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Table 3: Standardized Direct, Indirect, and Total Effects of the Three Types of Leadership on Organizational Learning

Construct	Transformational leadership		
	Direct effect	Indirect effect	Total effect
Information acquisition	.72	---	.72
Information distribution	.00[n.s.]	.70	.70
Information interpretation	.00[n.s.]	.61	.61
Behavioral and cognitive changes	.50	.29	.79

All structural coefficients (except those marked) statistically significant at p>0.001

n.s. - not statistically significant

--- - not specified in the model.

5 DISCUSSION AND CONCLUSIONS

5.1 Implications for theory

This study's objective was to examine the influence of transformational leadership on the organizational learning process. Our hypothesis was confirmed, by only partially. Transformational leadership affects all phases of the organizational learning process. However, it only directly influences the beginning and ending phases, namely information acquisition, and behavioral and cognitive changes. The two other phases of organizational learning are only affected indirectly. One explanation may be that there is great correlation between the first three phases (the information-processing part of organizational learning). The structural coefficients between information acquisition and information distribution, for example, range from .90 to .98 in the three models we tested. Similarly, the structural coefficients between the information-distribution and information-interpretation phases range from .88 to .94. The information-processing phases of organizational learning process are quite related. Nevertheless, they are distinct constructs as proved by both theoretical arguments (Huber 1991) and empirical research (e.g. Perez-Lopez, Montes-Peon et al. 2005; Skerlavaj, Indihar Stemberger et al. 2006).

The influence of leadership is greatest on behavioral and cognitive changes, which are the final and apparently also the most important phase of the learning process in organizations. The total effect of transformational leadership on behavioral and cognitive changes amounts to .79, Leadership influences behavioral and cognitive changes in two ways. First, it affects them through the previous information-processing phases of the organizational learning process. By facilitating or impeding information processing in an organization, leaders achieve or impede changes in the mentality or behavior of organizational members in order to address changes in the internal or external business environment. However, leaders also influence changes in behavior and cognition directly, over and above the indirect influence through information-processing phases. This is to be expected as leadership is a relatively comprehensive process that guides, structures and facilitates all aspects of activities and

relationships in a group of people so as to guide, structure and facilitate the activities and relationships in the group.

5.2   Implications for managerial practice

New information and knowledge is constantly emerging from sources within and outside the company. Channels and conduits for their distribution are evolving. There is continuous pressure to interpret this information in ways that allow for understanding and exploiting emerging business opportunities. We consider changes as an integral part of the organizational learning process. At the same time, behavioral and cognitive changes are also its most important element. Collecting, spreading and understanding information is a futile endeavor if there are no resulting changes.

The role of leadership in this context is crucial. Above all, leaders need to promote learning at all levels and create opportunities for people to acquire information from heterogeneous sources while leaders have a particularly strong impact on the acquisition of information. Leaders also need to establish opportunities for employees to distribute information, meet, discuss ideas and facilitate interpretations based on wider perspectives. By emphasizing the company's vision and mission, personal encouragement and empowerment leaders need to stimulate employees to act upon this information and support changes that contribute to organizational performance.

Our research also suggests that there are some elements of the organizational learning process which leaders can influence directly, while other elements can only be influenced via indirect means. From this perspective, the information-acquisition phase seems to be crucial. It is of the utmost importance for leaders to facilitate and encourage employees to use all of the available sources, channels and means of both internal and external information acquisition. They should create opportunities for people to meet and talk, be alert to changes in the business environment and above all create an open organizational culture whereby trust and cooperation are valued.

Finally, leaders should bear in mind that they have several mechanisms for influencing the learning process in their organization. This study has focused mostly on the actions and behaviors of leaders. However, organizational architecture, structure, processes, systems, rules, policies and especially culture are also powerful tools available to leaders. Depending on their power, position in the organization and the availability of resources, leaders should use all these mechanisms in order to build an organization that is able to continually learn and adapt itself to its environment, thereby ensuring a long-term successful performance.

5.3   Limitations and further research

This study makes several important contributions to the field. First, it integrates two previously relatively disparate fields of organizational learning and leadership. Second, it empirically proves that transformational leadership strongly impacts learning in organizations. Finally, it expands the scope of empirical research by examining leadership and the learning process in the context of a small transitional economy. By testing existing (predominantly Anglo-Saxon) theories of leadership and organizational learning in different cultural, economic and political contexts, it enhances the generalizability and validity of these theories and constructs.

On the other hand, some of the study's strengths are also its weaknesses. From the methodological point of view, the sample and context are always an issue. While we believe

that using Slovenia as a target population contributes to the research's generalizability, it also poses a limitation that needs to be accounted for. Expanding the research to other nations (with different national cultures, nations of different sizes, histories etc) would significantly contribute to our understanding of the link between leadership and learning.

The second key limitation is the cross-sectional nature of the study. It is possible that at least certain aspects of leadership and its impact on the learning process emerge with some kind of time lag. The longitudinal treatment of data might yield additional insights in our two phenomena and how they relate to each other.

Third, due to its low reliability we were unable to measure the higher-order factor of transactional leadership as specified by the MLQ. Instead, we used contingent reward leadership (which exhibited high reliability and validity) as a proxy for transactional leadership.

Fourth, we limited our research to the direct effect of leadership on organizational learning. Nevertheless, we acknowledge the fact that this impact might be attenuated using e.g. organizational culture and structure as moderating variables. Future research should extend our understanding of the leadership style as antecedent to the organizational learning process by involving some moderating and mediating variables.

Additional insights into this clearly intriguing area of research might be generated by using in-depth (preferably qualitative) studies to answer many of the 'hows' that might have emerged in this paper. While we have tried to explain why leadership matters for organizational learning and how it affects the learning process in organizations there is still a lot to be said about particular leadership mechanisms in relation to learning.

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Appendix

Operationalization of Organizational Learning Constructs (List of Items)

Dimension/Constructs	Sub-dimension/Indicators	Items
Information acquisition (Infoacq)	Internal information acquisition (INTERNAL)	▪ Employees as an extremely important source of information (INFOACQ1). ▪ Previous decisions important for current decisions (INFOACQ2). ▪ Employees are encouraged to participate in formal and informal networks outside of the organizational unit and organization (INFOACQ3). ▪ Other organizational units are an important source of learning new methods and services (INFOACQ7).
	External information acquisition (EXTERNAL)	▪ Reports prepared by external experts as an extremely important source of information (INFOACQ4). ▪ When accepting an important decision our leader tries to get advice or information from sources of outside of the company (hiring experts, contacting managers from other companies) (INFOACQ11). ▪ Our organizational unit has employees whose job it is related to searching for external information (INFOACQ12). ▪ External sources (reports, consultants, newsletters etc.) are extremely important for the operations of our organizational unit (INFOACQ13).
	Training as information acquisition (TRAINING)	▪ Frequently organized internal trainings (INFOACQ9). ▪ In our organizational unit we often send employees to various seminars, workshops, conferences with the intention to acquire new information (INFOACQ15).

Information distribution (Infodist)	System-oriented information distribution (SYSTEM)	▪ Our information system allows for efficient and quality information exchange inside our organizational unit or company (INFODIST1). ▪ We have organized meetings to inform employees on a regular basis (INFODIST3). ▪ We have formal mechanisms and systems in place that allow for the transfer of best practices among various fields of activities (e.g. group-incentive plans) (INFODIST4).
	People-oriented information distribution (PEOPLE)	▪ All members of our organizational unit are acquainted with the goals of the unit and organization (INFODIST2). ▪ There are individuals within our organizational unit who cooperate in multiple teams or project groups with individuals from other organizational units (INFODIST5). ▪ We have individuals whose job it is to collect and internally distribute improvement proposals from our employees (INFODIST6).
Information interpretation (Intinfo)	Informal information interpretation (INFORMAL)	▪ Personal contacts – (INFOINT1). ▪ Team meetings – (INFOINT2). ▪ Committees as decision-makers – (INFOINT3).
	Formal information interpretation (FORMAL)	▪ Seminars, conferences, workshops… – (INFOINT5). ▪ Written memos, notes, letters… – (INFOINT6). ▪ Special expert reports – (INFOINT7). ▪ Forums (e-chat, e-debates) – (INFOINT10).

Behavioral and cognitive changes (Bcc)	Behavioral changes (BC)	• Adaptability to environmental pressures - (BCC1). • Quality of products/services - (BCC2). • Number of products/services offered - (BCC3). • Technology of operation - (BCC4). • Speed of operations - (BCC5). • Introduction of new marketing approaches - (BCC6). • Average productivity of employees - (BCC7)
	Cognitive changes (CC)	• Satisfaction of employees - (BCC8). • Overall atmosphere - (BCC9). • Personal communication between top managers and employees - (BCC10). • Team meetings' efficiency - (BCC11). • Employees' level of understanding of the company's strategic orientation - (BCC12). • Employees' level of understanding of major problems in the company - (BCC13).

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Table 1

Factor Loadings and Construct Validity for the Constructs Used in the Study.

Latent variable	Indicator	Unstandardized factor loading	Completely standardized factor loading	t-values
Transformational leadership (Tf)	Idealized influence (attributed) II(a)	.78	.84	31.97
	Idealized influence (behavioral) II(b)	.60	.74	23.02
	Inspirational motivation IM	.85	.83	30.12
	Intellectual stimulation IS	.75	.83	28.86
	Individual consideration IC	.95	.88	36.41
Information acquisition (Infoacq)	Internal information acquisition (INTERNAL)	.54	.69	19.69
	External information acquisition (EXTERNAL)	.45	.57	15.58
	Training as information acquisition (TRAINING)	.74	.67	20.38
Information distribution (Distinfo)	Information distribution via systems (SYSTEM)	.81	.84	29.00
	Information distribution via organizational members (PEOPLE)	.78	.80	27.33
Information interpretation (Infoint)	Informal means of information interpretation (INFORMAL)	.62	.76	20.09
	Formal means of information interpretation (FORMAL)	.63	.72	21.28
Behavioral and cognitive changes (Bcc)	Behavioral changes (BC)	.51	.76	21.03
	Cognitive changes (CC)	.77	.88	31.17

Table 2

Internal Consistency and Reliability

Construct	Cronbach α	CRI	AVE
Transformational leadership	.91	.95	.68
Information acquisition	.67	.78	.42
Information distribution	.81	.88	.67
Information interpretation	.71	.81	.55
Behavioral and cognitive changes	.78	.88	.68

Table 3

Standardized Direct, Indirect, and Total Effects of the Three Types of Leadership on Organizational Learning

Construct	Transformational leadership		
	Direct effect	Indirect effect	Total effect
Information acquisition	.72	---	.72
Information distribution	.00[n.s.]	.70	.70
Information interpretation	.00[n.s.]	.61	.61
Behavioral and cognitive changes	.50	.29	.79

All structural coefficients (except those marked) statistically significant at $p > 0.001$

n.s. - not statistically significant

--- - not specified in the model.

THEME I

TOWARDS THE ENHANCEMENT OF SOCIAL RESPONSIBILITY AND BUSINESS ETHICS: MODERN THEORY AND PRACTICE

I-2

Ethics and social responsibility in specific industrial contexts

CSR PRACTICES IN POLAND AND SOME OTHER CEE COUNTRIES

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1. INTRODUCTION

In recent years, the concept of Corporate Social Responsibility (CSR) became one of the main priorities of the EU policy. European Commission presents the view that the introduction of CSR in corporate management leads to a more stable growth of companies, and it could play a significant role in the achievement of goals and objectives defined in Lisbon Strategy. The Commission's position on this issue is most extensively expressed in the so called Green Paper of CSR. It defines the corporate social responsibility as an idea that firms adopt the development strategies that take into account not only the social interests and the environment, but also try to cope with the interests of all stakeholders.

This publication induced a widespread debate about the ways in which the EU could promote the social responsibility, and in particular the way it could encourage the companies of member countries to introduce pro-social, innovative methods of management and to improve the transparency of business practices. It has been stressed that undertaking such actions on a larger scale than required by legal regulations could contribute to an increase in company's competitiveness, and the CSR concept should become an integral part of strategic management.[1] The document considers also a very important issue of involving the small and medium size firms in the corporate social responsibility. European Commission points out that CSR programs should be implemented not only by transnational corporations, but are expected to become an important element of the smaller firms strategy across the European Union.

The debate started with the publication of *Green Paper* (2001) lead to the publishing of the so called *White Paper* (2002). This document besides summarizing the results of the earlier public discussion focuses on four main areas of corporate social responsibility which require EU involvement. These are:

- education, i.e. an increase of knowledge about CSR through an exchange of experience and best practices between individual companies as well as between the member states,

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[1] See *Green Paper* (2001).

- promotion of transparency and convergence of procedures and tools implementing CSR, i.e. popularisation of the codes of ethics, management standards and the principles of auditing and reporting,

- creation of European Multi-Stakeholder Forum on CSR,

- introduction of CSR to all EU policies, i.e. employment policy, environmental policy, consumer policy, trade development policy, and overall economic policy.[2]

One of the most important initiatives that resulted from the Lisbon Strategy was the project "European Initiative for CSR – 2005". Its main goal was to win 500 thousand companies and business partners for activities helping promote CSR by the end of 2004. The primary idea of the initiative was to send a message that "CSR is a market strategy that works and gives firms an opportunity to achieve a substantial competitive advantage."[3]

This initiative provided an easy access to practical solutions in managing CSR and to the set of instruments that allow companies to fully utilize their resources by doing business compatible with the idea of social responsibility.

The following projects constitute the key elements of the initiative:

- European CSR Academy – a platform for a dialog between business and academia. Its main goal is to stimulate research on measurable market reasons for CSR in firms' activity, an increase of educational level about the CSR principles at the European universities.

- SRI Watch – Socially Responsible Investment Watch, i.e. an internet data base that contains information on all funds and indicators used in Europe in the field of environment protection and business ethics.

- SME Key – an internet tool that encourages the small- and medium-size enterprises to engage in CSR through a vast number of informational material and a rich collection of case studies. It shows the benefits of implementing this idea in the firm's divisions, company's organizational culture, as well as in the individual branches of the economy.

The question that we pose is about the extent of knowledge and understanding of the CSR concept among Polish firms and consumers.

2. POLAND AND THE PROBLEM OF CORRUPTION

Before we analyse the perception of the CSR idea by Polish producers and consumers, the problem of corruption should be mentioned. First of all there are many historical reasons in ambivalent approach to corruption in the Polish society. They have been specified in The

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[2] See *White Paper* (2002).
[3] Compare Greszta (2001).

World Bank Report on Corruption in Poland – An Overview of the Most Important Fields (2000). It should be noted that Poles in spite of strong feeling of national identity have relatively weak public spirit.

There is a general opinion that Poland is perceived as a corrupted country. But some statistics show that only 1.6 per cent of firm's revenues comes from bribes, that is less than the average in the region of Central and Eastern Europe equal to 2.2 per cent.[4]

The bad image of Poland as a corrupted country comes to some extent from the past in totalitarian system in which corruption and bribery were the essence of its functioning. The same problem is being reported in other countries in the region of Central and Eastern Europe.

Table 1. Corruption perception ranking of selected Central and Eastern European countries.

Rank	Country	Rank	Country
27	Estonia	70	Poland
31	Slovenia	85	Romania
44	Lithuania	107	Belarus
47	Czech Republic	107	Ukraine
47	Slovakia	107	Kazakhstan
51	Latvia	126	Albania
70	Croatia	126	Russia

Source: Transparency International, Global Corruption Report 2006.

It is worth mentioning that the degree of corruption in Polish business environment is not perceived by Polish firms as more severe than in other European countries. The latest research conducted by Prince of Wales International Business Leaders Forum (2002) shows that only less than 1/3 of respondents out of 500 biggest Polish firms are convinced that the business environment in Poland is more corrupt than in other European countries. The remaining more than 2/3 of them believe that the level of corruption in Poland is the same or smaller than in other countries in Europe. It should be mentioned that all of the questioned firms are intensively engaged in international trade. The same research shows that the accession of Poland to EU reduced the perceived internal risk of corruption within the firm.

□ **Lower** ▣ **Relatively lower** □ **Same** ▨ **Relatively higher** ▦ **Higher**
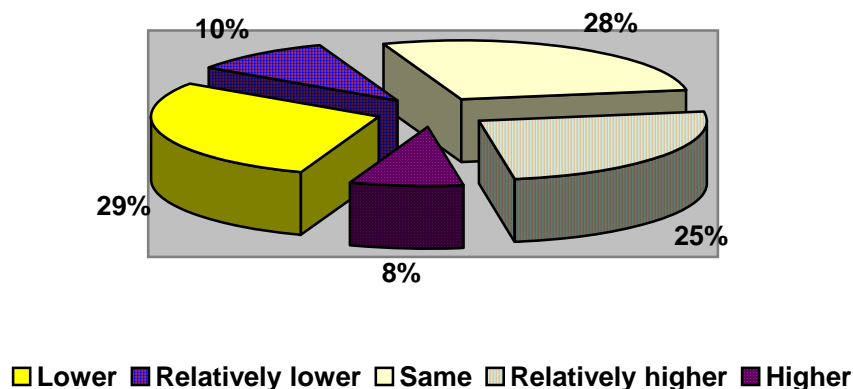
Figure 1.How Polish managers perceive corruption in Poland in comparison to other European countries?

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[4] Compare, e.g.., Hellman, Jones, and Kaufman (2002).

There are many institutions in Poland that actively educate business circles how to fight corruption. Among those heavily involved are: Helsinki Foundation, Stefan Batory Foundation, Transparency International, Corporate Social Responsibility Forum etc.

Since 1999 Poland is also a signatory of Anti-corruption Convention OECD, and since January 2006 the Central Anti-corruption Office (an independent governmental agency with a wide range of competence) started its operations with some spectacular successes.

3. THE PERCEPTION OF THE CSR IDEA BY POLISH CONSUMERS AND PRODUCERS

The report "Economic Consciousness of the Society and the Image of Business" published by the Institute of Public Affairs in 2004 shows the degree of sensitivity of Polish consumers to various social engagements of firms.

- More than 2/3 of respondents (68 per cent) declare that they purchased products of a given firm, because part of the revenue was earmarked for an important social cause, e.g. charity.

- Almost half of the respondents (48 per cent) admit that they purchased a given product because the producer showed concern about the natural environment (e.g. the firm uses packaging based on recycled material or is not testing its products on animals).

- Similar share of respondents (46 per cent) admits that at least once they chose product because the producer was a sponsor of a cultural or a sports event.

- The remaining respondents that never used any of the above criteria in their decisions about purchases usually justify their behaviour with the lack of knowledge on this subject, but not the negligence of the social issues.[5]

The analyses of the above results provides the evidence of a rapid increase of consumer consciousness in Poland and their sensitivity to social issues while making the purchase decisions. Thus, it is worth investigating whether Polish companies are ready to meet those demands. According to the 2004 report of the Centre for Business Ethics, 99 per cent of managers declare that it is very important to apply ethical principles in a firm, and almost 2/3 of them is of an opinion that ethical behaviour contributes to a business success through an improvement of organizational culture and strengthening of the firm's image.[6]

It is also important to recall that the development of the CSR idea is especially slowed down by the existence of corruption and widespread economic crime that is perceived among the business people.

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[5] See *Świadomość ekonomiczna społeczeństwa i wizerunek biznesu* (2004).
[6] Compare Badanie Zespołu Etyki Życia Gospodarczego, IFiS PAN, and Centrum Etyki Biznesu WSPiZ im. L. Koźmińskiego (2004).

At the same time the first national report on the ethics of Polish firms in 2004 based on the sample of 800 companies shows that:

- Only 41 per cent of respondents believe that it is possible to avoid unethical business activities.

- 45 per cent of them believe that ethical behaviour is possible in most of the cases.

- 13 per cent of respondents are of an opinion that it is not possible to maintain the long-run market position without using unethical measures.

- Responsible business dealing is more often attributed to state companies (53.6 per cent) rather than to private firms (28.8 per cent), and to the Polish firms (56 per cent) rather than to the foreign companies.[7]

Research conducted by the Responsible Business Forum in February 2005 on a sample of 1024 respondents shows how Polish consumers perceive the idea of responsible business and the motives attributed to Polish firms undertaking such activities. The key results of the research are:

- The vast majority of Polish consumers (68.8 per cent) views as a responsible business the ethical conduct associated with company's activities, i.e. ethical treatment of employees, business partners, and clients.

- According to respondents, the main reasons of fair and ethical behaviour of companies are:
    - personal characteristics of management (39 per cent),
    - profitability of such actions (30.6 per cent),
    - social expectations (9.5 per cent),
    - EU requirements (7.1 per cent).

- The motives attributed to social engagement of firms are perceived as:
    - profitability of such actions (51.3 per cent),
    - management's sensitivity to social issues (22.8 per cent),
    - social expectations (12.8 per cent),
    - EU expectations (3.7 per cent).[8]

The 2004 Report of the Centre for Business Ethics points out that:

- 80 per cent of companies views social norms as the ethical standards, and they lack any documents regulating these issues.

- Among the firms that do not have written Codes of Ethics around 55 per cent plan to introduce such codes in the nearest future, but 37 per cent have no intention to publish a written code.

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[7] See Badanie Zespołu Etyki Życia Gospodarczego, IFiS PAN oraz Centrum Etyki Biznesu WSPiZ im. L. Koźmińskiego (2004).
[8] See *Odpowiedzialny Biznes w Polsce 2004* (2005).

- 2/3 of the firm declares lack of any training in business ethics.

- Above 70 per cent of managers believe that the implementation of the CSR idea is strengthening the brand name and creating the positive image of the firm, and conducting activities within the framework of the Cause-Related Marketing (CRM).[9]

- Only 30 per cent of managers in Poland understand that CSR constitutes a comprehensive management style that requires building a firm's complex strategy based on the idea of social responsibility, and not just undertaking occasional activities.[10]

4. A COMPARISON OF ATTITUDES TOWARDS CSR IN POLAND AND OTHER CEE COUNTRIES

In the first quarter of 2005, the World Bank and the European Commission conducted a survey of attitudes towards CSR in Central Europe. The sample consisted of 154 firms from Poland, 150 from Hungary, and 150 from Slovakia. The firms' selection was based on the level of turnover and the number of employees.
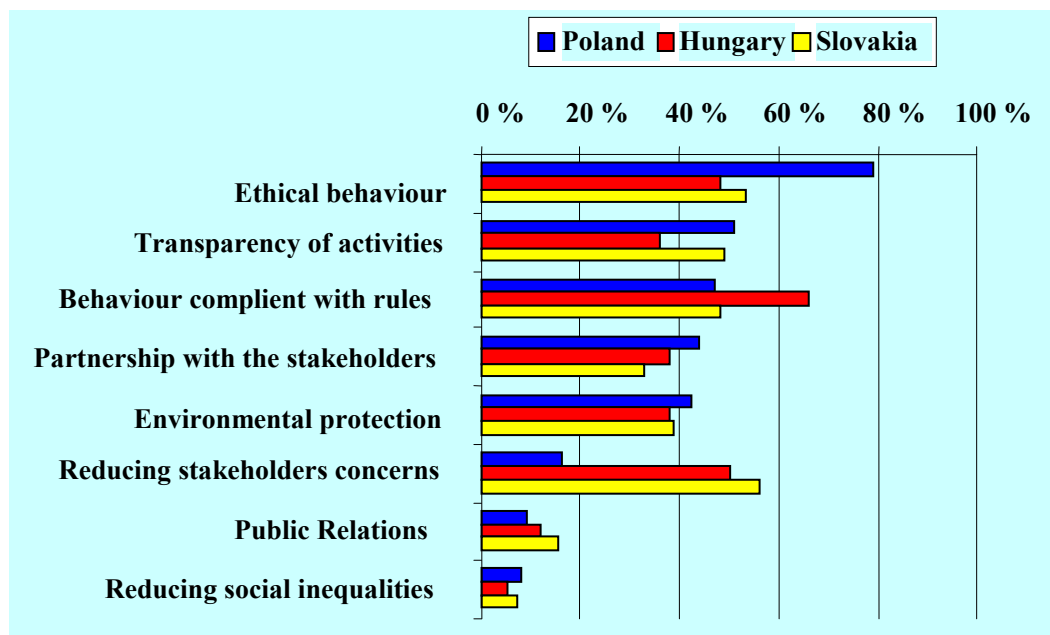
Figure 2.   Interpretation of the CSR concept.

The understanding of the concept of responsible business differs from country to country. In Poland, 80 per cent of managers view CSR as ethical behaviour. In Hungary, 65 per cent of managers believe that CSR means obeying the legal regulations. In Slovakia, almost 60 per cent of managers consider CSR as coping with the stakeholders' concerns.

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[9] *Cause-related marketing* is a strategie of building the image of a company in relation with the sponsorship of charitable organizations, NGOs, social or ecological organizations. See, for example, Kotler, and Lee (2005).

[10] Kietliński, Reyes, and Oleksyn (2005).

All Polish, Slovak, and Hungarian firms define their main stakeholders in a similar way, i.e. shareholder, clients, and employees. The Hungarian, and Slovak firms believe that the next important stakeholder is their government, but Polish firm indicate local communities before the central government. It should be noted that NGOs are not considered as an important stakeholder in any of the analysed countries. It would be worthwhile to compare these definitions with the list of most important social partners for the companies listed included in the Dow Jones Sustainability Index. Sustainability Asset Management Research showed the following ranking: shareholders (100 per cent), local communities (94 per cent), government (83 per cent), suppliers and service providers (61 per cent), labour unions (61 per cent), NGOs (56 per cent), and media (50 per cent).

The codes of ethics are most popular in Hungary, where 60 per cent of firms put the rules of conduct in writing. However, in Hungary, there is the smallest number of regulations preventing corruption, and the highest number of rules concerning the financing of candidates for public positions.

Polish and Slovak companies exceed the Hungarian ones in implementing non-discriminatory practices in the recruitment process. Hungarian firms prefer engagement in technical training, housing, and support of ethnic minorities. In all three countries, the main beneficiary group of social projects are young people. Although Poland has more advanced projects in the environmental protection it has less achievements than Hungary and Slovakia in educational activities in this field. The programs of utilizing recycled materials are widespread in Poland and Hungary, where over 70 per cent of firms introduced such programs. In Hungary more than 41 per cent of companies have been granted environmental certification.
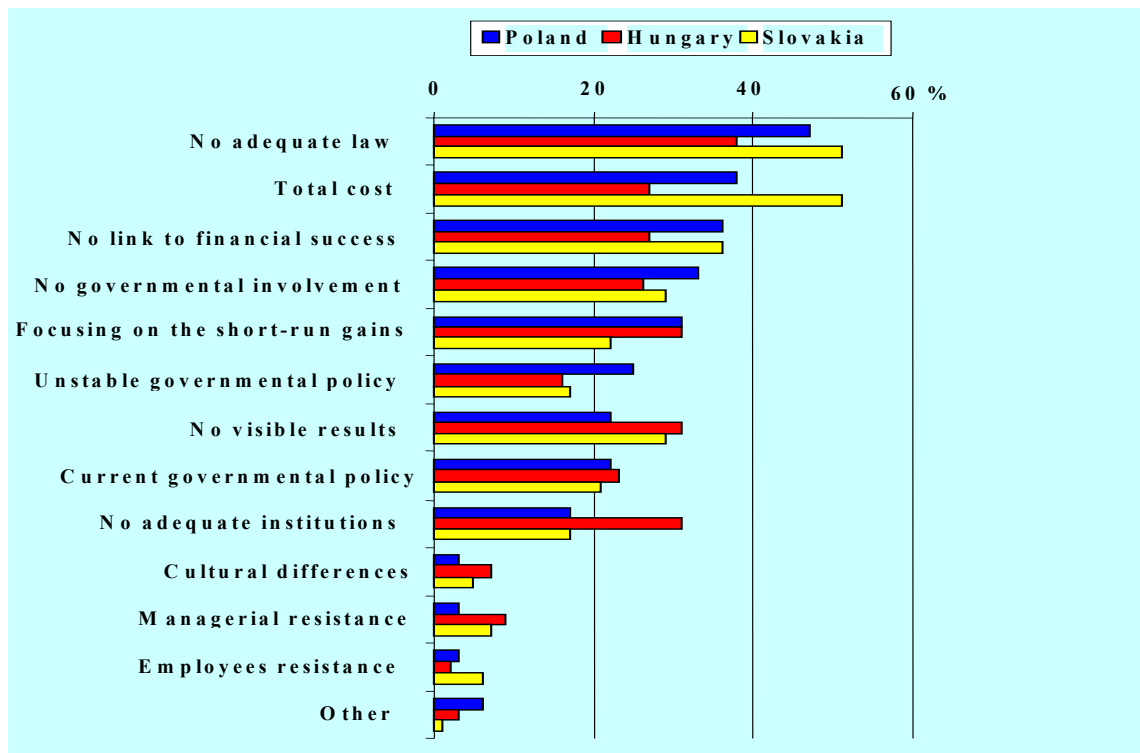
Figure 3.   The main barriers to implement CSR.

The lack of relevant legal regulations is considered to be the main barrier to the CSR implementation in all discussed countries. Hungarian firms complain about the lack of relevant institutions, clear results, and an excessive focusing on the short-term benefits. Slovak firms stress mainly the costs as the barrier to the CSR implementation. Polish as well as Slovak enterprises more than Hungarian ones see the significant risk of including social consideration in doing business. In particular, they name potentially higher operating costs and the negative impact on the firm's profitability.
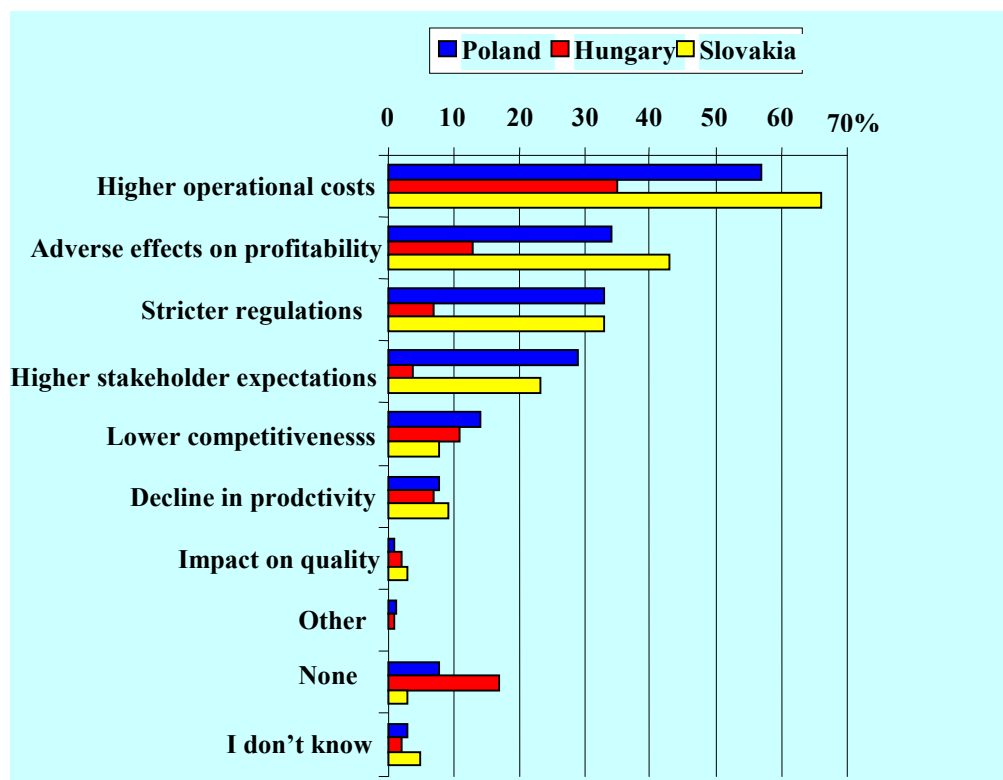
Figure 4.   Risks associated with the implementation of CSR.

More than 95 per cent of companies in all surveyed countries believe that the most important internal benefit of CSR is stable long-run firm development. Hungarian and Slovak enterprises more than Polish ones perceive the rise in productivity, quality of products, and the sales revenue as the results of ethical business practice. Although the firms in these countries differently assess the internal benefits of CSR, they all agree that the main external gain is an increase the firm's reputation and, indirectly, balanced development of the entire economy.

In all surveyed countries, there is similar assessment of activities that could help in the introduction of CSR. Almost all firms (95 per cent) indicated the loan subsidies, greater role of local governments, tax exemptions and the recognition by the business partners as the main factors encouraging the implementation of CSR practices.[11]

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[11] *Enabling a Better Environment for CSR in CEE Countries Projects*, FOB Conference, Warsaw, November 7-8, 2005.

5. CONCLUSIONS

Analyzing the degree of internalization of the CSR idea in Polish companies it is necessary to remember that it still faces many barriers in the form of complicated tax system, high costs of labor, unstable regulation of economic activity, widespread corruption etc. On the other hand, any attempts of companies to engage in socially responsible programs are perceived as a campaign to build firm's image, and not as a sign of social sensibility and an integral part of a company's long-run strategy aimed at a balanced development.[12]

In many, especially small- and medium-size enterprises, the issue of CSR and the problems related to business ethics are not perceived as a chance to enter a new area of competitiveness, innovations and broadly understood quality orientation, but rather a source of costs and troubles, redundant and not very constructive moralizing. International certification of CSR is not very much known in Poland.

At the same time it is worth remembering that Polish business environment is significantly less developed than in the old members of European Union, therefore any sign of implementation of CSR, even just for the sake of an image campaign, should be warmly welcomed. If Polish firms will engage in the CSR only because of the outside pressure, e.g. from the EU, or because of the willingness to improve their image, this concept will never become anything more than just a noble idea, and will not be a significant factor of business-life improvement in Poland.

A sign of real internalization of the CSR idea in Poland will be a change in the management style and a practical implementation of the integration of social policy with the overall firm strategy through an introduction of socially responsible management model.[13] Effective strategies of implementing CSR should take into account the interests of all stakeholders of the firm. The activities that are aimed at building the image ought constitute its integral part, but should not be considered the most important ones. Otherwise Michel Porter is right to warn that "CSR is a religion with a large number of priests that requires neither proof nor theory".

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[12] One of the basic model of management aimed at the social duties was offered by Swanson (1995).
[13] See Rybak (2004)

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SOCIAL RESPONSIBILITY OF THE CROATIAN BANKS

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Key words: *social responsibility, banking system, sustainable development, general public, foreign owners*

1. INTRODUCTION

Social responsibility as a beginning of a new approach that should, including many other factors, result with secured sustainable development is the key for catching up of the developing countries such as Croatia. The problem of low level of social responsibility is very visible in Croatian banking system. Banks in Croatia have passed through several different phases just like banks in other central and Eastern European countries (CEE) that have passed the transformation from socialism to capitalism. We can see that there were three main phases that banks in Croatia went through; sanation which was made by government financed from citizens' money, than phase of fitting into global trends such as deregulation and increasing capital mobility at the end of this intensive process banks in Croatia come up with new foreign owners, strengthened and able to influence structure of national investments. This phase was characterized by rather substantial increase of offers of new financial instruments to general public and decrease of offers to economic subjects that are supposed to be the ones that should carry production and development of whole country.

Was that the trigger that made Croatian central bank intervene in order to change these trends? What is the real situation in Croatian banks and how socially responsible are they? These are the questions that this article will answer.

The purpose of this paper is to show how low social responsibility in goals of Croatian banks effects negatively on the development of the country.

2. HISTORICAL BACKGROUND OF CROATIAN BANKS

How did it happen? How did the Croatian banks become owned by foreigners? The whole story can be presented through 3 phases:

The 1st phase can be called the phase of foundation and it took place from early years of 20th century until 1995. What we can say about this phase is that Croatia and other CEE countries had started to build national banking sector at the same time when some western European countries started to enter international markets. The market of the banks in that period was focused on corporate banking while the consumer banking was still undeveloped.

The 2nd phase is called privatization because the period from 1995 until 2000 was mainly characterized by privatization of state owned banks. In this particular moment, foreign banks have entered Croatian market buying some local banks. During this process, that took place at the end of the war that was going on in Croatia, several new local banks went through bankruptcy. Opening of this market to international participations increased competition in corporate banking and also retail banking market showed rather fast development.

The 3rd phase of consolidation has started in 2001 and it is still in progress. Characteristics of this phase are increased competition among new owners and formation of new strategic plans of international banks in Croatia. At the same time there are many changes in structures and needs of consumers of banking products. For example, small and medium enterprises (SME), as a market segment start fast growth and need banking institutions to follow their financial needs. However, access to bank loans generally or at affordable terms is granted to only 80% of SME.[1]

Maybe the best way to show these phases is through figures.

Table1. Investment structure of the Croatian banks in 3 dates from 3 different phases

	December 1993		December 2000		December 2005	
DOMESTIC CURRENCY LOANS	**Millions HRK**	**%**	**Millions HRK**	**%**	**Millions HRK**	**%**
1. Loans to central state	136,70	2,06	2.196,70	4,23	4.495,00	3,35
1.1. Loans to republic of Croatia	10,80	0,16	1.224,90	2,36	1.314,90	0,98
1.2. Loans to local units	124,90	1,88	972,10	1,87	3.180,10	2,37
2. Loans to local state institution	11,40	0,17	996,80	1,92	1.613,90	0,01
3. Loans to enterprises	4.575,60	68,93	25.328,00	48,80	49.105,90	36,64
4. General public	1.901,20	28,64	23.242,10	44,78	78.162,40	58,32
5. Loans to other banks	10,00	0,15	33,50	0,06	46,50	0,03
6. Loans to nonbankin financial institutions	4,10	0,062	105,50	0,20	591,80	0,44
A.TOTAL (1+2+3+4+5+6=)	**6.638,00**	**100**	**51.902,80**	**100**	**134.015,60**	**100**
FOREIN CURRENCY LOANS						
1. Loans to central state	796,00	7,28	779,10	10,69	6.952,10	33,24
1.1. Loans to republic of Croatia	598,10	5,47	623,50	8,55	5.992,80	28,65
1.2. Loans to local units	197,90	1,81	155,50	2,13	959,30	4,59
2. Alones to local state institution	-		171,60	0,24	63,00	0,30
3. Loans to enterprises	10.137,70	92,71	6.284,00	86,19	12.973,50	62,03
4. General public	0,90	0,0008	56,30	0,77	393,30	1,88
5. Loans to other banks	-		-		19,90	0,01
6. Loans to nonbanking financial institutions	-		-		512,30	2,45
B.TOTAL (1+2+3+4+5+6=)	**10.934,60**	**100**	**7.291,00**	**100**	**20.914,10**	**100**
TOTAL (A+B=)	**17.572,70**		**59.193,90**		**154.929,70**	

Source: CNB.

From the data given in this table it is very clearly visible how the structure of the loans changed in these phases. Loans made in domestic currency are more dominant in 2nd and 3rd

[1] Vidučić, Lj.(2005)

phase because the rate of inflation became more stable. In order to show more accurately the trend of expansion of loans to general public we will concentrate on these data. Extracted from these data are the following facts;

Loans to
enterprises
83,73%

Other loans
5,45%

General
public
10,82%

■ Loans to enterprises ■ General public ■ Other loans
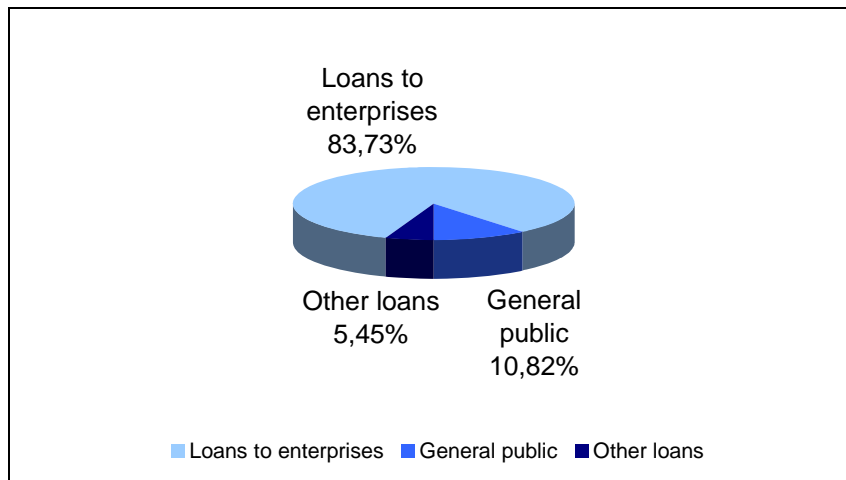
Figure 1.   Structure of loans in Croatia in December 1993

Loans to
enterprises
53,40%

General
public
39,36%

Other loans
7,24%

■ Loans to enterprises ■ General public ■ Other loans
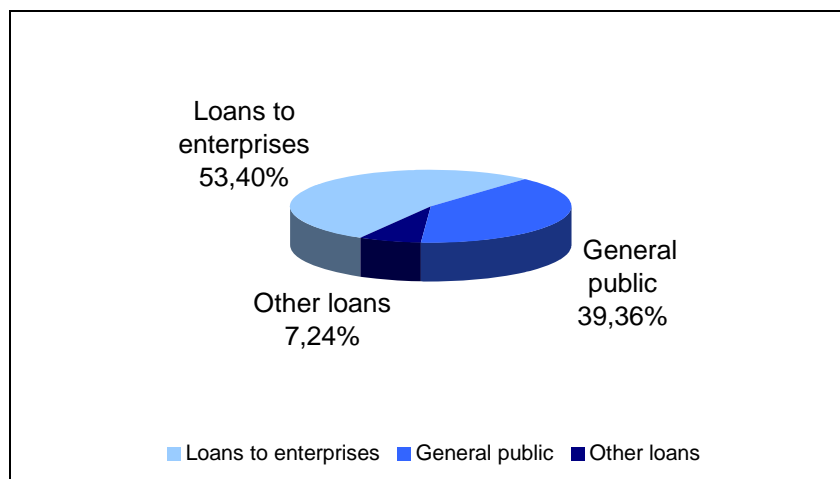
Figure 2.   Structure of loans in Croatia in December 2000

Loans to
enterprises
40,07%

General
public
50,70%

Other loans
9,23%

■ Loans to enterprises ■ General public ■ Other loans
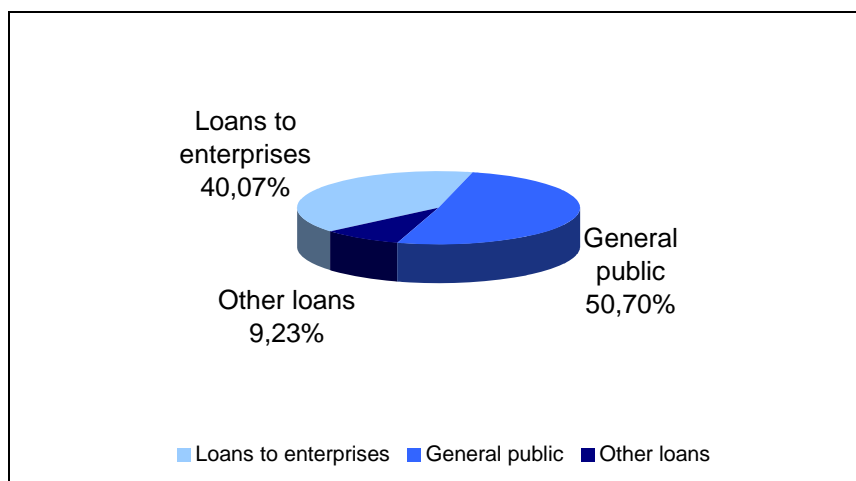
Figure 3.   Structure of loans in Croatia in December 2005

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In 2005 commercial banks granted credits in the total amount of 154.929,7 millions HRK (both denominated in Croatian kunas and foreign currencies). In comparison with the end of the 2004 year the growth of total amount of credits has been 20,3%. At the end of 2005 the share of credits granted to the enterprises was 40,07%.

It becomes very visible that banking industry has changed its orientation from predominantly supporting of enterprises, which is generally held as loans for production and development, to expansion of loans to general public.

This "unlimited" expansion of loans to general public gives an impression that current bank owners do not consider their profit in longer period. Requirements for sustainable development are not possible to be completed unless the bank system becomes more long terms orientated.

2.1. Banks in Croatia today

In order to understand better the motivations of currently present banks in Croatian financial market it is useful to know who we are and in what way we are dealing with in this moment.

Financial market in Croatia is dominated by banks. They are holding over 79% of total assets of financial institutions. Other financial institutions are still developing. That underlines the importance of banking system for Croatia. According to the Banks Act, a bank is a financial institution established as a public limited company with headquarters in the Republic of Croatia.[2] The establishment is based on a licence issued by the Croatian National Bank (CNB). The minimum amount of authorized capital required to establish a bank is 40 million HRK. A bank must follow the principles of liquidity and solvency, and the minimum rate of capital adequacy must be at least 10%. The law says that both direct and indirect acquisition of a bank's shares in an amount which secures capital interest or voting rights must be approved by the Croatian National Bank beforehand, specifically: if 10% or more (a qualifying holding), 20% or more, 33% or more, 50% or more and 75% or more shares are acquired. A bank conducts business on the basis of an adequate licence obtained from the Croatian National Bank (CNB). Along with banking services, it can also provide other financial services, provided it gets a licence for it from the Croatian National Bank. Banking services include receiving cash deposits, granting loans and other investment of funds in one's own name and for one's own account, as well as issuing means of payment in the form of electronic money.[3]

Foreign ownership share of total assets in 2005 was 91,3%, 14 banks are either fully or majority-owned by foreign entities and two banks are fully or majority-owned by the state. That is the result of processes showed before but facts for themselves are not the ones that show level of social responsibility but the previously shown trend of increasing loans to general public. Finally we can consider entrance of foreign banks into Croatian market as a very important foreign investment, witch could be considered as positive for domestic economy.[4]

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[2] Zakon o bankama (2002).
[3] Croatian Chamber of Economy (2006)
[4] Galac T., Kraft E.(2001)

2.2. Asymmetry of knowledge

In banking and financial sector we usually deal with asymmetry of information[5], but in case of relation between bank and general public sector it is not only that kind of unbalance that exists as a problem between positions of these two subjects involved. Maybe even greater problem is "asymmetry of knowledge" by which we mean the lake of proper education of general public in use of new financial instruments. If we know that only 7% of people in Croatia have university or collage degree, and that some things connected to financial offer of banking institutions are not even understandable for this small pattern of people belonging to this part of population. Reasons are historical but it does not mean that we should ignore them. Transition in Croatia was very fast and it also took place during the war in Croatia. Since the population in economies in transition did not have possibility to prepare and educate themselves, generally they are not able to be completely reasonable and to understand completely all elements that can come up from taking an obligation as loan is. How loans are presented makes also difference. Sometimes there is too much unimportant information offered instead basic ones that are really important. For example, most banks underline nominal interest rate and only with small letters beneath all kinds of less important information put the information about effective interest rate.

If there was a better regulation that should control communication between bank and costumer from general public, and if there was some kind of public service organized and conducted by government in order to consult and educate general public, this kind of "asymmetry of knowledge" should be minimized.

The banking system in Croatia has many challenges to meet ahead. The way that banks choose to deal with new problems will determinate also their position in context of social responsibility. The new strategies that banks will take will also determine how important for them will be interaction with the society. And on the other hand government's responsibility is to take care and protect interests of its own citizens.

3. THE GOALS OF THE CROATIAN BANKS

The main goal for the bank as institution is a profit. Social goals are not primary for the bank but in a way bank is a "public good", because it fulfills many public interests and demands of the community. In terms of social responsibility we could say that bank shows traces of socially responsible functioning if they do not discriminate anyone and provide their services to all members of the community. Above that there is also the bank's stability, safety, price efficiency and also bank's profitability, since bank pays contribution on its profit, so high profit brings more contribution.[6]

But is this satisfying approach? When we analyze strategic plans of banks we can talk about social responsibility from completely different prospective. Bank that plans to work in this area in long terms has to have more feeling for social responsibility. What do we mean by that? Answer is simple if one plans to make a profit in short terms, one doesn't have to care what happens in long terms, but wanting to make a profit in long terms, one has to be aware

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[5] Pojatina, D. (2006)
[6] Leko, V. (2004)

that his investments should do some good to general public by increasing productivity and investing in development.

We could say that distribution of bank loans can give as rather clear picture on how they plan their future in Croatia.

Marketing goals of the banks can sometimes look as a socially responsible actions and there not to be underestimated. For purposes of creating their own positive image[7] banks are financing many socially important events and activities. This does some good to banks and also does some good to general public. Anyway it is very positive and although it has been done exclusively for marketing purpose it provides some benefits to the general public.

4. LOANS STRUCTURE OF CROATIAN BANKS TO GENERAL PUBLIC IN COMPARISON WITH BANKS OF SELECTED COUNTRIES

Many eminent experts will agree that the problem is not only negative, in context of sustainable development, distribution of bank loans, but the structure of loans to the general public makes story even more dramatic.

Table 2. Loans to general public USA at the end of 2004

BANK FACILITIES	BILLION in USD	%
Total	13.543	100,00
Housing loans	9.701	66,70
Personal loans	2.151	14,80
Other loans	2.691	18,50

Source: Flow of funds account of the U.S.", 4Q 2005, adopted from Leko, V. (2005), pp.8

Table 3: Loans to general public in EU in 2004

BANK FACILITIES	BILLION in EUR	%
Total	3.805	100,00
Housing loans	2.593	68,10
Personal loans	514	13,50
Other loans	698	18,40

Source: "Monetary statistics", ESB, February 2005, adopted from Leko, V. (2005), pp. 9

Table 4: Structure of the bank loans to a general public in Croatia, at the end of September 2004

BANK FACILITIES	Millions in HRK	%
Total	58.769	100
Housing loans	19.581	33,3
Mortgage loans	2.543	4,3
Car loans	7.216	12,3
Credit cards debt	2.663	4,5
Other loans to general public	26.765	45,4

Source: Croatian National Bank, Bulletin No. 115, October 2004, adopted from Leko, V. (2005), pp.10

The distributions of loans can be better seen from figure 4.

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[7] Tomašević Lišanin, M. (1997)

The structure of loans to general public in USA
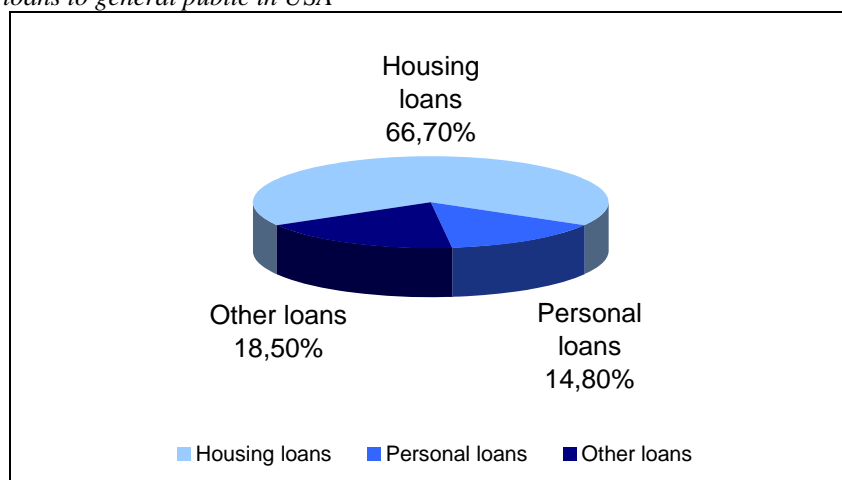
The structure of loans to general public in EU
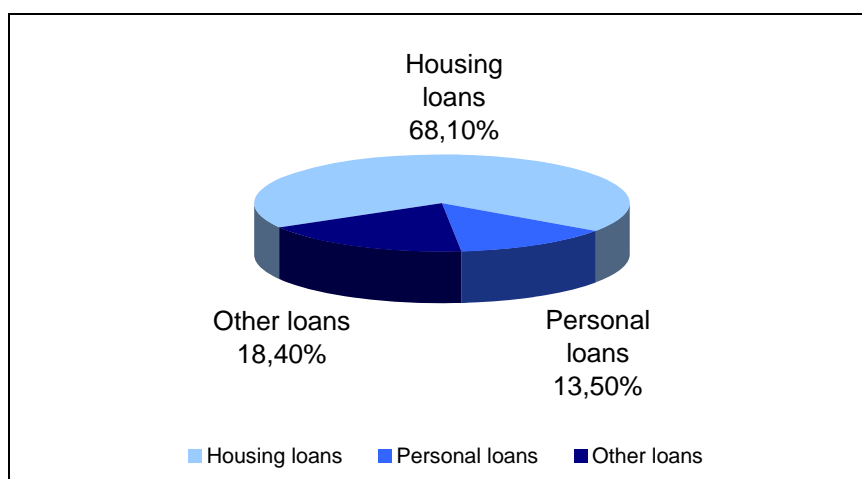
The structure of loans to general public in Croatia
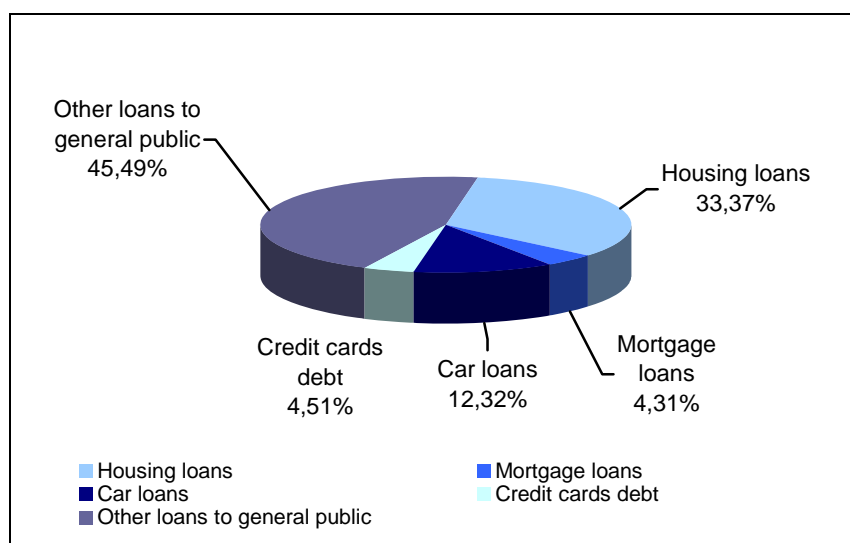
Figure4. Comparison among structures of bank loans in; USA, EU and Croatia

If we compare data from these diagrams we can say that the structure of the loans for general public in USA and EU countries are pretty much the same. Great majority of general public loans are distributed for housing loans, little more than 10% is being spent on different "consumers' loans", and less than 20% is to be spent on different goods. In Croatia things look much different; housing loans take only little bit more than 30% of the whole amount that is distributed for loans to general public, and what is even more scaring is that "consumers' loans" take more than 45% of all loans to public. It shows how people in Croatia, as in other transition countries have urge to consume beyond there actual possibilities, and how banks take advantage from that situation. Reason of this "consummation hunger" could be found in a sudden opening of the market in Croatia to export of the different goods that were not so easily accessible before in times of socialism.

In democratic countries everyone should be able to decide freely how to spend money that one earns, but as for example in Australia, banks should be obligated to show them what are there realistic possibilities and not to make them poor.

Things are getting even worse from year to year. In 2006 from data collected by Croatian National bank (CNB) red alert is to be switched on, the growth of bank loans to general public goes beyond 24%. The CNB has answered with new regulations that will be effective from the beginning of 2007, and basically they should stop the growth of the loans in total on the level of 12% because every percent of the growth beyond 12% would produce more costs than benefits to the banks. CNB has installed this measure in order to stop growth of loans to general public but by the lows and regulations of EU all regulations have to be applied to all sectors, meaning that rules have to be same whether loans are to be consumed in general public or in small and medium enterprises. Banks have already answered that their response to this measures is going to be increased interests on loans to enterprises. This kind of response gives as a clue on how high banks steam CNB and how inefficient are the "legal tools" CNB has in disposition in order to make banking system more socially responsible.

Among new documents issued by CNB one that is bringing more order in relationship between banks and general public is the one consisted from guidelines for managing the credit risk that is occurring as a result of issuing loans to the general public. Many articles are putting order into market but some of them are very discussible from social responsibility point of view. In particular the article that defines that maximum of monthly payments to the banks are on the same level as monthly income one has.[8] Many existing lows and regulations are to be improved if we want them to work better for booth; general public and banks.

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[8] Hrvatska narodna banka (2006).

5. CONCLUSION

The situation is very serious and it demands immediate actions. Loans to general public are going wild and they are threatening to cause financial collapse and poverty of general public in Croatia. The causes are to be the first ones to be defined. Taking in consideration what was earlier stated in this article the causes could be:

- Lack of efficient legal instruments that Croatian National Bank has to make order in banking sector.

- General public is not educated enough to be left on its own in making financial decisions.

- Government through Ministry of Education and Ministry of Finance or some other services did not try to educate people in order to prepare them to use new financial products and to protect them.

Someone could say that the profit is always going to be on the first place for the banks but if we put bank goals in long term prospective we could conclude that the bank which plans to exist on one market for longer period has to modify its strategies. By making restrictions in expansion of loans to general public and by distributing more loans to enterprises, bank does not only show high level of social responsibility but at the same time protects its own long term interests.

This has not been the way that banks usually think but in order to achieve this it would be very useful to have the legal instruments to make them think and act differently. Croatian National Bank is trying to make a difference but the instruments they have on disposal are not efficient as they are supposed to be. Maybe the one of legal instruments that could work in this situation could be some kind of "time restriction", meaning, definition of minimum time that one bank entering in Croatian banking market has to stay before withdrawing its capital.

Maybe the idea of Croatian Chamber of Economy, that has created Code of Ethics in 2005 for all members, is a very good one to be applied in banking sector in Croatia. Code of Ethics proposed to members contains ethical regulations that members should respect in order to achieve more efficiency but taking in consideration sustainable development and care for environment wellbeing.

Some eminent Croatian experts and researchers have agreed that it will never become a goal of one foreign owned bank and that the only possibility is to make a strong domestic bank that will create different strategies.[9] But the reality is that we in Croatia live in environment created predominantly of the foreign owned banks and we should have the instruments to make them think and act differently.

Also big responsibility is to be taken from different government structures in order to educate and help to majority of general public to use financial instruments as they can, and not to help them become poorer and more dependent upon social care. Without proper education of majority of population especially in dealing with finances poverty is inevitable.

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[9] This opinions were presented at annual Conference of Croatian Economists Society in Opatija in 2006. www.slobodnadalmacija.hr , (acceded 1.12.2006).

Just to conclude this paper in spirit of optimism which is also necessary to be creative, we would like to underline that this year Nobel annual award has been awarded to a men who believed in different concept of banking system. Banker and economist from Bangladesh Muhammad Yunus has shown to the whole world how socially responsible one banker could be. By giving micro credits he managed to have impact on whole community and managed to decrease poverty in his surrounding. With his Grammen Bank he has managed to inspire many people all over the world and we can only hope that bankers in Croatia will be able to sense some of this "socially responsible vibrations".

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FERTILITY TRANSITION IN CROATIA AND SLOVENIA AND MODEL OF FERTILITY

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1. FERTILITY TRANSITION IN SLOVENIA AND CROATIA AND ITS IMPLICATIONS

The main demographic concern of the developed countries is fertility decline and population ageing. The pace and persistence of fertility transition from higher to lower fertility rates is a world wide phenomenon with no precedence in a human history. The developed world fertility rate has been continuously declining in the last decades. In Slovenia fertility rate has been declining for more than last 100 years and the situation in Croatia has been similar. From 1970 and 1995 the percent of all world countries with total fertility rate equal or greater than 4.5 fell from 60% to 40%. During the same time period, the percent of all world countries with total fertility rate lower than 2.5 increased from 17% to 33% (Bulatao and Casterline 2001). Therefore, fertility transition is the transition process from the state of high to the state of low fertility rate which is not high enough even to ensure the simple reproduction of a population. The start of a fertility transition is considered as a decade in which the decline in fertility rate compared to the fertility rate in the previous decade is lower for at least 10%.

Fertility is normally measured by the total fertility rate which is a long-run indicator of a population reproduction. Age specific fertility rates (f_x) measure the number of children that the average woman has born between her x^{th} and $(x+1)^{th}$ birthdays. We define age specific fertility rate as:

$$f_x = \frac{B_x}{P_x^f}$$

where B_x denotes births in year t pertained to women aged x at the time of birth and P_x^f denotes mid-year population of women aged x. The superscript f denotes that we are only

considering women. Total fertility rate (*TFR*) is than defined as a sum of the f_x over the women ages between 15 and 49 years:

$$TFR = \sum_{x=15}^{49} f_x$$

It measures the total number of children per a woman in her life under the condition that she survives until age 50 years, which is the end of the fertility period. If the value of total fertility rate per woman is less than 2.1, a woman has less than 2.1 children, meaning that she is less likely to provide at least one girl to replace herself or to assure a simple reproduction of a population. Total fertility rate is a long run indicator of fertility (Hinde 1998, 100).

In Figure 1 we can see recent and projected developments until 2050 in total fertility rate in Slovenia, Croatia, Europe and the World.
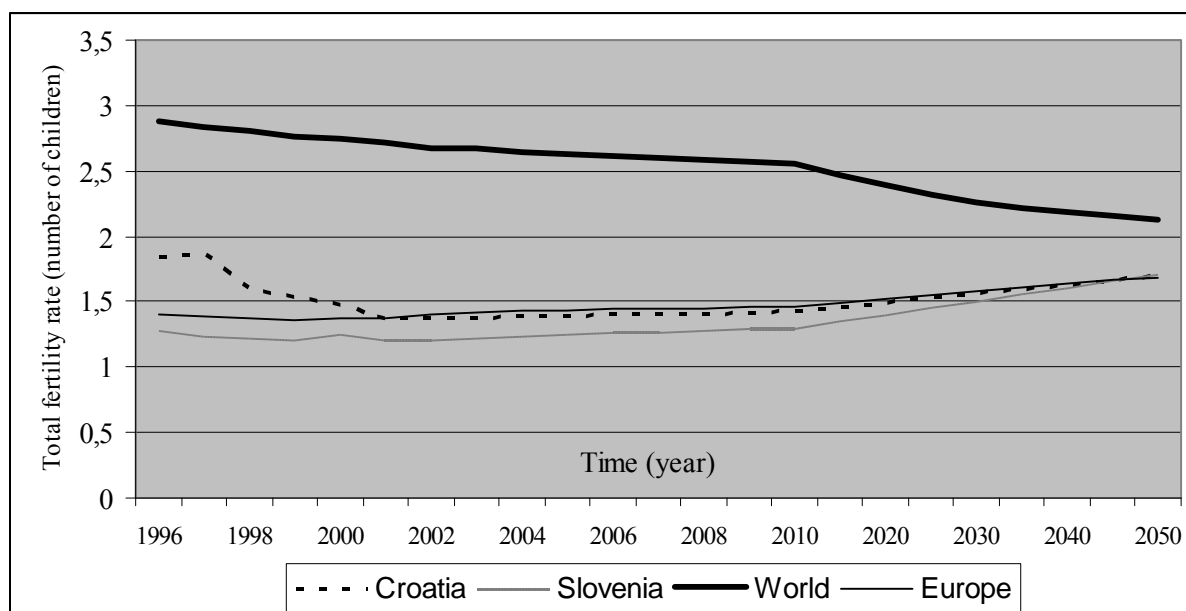
Figure 1. Total fertility rate in Croatia, Slovenia, Europe and the World, 1996-2050.

We can see that total fertility rate has been declining over the whole observed period. It is projected to recover in Slovenia, Croatia and Europe where the number of children per women has almost reached its minimum. But in the global world context the total fertility rate is projected to decrease until 2050 and even later on, due to the decreasing total fertility rate in developing countries, where the current fertility rate is on a higher level.

Another most commonly used measure of fertility is a crude birth rate, which is defined as the average number of life births per 1000 population in a chosen year and location. It is considered as a better measure than the absolute measure of life births, but is strongly influenced by the age and sex structures of the population in the denominator of the ratio (Hinde 1998, 95-96). Considering that t is a given calendar year, B_t is the total number of births in year t and P_t is the total mid-year population, we can calculate the crude birth rate (b_t) as:

$$b_t = \frac{B_t}{P_t} * 1000$$

From the comparison of Figures 1 and 2 it is confirmed that total fertility rate is a long run indicator of fertility. Even if the values of total fertility rates start to increase after a certain point in time point, the crude rates of fertility are still projected to decline even after that time until 2030 in Slovenia, Croatia, and Europe, but for the world as a whole at least until 2050.
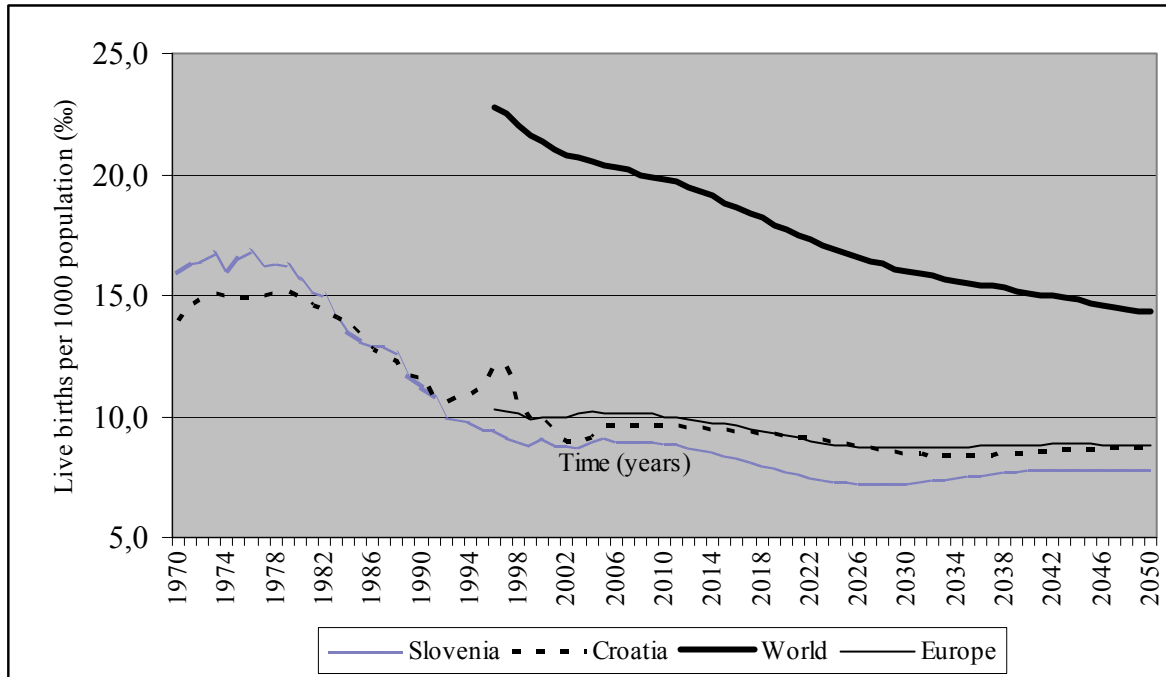
Figure 2. Crude birth rates in Slovenia, Croatia, Continent of Europe and the World, 1970-2050.

Fertility, mortality and migration are the three determinants of population age structure and its changes. Mortality is not increasing and so far remains stable in most of the developed countries. In less developed and developing countries mortality is even decreasing due to the improved overall life conditions contributing to the population ageing. On another hand, migrations in Slovenia have contributed slightly to the rejuvenation of the population since Slovenia has been net immigration country of especially younger workers during the last decades. In Croatia there are negative net migrations that are causing an outflow of younger working population contributing additionally to the population ageing. However the persistent and quite dramatic decline in the fertility rate in the last decades remains the most important factor of population ageing. As we can see in Figure 3, the share of people younger than 15 years in the whole population (represented by dotted lines) has been decreasing and the share of those aged 65 and more in the whole population (represented by solid lines) have been increasing in Slovenia, Croatia, Europe and the world. It is projected to continue similar patter until 2040. After 2040 the proportion of young population is projected to increase slightly, but the increasing proportion of old is projected to continue further on.
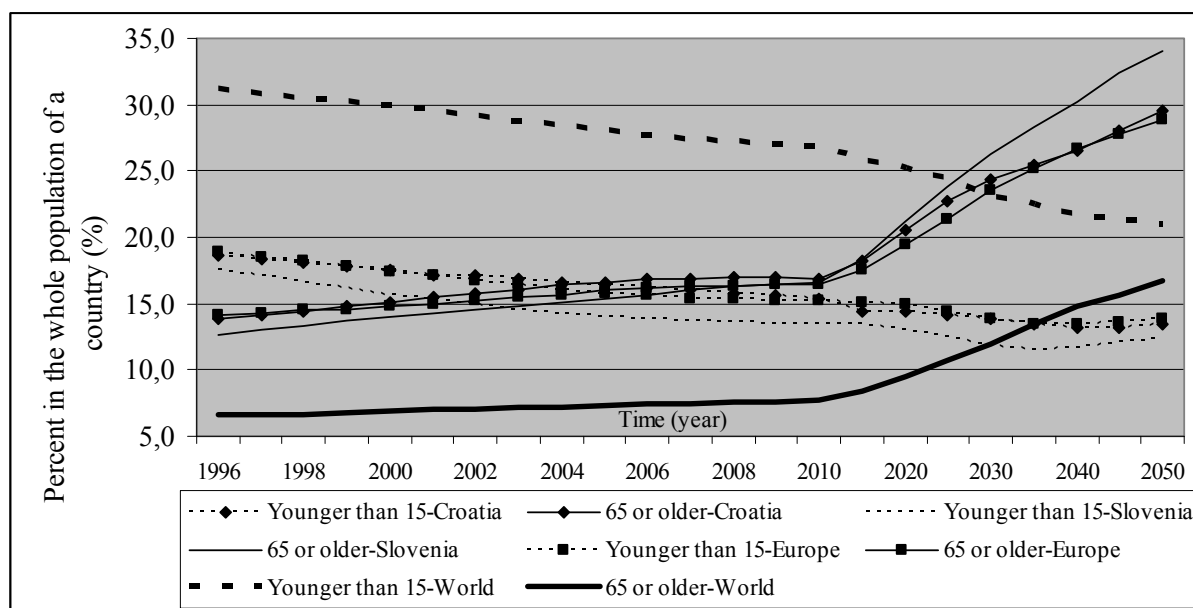
Figure 3. Share of population younger than 15, and aged 65 and more in Slovenia and Croatia 1974-2005.

The declining fertility and the consequent population ageing in Croatia, Slovenia and in the world are important research and policy issues, because the implications of the population ageing are resulting especially from the severe fertility decline. They are related to the economical, political, cultural and broader social environmental implications. Aggregate wage costs tend to be pushed up by labour force ageing in a case that current earnings differentials by age are maintained (Johnson and Zimmermann 1992, p. 5). Allocation of labour will be less optimal within a country since rates of regional migration are the highest among young adults, and decline with age increases until retirement (Champion et al. 1998, p. 65). Aggregate participation in labour market and average hours worked are expected to decline. The increasing share of older people is traditionally less active than younger and those of mature age (Productivity Commission 2005). Demand for education of children will decrease and demand for health service will increase. Pension system will need to be reformed due to the increasing dependency ratio. There is no doubt that the declining fertility rate with all its consequences is an increasingly important issue. Therefore, we try to find an answer to the question what are the factors of the fertility decline. We review first the most commonly used models of fertility.

2. FACTORS OF FERTILITY AND FERTILITY MODELS

In the last hundred years different determinants for the fertility decline have been argued in the literature. The findings vary depending to specific social, economic or historical circumstances. Fertility rates of different countries started to decline after the mortality declines. Social changes, which are caused by the structural changes in the economy towards industry and services and urbanisation, are associated with the decline in mortality and the increase in the survival of children. Fertility started to decline as a result of increased survival of children, since it was not necessary any more to give birth to more children in order to substitute the ones who did not survive until the adulthood (Davis 1963). Fertility started to

decline also as a result of the increased costs of rising of children in the new industrialised and urbanised world.

Later on further research revealed that the reasons for fertility decline can not only be a socio-economic development and the consequent decrease of mortality because the fertility started to decline also in countries with a very different level of a socio-economic development. In some countries cultural factors such as language and religion were more important for the fertility decline (Knodel and Van de Walle 1979). Furthermore, there are mentioned factors of fertility decline like changes in traditional values, which occurred with the increased personal material wealth and secularisation and where society became more individualistic (Lesthaeghe 1983). Caldwell (1976, 1981) emphasized that one of the reasons for the fertility decline is also "westernisation", which means the diffusion of ideas about the nuclear families where children are net receiver of emotional and material benefits. Microeconomic factors such as relative costs of children compared to other goods, income of a couple and couple's preferences for children compared to preferences for other ways of consumption are the next group of factors for the decline of the fertility rate that were added later on (Becker 1960 and Schultz 1973). Easterlin and Crimmins (1985) developed a model where fertility depends on the number of children, which would be born if there were no contraception, on the desired number of survived children, and on the costs of birth regulation. This model first brings the institutional dimension in to the investigation of the factors of fertility. Availability and spreading of information about contraception emerged as another important factor, which contributed to the fertility decline. However, if parents want to have many children, the availability of contraception will not stop them from having them (Cleland and Wilson 1987).

Most important factors of the declining fertility rate in a so called second demographic transition, which is especially typical for Europe, are postponing of marriages, postponing of having the first child, the increase of consensual units and fertility in such units, the increase of divorces and similar (Lesthaeghe and Van de Kaa 1986). The importance of psychological factors in modern times is becoming more and more important.

According to the earlier model of Oppenhein Mason (1997: 433-454), fertility depends on the perceived probability of child survival, on the perceived costs and benefits, which come with children, and on the relation between the perceived costs (sociological, psychological and financial) of regulating the number of children and costs of regulating the number of births.

The role of different factors is changing according to the social, cultural and economical development of a country. We can divide factors of fertility on direct and indirect factors by the way of their impact on the fertility (Malačič, 1985: 85). Among *direct factors,* there is a commonly used classification, which divides direct factors into three groups. The first group of factors consists of those which affect the probability of a sexual intercourse such as age at entering into sexual units, duration of fertility period, voluntary and involuntary sexual abstinence, and frequency of sexual intercourses. The second group of factors consists of those which are related to the probability to conceive such as fecundity/infecundity from involuntary and voluntary reasons, use of contraception and similar. The third group of factors includes factors affecting pregnancy and birth like death of an embryo from voluntary and involuntary reasons (Davis and Blake 1956). Among *indirect factors,* there are biological, economic, social, cultural, and psychological factors. Biological factors are less important in a modern society and refer to the fecundity as the biological ability of male and female population to conceive a child. On the contrary, the sterility may be not only a result of biological factors, but also a result of social factors like sexual diseases, nutrition, alcohol,

abortion, breast feeding and similar. Economic factors refer to economic benefits and costs of children. A special attention has recently been devoted to the opportunity costs of bearing and rising children. If women have higher education or are more likely to have a job then the forgone earnings during pregnancy and later on, in the earliest ages of a child, are much higher, compared to the situation where women have lower education and are less likely to get a job in general. In such cases their expected potential earnings are lower and thus are lower opportunity costs of giving them up. Social factors include industrialisation, urbanisation, modernisation, socio-economic position of a family, employment and activity of women, education level of parents, social norms, values and standpoints, transformation of a family and intergenerational flows of wealth from young to old or the opposite. Cultural factors normally include religion, ethnic and racial characteristics. Finally psychological factors seem to be gaining importance in modern societies. These factors are demonstrated at the three levels: firstly, at a personal level through personal characteristics of an individual. Secondly, in relationships in small groups, especially in families and finally, at the socio-psychological level, which is defined with economic, social and political development (Bulatao and Casterline 2001).

3. RESEARCH QUESTION, DATA AND METHODOLOGY

After reviewing the theories and models of fertility, we want to find out which model is the best to explain fertility decline in Slovenia and in Croatia. Among possible explanatory variables are social, cultural, psychological and economic variables. Some economic factors, which caused the fertility declines, could be later also the consequence of the fertility decline, and thus forming a vicious circle. For example, worse macroeconomic conditions including increasing general level of unemployment may lower fertility, because of worse economic conditions for families. The fertility decline changes population age structures toward population ageing, which has implications for the economy. These implications may contribute to the lower mobility of labour, to the lower efficiency of labour, to lower aggregate activity, and to the further worsening of the macroeconomic situation.

We aim to develop our own model of fertility. We assume that factors, which influence fertility decline in Slovenia and Croatia are similar in terms of their circumstances and developments regarding fertility, mortality of children, economic contribution of children, actual and opportunity costs of raising, bearing and educating of children, transformation of families and values, and disappearances of traditional incentives for childbearing, which is reflected in postponing of marriages and pregnancy, and which is facilitated by greater access to contraception. To empirically investigate determinants of fertility, we have collected statistical data to test fertility model on the data for Slovenia. From the Statistical Office of the Republic of Slovenia (SORS), we have collected time series data for the period 1975-2005.

Fertility can be measured by different indicators like total fertility rate, crude birth rate, age specific fertility rates or by the absolute number of life births as described at the beginning of the paper. The weakness of the absolute measure of the number of life births is its dependency on the size of the population. On the other hand, total fertility rate reflects the fertility determinants only in a long run. We decided for the *crude rate of fertility* (*CFR*) as a proxy measure of fertility in our model.

To measure the first factor we collected data on *infant mortality rate (IMR)*, which is defined as the number of babies who die after the birth aged from 0 to 1 year per 1000 life births in a chosen year and in a chosen territory. We expect the correlation coefficient between the infant mortality rate (*IMR*) and the crude rate of fertility (*CRF*) to be positive.

To measure the economic contribution of children, we have collected data on agricultural area (*AA*) assuming that smaller agricultural area implies smaller proportion of rural population. Economic contribution of children is very important when helping on their families' farms. During the last three decades the proportion of rural population has been decreasing. Consequently the economic value of children for their families in this context has been lowering. We expect that the correlation between rural population proxied by the agricultural area (*AA*) and the crude rate of fertility (*CRF*) is positive.

To measure the costs of raising and educating children, we have collected data on the average starting price of the useful square meter of a habitable area, data on the average monthly salary. In order to eliminate the problem of inflation and different currencies (dinar and tolar) before and after the declaration of the Slovenian independency, we calculated a ratio between the average monthly salary and the average starting price of the useful square meter of a habitable area: the ratio is higher if costs for the habitable area are lower or if the average monthly salary is higher (*RW*). This ratio measures the number of square meters of habitable area, which can be bought by the average monthly salary. We believe that a basic economic precondition for childbearing from the couples' point of view is that they have a place to live. Beside costs related specifically to education of children, providing a child with a suitable accommodation is one of the most important costs of rising children. The correlation between the ratio of average monthly salary to the price of the habitable area (*RW*) and the crude rate of fertility (*CRF*) is expected to be positive.

Opportunity costs of childbearing and rising of children for women are proxied by the percent of unemployed woman in the total number of unemployed *(PUW)*. The lower the percentage and the number of unemployed women among all unemployed people in a given year, the more women are employed and consequently opportunity costs of childbearing and later on rising children for women are higher. We may expect that higher opportunity costs will result in a lower fertility. The lower the number of women who work (the higher the percent of unemployed women among all unemployed) the lower will be opportunity costs of childbearing. Consequently fertility may rise. Therefore, we expect positive correlation between the percent of unemployed women (*PUW*) and the crude rate of fertility (*CRF*). However, the unemployment status of women is also less likely to encourage their willingness to have children due to social problems. Therefore, it is important to understand that here we consider this part of lowering unemployment, which is determined by higher educational level of women and changes in values and not that part of unemployment, which is a result of better macroeconomic conditions, which affect both women and men. It is clear that in the case of greater overall unemployment for men and women, which is a result of worsening macroeconomic and thus also social situation, fertility will tend to decline.

Next group of factors is related to the transformation of families, disappearance of traditional incentives for childbearing and transformation of values. As a result of these changes in values of women and couples, the marriage and childbearing are postponed to the later time when women and couples are older. This delaying is mostly facilitated not by the sexual abstinence, but by the greater use of contraception, which is now much more accessible than in the past. The important causes for all these changes are changes in values, which we

measure by the proxy variable the number of divorces per 1000 marriages *(DPM)* in a chosen year. The higher the number of divorces, the greater is the transformation of families and values. There will consequently be more one parent families and personal values perceived much less traditional and conservative. We expect a negative correlation between the number of divorces per 1000 population (*DPM*) and the crude rate of fertility (*CRF*).

Using multiple regression function we have tested the model on the data collected. As a dependent variable, the total fertility as measure of level of fertility is used. This is a long run measure of fertility expressed in the average number of children born per one woman at the present level of mortality and under the assumption that all women will survive at least until the end of the reproduction period (until the end of 49th year of life). The other variables described above are taken into the regression model as explanatory variables trying to explain the variance of the fertility by the variance of the explanatory variables. The general form of a multiple linear model is:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_p x_p + \varepsilon$$

Our individual estimates of a dependant variable, i.e., the crude rate of fertility (*CRF'*) are different from the actual values of the dependant variable (*CRF*), but are on average the same as the actual values (*E(CRF')=CRF*). Therefore, a random variable or error terms (ε) is distributed normally with a mean value of zero and a standard deviation, which is equal for all values of x_i, and hence we may rewrite the model as:

$$E(y) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_p x_p$$

We are working with a sample data, and thus the final form of a model is:

$$\hat{y} = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 + \ldots + b_k x_k \, ,$$

whereas in our specific case, this is:

$$CRF = b_0 + b_1 IMR + b_2 AA + b_3 RW + b_4 PUW + b_5 DPM$$

This fertility model is empirically tested in the regression framework employing ordinary least square (OLS) method.

4. THE FERTILITY MODEL

The fertility model, which we have developed, tries to explain the variations of fertility, which is measured by the crude rate of fertility, by the variations of the five independent explanatory variables. These explanatory variables are: the infant mortality rate (*IMR*), agricultural area (*AA*), the ratio of average monthly salary in real terms (*RW*), the percent of unemployed woman in the total number of unemployed (*PUW*), and the number of divorces per 1000 marriages (*DPM*). The each explanatory variables stand for the corresponding fertility factor: mortality of children, economic contribution of children, costs of raising and educating children, opportunity costs of bearing and rising children, and transformation of families. These explanatory variables together explain around 98% of variations in fertility (adjusted $R^2=0.98$).

The signs of the regression coefficients are in accordance with our theoretical expectations. The regression coefficient b_1 is positive, meaning that the decreasing values of infant mortality by years correlates with the decreasing values of fertility. The regression coefficient b_2 is positive as well, meaning that the decreasing significance of agricultural values by years correlates with the decreasing fertility. The regression coefficient b_3 is also positive, meaning that the real monthly wages expressed in the number of m^2 of habitable area one can buy with the average monthly salary positively correlates with fertility. The coefficient b_4 is positive too, meaning that the decreasing percent of unemployed women in the whole number of unemployed by years correlates with the decreasing fertility. Finally, the regression coefficient b_5 is negative, meaning that the increasing percent of divorces per 1000 marriages by years reduces the fertility. All the partial regression coefficients, except the regression constant and the regression coefficient b_3, are statistically significant. The level of significance for the regression constant and for the b_3 is at around 5% for the two-tailed t-test. The one-tailed t-test is more appropriate, and thus we divide these two significance levels by two to obtain the sufficiently low risk levels when rejecting the null hypothesis that a chosen variable has no influence on the crude rate of fertility. Namely, we expect the regression coefficients b_0 and b_3 to be not only different from zero, but also to be positive. This is why one-tailed t-test is justified.

F-test shows that the fertility model as a whole is a good explanation of the fertility variations. Table 1 presents the estimated fertility regression. The form of the regression function describing the relation between the fertility and the five fertility determinants, which is the result of the regression analysis, is the following:

$$CRF = 2.87 + 0.29*IMR + 2.83E\text{-}06*AA + 3.37*RW + 0.095*PUW + -0.0095*DPM$$

Table 1. Summary of the regression analysis results.

Variable	Coefficients	T stat	Two-tailed p-value	One-tailed p-value
Regr.constant	2.865	2.003	0.0577	0.0288
IMR	0.292	5.001	0.0000	0.0000
AA	0.000	3.166	0.0045	0.0022
RW	3.374	2.024	0.0552	0.0276
DPM	-0.010	-2.931	0.0077	0.0039
PUW	0.095	2.548	0.0183	0.0092
F= 256,66		Adjusted R Square=0.98		Observations=28

Source: Own calculations.

5. CONCLUSIONS

Similar to many other developed countries, the rate of fertility in Croatia and Slovenia has been persistently declining during the last decades. It is also projected to decline further for the next 20 years. As a result the populations of Croatia and Slovenia are becoming older and older, which has many negative implications for labour market and the economy as a whole. Looking closer at fertility determinants, we found out that there are many different theories trying to explain variations in fertility. We succeeded to explain variations in fertility in Slovenia during the last decades by the following explanatory variables: mortality of children, economic contribution of children, costs of raising and educating of children,

opportunity costs of bearing and rising of children, and transformation of families and values. We assume that factors influencing fertility decline in Slovenia are in some ways similar to those in Croatia in terms of their circumstances and developments.

The mortality of babies has been decreasing and is very low now. The direct economic value of children for their families is decreasing and hence the need for them is lower. The real costs of having a family are not decreasing. The prices of housing and many other family related expenses are even increasing. On another hand, women are more educated and more active in the labour market. These changes imply the increase of opportunity costs of childbearing and rising of children, measured in the forgone earnings and careers. Finally, the increasingly important reason why couples choose to have fewer children is the change of personal values and the transformation of families. The society is more consumption orientated understanding a child more as consumption alternative. When deciding between having a new car and having another baby they decide more according to the short run criteria. This is true especially if they do not have any deeper personal convictions about the value of a child. Since these convictions are in decline, marriage and pregnancy is postponed.

The analysis of the fertility reveals that single, more educated women, women with more demanding jobs, women who live in bigger towns and women who are not religious still have fewer children than married women, lower educated women, women with less demanding jobs, women living outside large towns and women who are religious. Most of the factors included in our fertility model are expected to keep on developing in the same direction. We may conclude that fertility decline is a consequence of a rational process, which is based on the conclusion of each individual that in a short run it makes sense to decide for fewer children for economic, social and psychological benefits they may have in a short run. Where are the limits and what will bee the final consequences of such a process, and what do we need to do as a society in order to become more long run orientated, remains an open question.

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ETHICAL ISSUES OF COMPENSATION MANAGEMENT IN CROATIAN ENTERPRISES

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Abstract

This paper deals with several ethical considerations in the area of compensation management in Croatian enterprises. It is based on a survey performed in Croatia in the first three months of 2005. The survey sample includes 350 Croatian enterprises whose top managers were distributed questionnaires. Questionnaire return rate was 18% and included different branches of the economy. Extensive research has showed the following: variable compensation in Croatian enterprises is in most cases based on objective performance indicators. Gender pay gap in Croatia is not as widespread as it is in developed western economies. In Croatia it amounts to 10,5% compared to the EU25 where it is estimated to be 15%. Comparisons of the amounts of executive pay to the average employee pay can not be categorized as unethical, as the ratio is from 1:7 to 1:10 which is acceptable to the theoretical standards.

1.   INTRODUCTION

Considering that people differ in incomes, wages and terms of employment one can say that wage discrimination is undisputable and that there is no ethics in compensation. On the other hand, can all wage differences be regarded as wage discrimination? As far as in 1975 a number of European Directives[1] were introduced to support the principle of equal pay to work of equal value, guarantee the equal treatment in the workplace (i.e. access to employment, vocational training, promotion and working conditions) and provide for equal treatment of women and men with respect to both statutory social security and occupational social security (Rice, 1999). These and later introduced Directives[2] apply to the EU countries whereas in

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[1] Council Directive 75/117/EEC of 10 Feb 1975 on the application of the principle of equal pay for men and women, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31975L0117:EN:HTML
[2] http://ec.europa.eu/employment_social/gender_equality/legislation/legalacts_en.html#directives

Croatia this area has been regulated through Employment Law.[3] The principles applied in Croatia seem derived from the principles applied in the EU. But the real question is whether these principles work in practice and disable the phenomenon of wage discrimination.

When discussing about ethical issues in compensation the main question is: what is actually unethical behavior in compensation? Is it unethical to pay different amounts to employees that perform the same task? Or is it unethical to pay employees the same amounts if they perform same tasks but one of them with much more effort and better performance than the other? Fairness and justice in compensation is an often used, but fairly vague concept than needs to be defined first. Here we must understand the meaning of the term economic or wage discrimination. Economic discrimination is defined as when otherwise identical workers receive different pay doing the same job or are given different chances of employment or promotion. It is the presence of different pay for workers of the same ability but who are in different groups (Grybaite, 2006). Economic discrimination should be avoided whenever possible due to its poor influence on employee motivation and performance.

Business ethics is frequently discerned at three different levels. A macro level that focuses on the political system, a meso level that concentrates on the organization as such, and a micro level that elaborates on individuals inside organizations (Steinmann and Löhr, 1996). For the purpose of this paper we will consider unethical behavior in compensation as the lack of internal equity in compensation - where internally equitable compensation pays people in proportion to the relative value of their job (Berger & Berger, 1999:41). Furthermore, we will consider unethical behavior in compensation when jobs of the same relative value bring different salaries, based on other reasons than the employee performance. Besides the amount of base salary some other issues in compensation very often get criticized as examples of unethical behavior. One of these is executive compensation. Ethical aspects in executive compensation that we consider in this paper are the basis for calculating executive compensation and the comparison of the amounts of executive pay to the average employee pay. Another regular discussion in compensation includes gender pay differences. As a part of this paper we will explore the situation in Croatia both regarding executive compensation and gender pay gaps.

In most general terms, compensation is a reward for employees' effort. It should motivate employees to take higher effort and tighten up both the interests and objectives of employees and enterprises. Unfortunately, with the higher element of discretion in a compensation system, the possibilities and risk of unethical behavior increase. There are numerous examples of equal work that is differently rewarded in spite of strong efforts for eliminating economic discrimination. A great deal of such discrimination is a result of the characteristics of a compensation system in the enterprise. The main interest of this paper consists of exploration of described ethical issues in compensation management of Croatian enterprises. This area will be explored and tested through the following hypotheses:

H1: Variable compensation in Croatian enterprises is in most cases based on objective performance indicators e.g. performance appraisal and piecework pay.

H2: In Croatian enterprises the problem of gender pay gap is not as widespread as in developed western economies.

H3: In Croatian enterprises it is possible to recognize unethical behavior when comparing amounts of executive pay to the average employee pay.

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[3] Zakon o radu, NN 137/2004, www.nn.hr

2. METHODOLOGY OF RESEARCH

The study that is the basis for this paper was conducted during the first three months of 2005 in Croatia. The sample covered 350 Croatian enterprises in all branches of the economy. The sample covers manufacturing, service and trading companies. It was attempted to cover small, medium and large companies proportionally. The study questionnaire consisted of basic information about the firm and 66 questions in the areas of competitive structure, strategy, organizational structure, technology, compensation management and environmental management.

The questionnaire was distributed to top managers, which is logical in view of the nature of the study. Within 70 days, 63 questionnaires were received (questionnaire return rate: 18%), which is satisfactory for the purpose of our study. We stress that all the key major Croatian companies returned their questionnaires. It is interesting to note that the companies which returned questionnaires employed 52667 people in 2004, gained total revenue of 2.984.036.147 US$ and made total profits of 215.894.912 US$. Questionnaires were received from 49 manufacturing and 14 non-manufacturing companies. We consider the study sample representative considering that the companies questioned employ more than 4,1% of all employees in Croatia and that the ratio between the revenues of manufacturing and non-manufacturing companies in the sample is nearly equal to that in the Croatian economy (42,5% non manufacturing: 57,5% manufacturing).

For the purposes of this study we identified three groups of companies according to number of employees. The first group, which was labeled "small companies", consists of companies which have between 15 and 100 employees; the second group, companies with between 100 and 500 employees, was labeled "medium companies"; and the third group, companies with more than 500 employees, was labeled "large companies". The division is of a conditional character and although there was no weighting by total revenue or type of activity, it seems to clearly show the present situation in the Croatian economy.

Table 1: Independent characteristics of examined enterprises

Independent characteristic of enterprise	Distribution in the sample		
Size of enterprise	**Small**	**Medium**	**Large**
	26,4%	37,7%	37,7%
Ownership majority	**State ownership**	**Private ownership**	**Foreign ownership**
	18,03%	59,02%	22,95%
Industry	**Manufacturing**	**Non manufacturing**	
	57,5%	42,5%	

Besides the data from our research we use on-line data provided by Croatian Bureau of Statistics, Eurostat, World Bank and USAID.

3.   THE BASIS FOR VARIABLE COMPENSATION

In today's competitive world only a few disagree that individuals who contribute more to achieving organizational goals should receive greater rewards. The change in the wage setting mechanism, from administrative to market-based has led to a sharp increase in wage dispersion. More productive and expanding firms in general tend to pay higher wages, especially to workers whose skills are in high demand. The process by which monetary rates are attached to each job is job pricing. The process should be taken carefully to establish consistency and equity throughout the pay structure. Two basic issues must be determined: (1) how to measure the worth of jobs and thus assign them in a place in the hierarchy and (2) what is an appropriate pay gap between different levels in the hierarchy.

Salary surveys such as salary survey performed by Hay group consistently demonstrate considerable variability in wages for the same job in the same national labor market.[4] Salaries can vary by as much as 100% meaning that there are people in the marketplace that are performing the same or similar jobs but who earn as twice as much as other people (Turnasella, 1999). However, due to the fact that enterprises differ in their internal structure and organization and thus in human resources effectiveness, oscillations in pay for the same occupation in different enterprises can not be regarded as economic discrimination. A different issue is internal pay inequality that exists within companies.

Principle of equity in compensation is divided into internal and external equity. External equity focuses on external labor market and aims at paying everyone in organization around the market rate for similar jobs. An organization has four choices relative to its compensation levels: (1) pay what the market is paying, follow, (2) pay in excess of what the market is paying, lead, (3) pay less than the market is paying, lag or (4) some combination to follow, lead and lag (Caruth & Handlogten, 2001). External equity is not something that would be a strong source for the perception of lack of ethics in compensation as internal one (Thorpe & Homan, 2000:25). Thorpe and Homan explain that employees will understand that one employer is able to pay higher wages than another, and in such cases it is possible that employees will seek employment in higher-paying organizations. However, when pay is associated with the perception of unfair distribution within the enterprise it will result in low confidence in the compensation system. In practice it is much harder to achieve internal equity than external one. Negative consequences of inequality are absence, low effort, hostility and dissatisfaction with the organization. We consider that internal inequity is an effect of unethical behavior in compensation.

Internal equity implies that jobs requiring greater amounts of skill, effort and responsibility are compensated at higher rates of pay than jobs requiring lesser amounts. In other words, internal equity is just fairness in rewarding jobs based on the degree of difficulty entailed in performing these jobs. Internal equity recognizes as fairly as possible the differences inherent in jobs and pays them accordingly. Likewise, an enterprise needs to implement a formal compensation program that will recognize the difference among jobs and reflect these differences in pay. There is also the matter of perceived equity – fairness of the compensation system as seen through eyes of employees. In the very core of internal equity is variable compensation.

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[4] Hay Group is a global management consultancy, especially active in the area of compensation management. It has offices in 47 countries. Office in charge for Croatia is located in Budapest. www.haygroup.com

Variable pay rewards employees according to partial or complete attainment of predetermined work objectives. It is defined as a compensation that fluctuates according to employee's achievement of some standard based on a preestablished formula, individual or group goals or company earnings (Martocchio, 2006:136). Lawler (2000) distinguishes among two types of variable compensation: incentive pay (or piecework pay) and merit pay. *Incentive pay* involves paying employees directly for the amount of work they produce. This approach is associated with factory work that can be measured. This system is difficult to design, maintain and mange and it carries a strong bureaucratic weight. *Merit pay* can be applied for most employees in an organization. Pay is a result of the subjective performance rating by direct superior or a formal process of performance appraisal. Evidence exist that merit pay is a poor motivator for performance if the performance measures are somewhat unclear and the rewards for performance are relatively small (Lawler, 2000). However a strong advantage of merit pay is the relative simplicity in its application when compared to other compensation systems.

Variable compensation is based on pay for performance principle. Therefore a mechanism must be used to measure and rate performance for all employees whose pay will depend upon performance. In most cases the mechanism used to measure and rate performance is performance appraisal. Performance appraisal is the formal process, normally conducted by means of completing an instrument that identifies and documents a jobholder's contribution and workplace behavior (Henderson, 2006:325). It is already clear that the discussion about ethical issues in compensation depends greatly on fair judgment of performance. Some of the obstacles associated with performance appraisal are: (1) it is subjective, (2) a single rating is a superficial and arbitrary judgment, (3) the performance review is dominated by the necessity to perform a rating and to development, (4) it is extremely difficult to rate qualitative aspects of performance (Armstrong & Stephens, 2005).

What most organizations wish to emphasize through variable pay is that an employee will receive a pay increase only if it is deserved by work. The process of performance appraisal here has the most important role as it must indicate which employees have showed a high effort to the accomplishment of the enterprise's goals. Martocchio (2006) lists four points of interest to assure nondiscriminatory performance appraisal: (1) conduct job analyses to ascertain characteristics necessary for successful job performance, (2) job characteristics must be included in the rating instrument, (3) supervisors must be trained to use the rating instrument properly, (4) review of ratings by upper level personnel helps to make performance appraisal process more accurate and effective.

Pay for performance scheme can result in a substantial difference in pay for the people performing the same job within the company. When companies' merit increases do not clearly reflect differences in actual job performances top performers may become frustrated and reduce their level of performance. In some cases this problem can be solved through alternative rewards such as benefits but it will surely bring disappointment to employees. However, there are some different views to the problem of variable compensation. Turnascella (1999) argues that internal pay inequality can be traced back to the hiring process and the salary negotiations between the organization and the employee.

4.   PAY GAPS

Surely much of the pay differential can be associated to factors such as occupational choice, union membership and different industry characteristics that can not be categorized as economic discrimination. In spite of the legislative effort and social awareness some of the most emphasized discriminatory pay gaps are the gender gap and the gap resulting from the comparison of the amounts of executive compensation to blue collar employee pay. Practice also recognizes age pay gaps, minorities pay gaps, pay gaps for people with disabilities, pregnancy discrimination etc.

The gap between male and female earnings, or gender pay gap, is given special attention. In industries in which female dominate the workforce, meaning that in excess of 70% of all employees are female, wage rates are usually lower than in those cases in which males are the dominant workers (Henderson, 2006:32). It is encouraging that starting from 1980s this gap is decreasing. For example, it decreased in the USA from traditionally some 60% to 79,7% in 2003.[5]

It is common sense that unskilled workers get less paid than skilled workers. Technological progress and structural shifts, such as that from the manufacturing sector to the services sector, raised relative demand for, and thus wages, of white-collar skilled workers. At the same time, the process implied deterioration in the relative wages of less-skilled, blue-collar workers employed in declining manufacturing industries. The changes in the structure of the economy, and thus changes in relative demand for different types of labor, have given rise to various wage premiums to worker and firm characteristics (such as education, skills, occupation, industry, and location) and contributed to the increase in wage inequality. For example, a university-educated worker in Poland currently earns (on average) 70 percent more than a worker with basic vocational training does. Under central planning, the differential was merely 20 percent (World Bank, 2005).

However, the question is what should be the ratio of pay for two employees? A typical example for this issue is the pay of top executives. The ethics of remuneration especially has been a matter of keen interest in recent years as a result of the controversy over executive pay. Concern has been expressed over the expanding differentials which executives enjoy over other employees and attention has been directed both towards executive pay systems and the decision-making processes through which such systems are chosen. Enterprises use variable compensation to align interests of shareholders and management. Executive pay increased between two and three times from the early 1990s until today (McCall, 2005). Still, the gap among CEO pay and employee pay continues to grow, despite criticisms from the public, shareholders and the media (Pratt, 1996). There are five elements of executive compensation: salary, benefits, short term incentives (mostly cash or stock), long term incentives (mostly stock options) and perquisites (Ellig, 2003). The biggest contributing factor to the growth of the pay gap is the use of stock options in executive compensation packages, or the variable pay component of the compensation package. Stock based rewards are mostly designed to hold on to top managers and to encourage them to strive for long term results, but CEO compensation dips even though corporate profits decline. In fact, many would agree that the way to narrow the pay gap is not necessarily through cutting pay at the top but by extending incentive opportunities down through the organization. There is the possibility also to link

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[5] Employment and Earnings, Bureau of Labor Statistics, January 2004 according to Henderson, 2006, pp.33

long term compensation with the market measures of firm performance (Singh & Agarwal, 2003).

Recently, the public has started to question the wisdom of excessive amounts of CEO pay and even argument that stock option plans have a causal role in financial and accounting scandals that have hit US megacorporations as options have value only when stock price rises (McCall 2005:244). The main issue explored has been whether executives are overpaid or their compensation reflects rewards for their leadership and performance. We argue that from the pure moral perspective it is not ethical to pay CEOs amounts that exceed average employee pay for a few tens times. McCall (2005) suggests two moral criteria for the assessment of CEO pay: net social welfare and fairness/justice. On the criterion of net welfare the consequences of high executive compensation are negative. It affects employee morale, social cohesion and even causes shareholder dilution. Moreover, the size and the nature of compensation package create pervasive incentives to focus on short term profit maximization. On the grounds of justice and fairness executive compensation omits the relative level of contribution and risk taken by the employees. Is really the contribution of an employee 20, 50 or 100 times minor than executive's?

Additional ethical consideration that we did not explore in detail this paper, but that surely exists is the problem of determining compensation practices for top executives. The problem is *who* produces these compensation practices. Executive compensation is often set either directly by BoD or by use of consultants. Again, the consultants are often recommended by the company's management team, and management team needs to approve the amount recommended (McCall 2005:249). Therefore, all refers that executives have a strong influence on determining their own pay levels.

5.   DATA ANALYSIS AND DISCUSSION

Ethical issues in compensation management in Croatian enterprises will be considered through several empirical tests. An important cornerstone for compensation is formulated compensation strategy in an enterprise. Enterprises can have a formulated compensation strategy or completely ignore its importance and thus pay their employees without any formal basis. If an enterprise does not have formal compensation strategy it is difficult to discuss about ethic in compensation as there are no set rules and procedures to follow in compensation. It means that it will be possible to recognize the existence of unethical behavior, but it will not be possible to find arguments to support the thesis that the system is unethical as there are no rules that define how should an adequate compensation system look like. Table 2 presents the empirical results gained from the exploration of compensation strategy in Croatian enterprises. It can be seen that more than 85% of Croatian enterprises have directly or indirectly (through HRM strategy) defined compensation strategy. Thus it can be expected that unethical compensation is hardly to be an aim for any of these enterprises that they would want to achieve with compensation system. Actually, we believe that our paper can help to test the final outcome and results obtained by implementing different formally existing compensation strategies. We believe that non-existence of a compensation strategy could be a strong justification for occurring ethically dubious compensation issues. As could have been expected with the increase of the size of enterprise the percentage of enterprises that have a formulated compensation strategy also increases (31% of small, 32% of medium, 59% of large enterprises). Informal compensation system is rarely perceived as

fair. It is usually seen as biased and arbitrary because employees may feel that there is no logic attached to it. A formal compensation program, relying on job analyses, systems and logic is more readily perceived by employees as fair and equitable. Formalization of compensation programs increases the likehood of perceived equity on the part of the employees.

Table 2: The existence of the compensation strategy in enterprise

Does the company have a formulated compensation strategy?	All enterprises	Small enterprises	Medium enterprises	Large enterprises
YES, and it represents an essential part of the HRM strategy, and as such of the strategic plans of the company	41,27%	31,25%	32,00%	59,09%
It is partially included in the HRM strategy, but not in detail	44,44%	50,00%	52,00%	31,82%
NO	14,29%	18,75%	16,00%	9,09%
Total	100,00%	100,00%	100,00%	100,00%

In traditional pay plans employees received compensation based on fixed hourly pay rate or monthly (annual) salary. These employees earned raises according to their length of service in the organization or according to supervisors' subjective appraisals of employee's job performance. Today enterprises use incentive pay based on employee performance to reward individual employees (Martocchio, 2006: 137-138). Here we have two possibilities: set measurable merit performance standards that apply to each individual or the second possibility is to use incentive compensation system that uses more objective criteria such as different indicators to determine variable compensation. Under traditional pay plans there were limited possibilities for unethical behaviors. Therefore in further exploration of compensation system in Croatian enterprises we determined whether enterprises still use traditional compensation systems, or they use variable compensation. The results are shown in table 3.

Table 3: The base for determining individual variable compensation

	All enterprises	Small enterprises	Medium enterprises	Large enterprises
No variable compensation (salary)	3,61%	5,26%	3,03%	3,33%
Supervisors' subjective rating	33,73%	31,58%	42,42%	23,33%
Incentive pay or piecework pay standards	21,69%	21,05%	18,18%	26,67%
Performance appraisal	34,94%	26,32%	30,30%	46,67%
Else	6,02%	15,79%	6,06%	0,00%
Total	100,00%	100,00%	100,00%	100,00%

Table 3 shows that Croatian enterprises mostly use variable compensation. Traditional compensation in its basic form that has no variable part is used in only 3,6 % of Croatian enterprises. This conclusion is reasonable as such kind of compensation system has no extra motivation potential except for the amount of base pay. A modification of pure annual salary is when supervisors independently distribute pay increases. Subjective rating by the supervisor is used in 33,7% of Croatian enterprises. Fortunately, this does not open much room for derogation of internal equity in compensation as the amounts that managers can distribute are usually in the range of 2-6% (Martocchio, 2006). As expected, this method is

least used in large enterprises (23,3%), although we find the percentage of large enterprises that use this method quite high taking in account subjective character of this method. Even higher percentage of medium sized enterprises use subjective manager's rating (42,4%). Truly variable compensation is the compensation that is based on achieving incentive standards or compensation based on performance appraisal. In comparing these two, performance appraisal is a technique that can be categorized as more subjective in nature as there are no articulated objective standards that need to be achieved. As much as almost 35% of Croatian enterprises use performance appraisal. The rate of use for performance appraisal increases as the enterprise size increases (it is used by 26,3% of small enterprises, 30,3% of medium sized enterprises and 46,7% of large sized enterprises). Performance appraisal, if not used properly, can be a strong source of unethical incentives in compensation. Therefore the next examination that we preformed involved the attitude of survey respondents to the performance appraisal. The respondents were asked to rate whether they believed that performance appraisal was suitable method for determining the variable part of the salary.

Although measures used by performance appraisals are not always quantifiable table 4 shows that Croatian enterprises consider performance appraisal to be a good method for determining variable part of the salary - if applied properly (68,8%). Other respondents believe that it is better than the other methods such as supervisors' subjective rating (20,3%). Only 7,9% of Croatian enterprises consider that it is not good method for determining variable part of the salary because it does not assure objective determining of performance. When we include the size of enterprise in the analysis an interesting observation can be made. Table 4 shows that small enterprises have the best attitude towards performance appraisal as 75% of small enterprises consider it to be a good method for determining variable part of the salary (compared to 72% of medium enterprises and only 56,5% of large enterprises). Here it may seem that performance appraisal is somewhat similar to the subjective rating by the manager. Although both of there measure are based on evaluation performed by the superior, performance appraisal is a much formal procedure that is based on model prepared separately for each job. Subjective rating by the manager allows for a higher degree of flexibility in rating.

Table 4: The attitude of survey respondents to performance appraisal

	All enterprises	Small enterprises	Medium enterprises	Large enterprises
It is a good method for determining variable part of the salary if applied properly	68,75%	75,00%	72,00%	56,52%
It is not good method for determining variable part of the salary because it does not assure objective performance determining	7,81%	12,50%	4,00%	8,70%
It is better method for determining variable part of the salary than supervisors' subjective rating	20,31%	12,50%	20,00%	30,43%
Other	3,13%	0,00%	4,00%	4,35%
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Tables 3 and 4 show that enterprises which apply variable compensation lay it on the basis of pay for performance scheme. Awarding pay increases on factors other than job performance could lead to discrimination of some employee groups. One such violation could include gender pay gaps or the situation where employee sex influences its compensation more than performance. Wage inequality is presently high in all transition countries including Croatia.

Table 5: Average monthly net earnings of persons in legal entities by industry, 2004 average

Legal entity	Total	Women	Men	Women's salaries as percentage of men's
	In kuna			
Manufacturing	3678	3124	4006	**78,0**
Financial intermediation	6039	5615	7049	**79,7**
Health and social work	4762	4494	5600	**80,3**
Education	4423	4208	5043	**83,4**
Wholesale and retail trade	3541	3216	3848	**83,6**
Public administration and defense; compulsory social security	4817	4303	5136	**83,8**
Hotels and restaurants	3556	3300	3860	**85,5**
Fishing	2850	2556	2908	**87,9**
Real estate, renting and business activities	4293	3982	4499	**88,5**
Other community, social and personal service activities	4297	4014	4521	**88,8**
Agriculture, hunting and forestry	3590	3291	3685	**89,3**
Electricity, gas and water supply	4637	4387	4698	**93,4**
Transport, storage and communication	4676	4479	4753	**94,2**
Mining and quarrying	4563	4395	4598	**95,6**
Construction	3491	3554	3482	**102,1**
Total	**4143**	**3885**	**4341**	**89,5**

Source: Report: *Women and Men in Croatia 2006*, issued by Croatian Bureau of Statistics, www.dzs.hr

The gender pay differential has declined in many countries in the Region and is relatively small**.** On average, women earn some 20 percent less than men in comparable jobs, which is modest by international standards (World Bank, 2005).

Traditionally women's work is generally undervalued: less value is often placed on social skills demonstrated by women than on physical strength demonstrated by men. Women do not have same opportunities for work. A woman who has recently been hired by a company may have a lower wage than a man who started work at the same time and for the same employer. This can lead to a lifetime of lower wages. Women do not have same chance of promotion which in turn affects wage earned. Surely that discrimination in rates of pay between men and women is directly or indirectly banned in national legislations but it does not imply that it does not exist. For example, a minimum wage can also be a preventative weapon in the fight against pay inequalities. The data about net earnings for Croatia is presented in table 5. Data on wage gap should be available at the company level in order for pay inequalities to be discovered.

Table 5 shows that on average in 2004 women in Croatia earned 10,5% less than men. The only legal entity in which women earned more than men is construction. This could led us to conclusion that women earn more in construction as they do not perform manual work (due to physical restraints) but they occupy engineer positions.
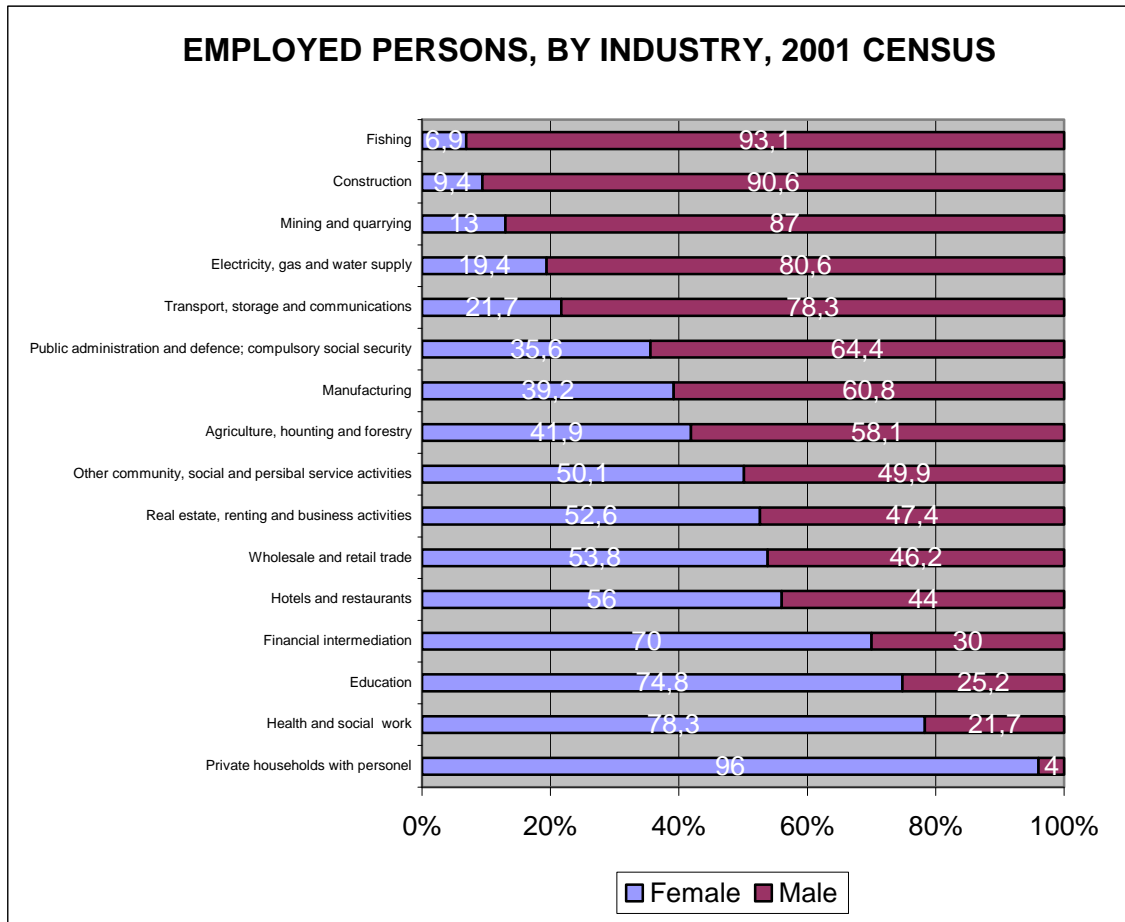
Figure 1: Employed persons by industry, 2001 census

Source: Report: *Women and Men in Croatia 2006*, issued by Croatian Bureau of Statistics, www.dzs.hr, pp. 50

Figure 1 shows that women in construction account for only 9,4% of all employees. Surely to get the real picture about gender pay gaps we should compare data for the same occupation and employees with the same education. However as most data for other countries does not include this much details it gives us possibility to compare data from different countries. The highest gender pay gap in Croatian enterprises is in the area of manufacturing (women earn 78,0% of average men pay) where men account for 60,8% of all employees. The next highest gender pay gap is in financial intermediation (79,7%) where men account for 30% of all employees. This shows that there is no relation among the percentage of men or women in an industry and the gender pay gap in.

Figure 1 shows that there are significant differences in the ratio of women employees in different industries. It is possible to conclude that there are some typical women occupations in Croatia, and some typically men. What should be explored here is whether this is the result of individual's occupational choice or the result of different opportunities for men and women.

Table 6: Gender pay gap in 2004 in Europe 25

	Country	Gender pay gap	Compared to Croatia		Country	Gender pay gap	Compared to Croatia
1	Belgium	6	-	**14**	Luxembourg	14	+
2	Czech Republic	19	+	**15**	Hungary	11	+
3	Denmark	17	+	**16**	Malta	4	-
4	Germany	23	+	**17**	Netherlands	19	+
5	Estonia	24	+	**18**	Austria	18	+
6	Greece	10	-	**19**	Poland	10	+
7	Spain	15	+	**20**	Portugal	5	-
8	France	12	+	**21**	Slovenia	9	-
9	Ireland	11p	+	**22**	Slovakia	24	+
10	Italy	7p	-	**23**	Finland	20	+
11	Cyprus	25	+	**24**	Sweden	17	+
12	Latvia	15	+	**25**	UK	22	+
13	Lithuania	16	+		**EU25**	**15e**	+

e-estimated, p-provisional, +-gender pay gap higher than in Croatia, - - gender pay gap lower than in Croatia
Source: Eurostat: A statistical view of the life of women and men in the EU25, news release 29/2006, March 2006,
http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP_PRD_CAT_PREREL/PGE_CAT_PREREL_YEAR_2006/PGE_CAT_PREREL_YEAR_2006_MONTH_03/3-06032006-EN-BP1.PDF

Tables 4 and 5 show that gender pay gap in Croatia in 2004 was not so high as in the European Union. Only 7 countries from the EU25 have smaller gender pay gap than Croatia (Belgium, Greece, Italy, Malta, Portugal, Poland, Slovenia). If we compare gender pay gap in Croatia to the EU25 as a whole, it can be seen that again gender pay gap in Croatia is smaller for more than 5%. An interesting data is the gender pay gap in Slovenia (9%) that is comparable to the pay gap in Croatia (10,5%), which is lower than for the Region (World Bank 2005). From the point of view that Croatia and Slovenia had a common economic and political history up to the beginning of 1990s it is encouraging that this gap did not increase in any of these countries to the level of the EU average.

The second issue when discussing about pay discrimination is the executive pay. The press generally suggests that executives are overpaid and that their pay is not related to the performance of the enterprise as it is the case for other employees in the enterprise. Executive pay is subject to the same forces that drive compensation for other organizational employees: the labor market, job responsibilities, and required skills. But in practice there are other issues such as: the spread of CEO pay and that of the next lower management level, the personal influences a CEO can exert on his on her own level of compensation, organizational performance attributable to actions of the CEO and the attitude of the organization's board of directors. In fact Caruth & Handlogten (2001) suggest that executive compensation is subject to market forces on the one hand and may be the result of political or manipulative factors on the other hand.

The ethical consideration that we see here is whether executive compensation is reasonable in its amounts? Martocchio (2006) suggests three considerations that need to be considered: abilities to attract and retain top executives (high compensation of executives is necessary to retain top executives), income disparities between executives and other employees (income disparity between executives and nonexecutive employees is increasing) and layoffs of other employees (layoffs of workers but not executives). Executive compensation usually has several components agreed through management contracts: base salary, short-term incentives, long term incentives and indirect monetary compensation.

Table 6: The use of executive compensation contracts in Croatian enterprises

	All enterprises	Small enterprises	Medium enterprises	Large enterprises
Only for top managers	38,71%	37,50%	52,00%	23,81%
Only top and middle managers	37,10%	12,50%	32,00%	61,90%
They are not used	16,13%	37,50%	12,00%	4,76%
Executive compensation is determined through some other combination	8,06%	12,50%	4,00%	9,52%
Total	**100,00%**	**100,00%**	**100,00%**	**100,00%**

Table 6 shows that the use of tailored executive compensation contracts is quite often in Croatia. Some 39% of examined enterprises use it only for top managers, while additional 31% use it for middle managers too. Only 16,1% of examined enterprises do not use any special contracts in executive compensation. As could have been expected the largest percentage of enterprises that do not use executive contracts is among small enterprises (37,5%). At the same time in large enterprises only 4,8% of enterprises do not use at all executive compensation contracts. The data indicates that the possibilities for unethical behavior exist. Unfortunately, Croatian Bureau of Statistics still does not provide official statistics about the comparison of the executive compensation to the compensation of different occupations in Croatia. For example, in the USA the USA of Bureau Statistics presented the data that showed that in 2004 the typical annual earnings for the lowest-paid occupation (child care workers) amounted to mere 0,25% of the average annual CEO salary and bonus, while the ration of highest paid occupation (airline pilots) was 1,88% to the average annual CEO salary and bonus (Martocchio, 2006:440). Available data are only from partial surveys. For example Economic institute Zagreb conducted the research among joint stock companies with the members of the management and supervisory boards.[6] Based on the data from the survey and the data on the minimum and maximum average monthly salaries in Croatia they suggested that the range of average pay to the executive pay in joint stock companies is among 1:7 to 1:10. Green & Tenneriello argue that the top-bottom ratio in compensation should be 15 to 1 in small organizations and 25 to 1 in large enterprises.[7] The same research also showed that the criteria for management compensation is in most cases agreed through tailored executive contracts which is also according to the results of our survey. The research showed that the ratio of fixed and variable part of the executive pay is 89,49% to 10,51%.

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[6] Questionnaires were returned by 191 members of 63 companies. That accounted for 26.9% of all public joint stock companies and 11.6% of the total number of members of the management and supervisory boards of the surveyed companies, http://www.vse.hr/edukacija/Korporacijsko_upravljanje.pdf

[7] Henderson (2006:74)

Table 7: Development of use in components of executive compensation in the period 2001-2003

Component of executive compensation	Percentage	
	YES	NO
Stocks or options	8,8%	91,2%
Increased variable part of the salary	3,7	76,3%
Profitsharing	15,5%	84,5%
Clear criteria exist to determine the relationship among performance of the enterprise and the variable part of executive compensation	33%	67%

Adapted from the USAID, Survey of Corporate Governance,
http://www.vse.hr/edukacija/Korporacijsko_upravljanje.pdf

Table 7 shows that in the period 2001-2003 the major concern in executive compensation was to establish a relationship among an enterprise's performance and the variable part of executive compensation. At the same time distribution of stocks and options was used in only 8,8% of Croatian enterprises that indicates that executive compensation in Croatian enterprises are still underdeveloped. Comparably, in the USA not only that most enterprises use stock options but options as a percentage of executive pay increased from 27% to 60% through the 1990s (McCall 2005:243).

Table 8: Components of executive compensation

	All enterprises count	All enterprises %
No special compensation	19	28,79%
Short term bonuses	34	51,52%
Long term bonuses	0	0,00%
Options	7	10,61%
Benefits	6	9,09%
Other	0	0,00%

Table 8 is based on our research performed at the beginning of 2005. It shows that 29% of examined enterprises had no special incentives for executives. In our opinion this data is the result of compensation practice in state own enterprises that use collective agreements that regulate salary issues for all employees. The most used incentive in the case of executive compensation is short term bonus. The trend to use short term bonuses as the variable part of the salary was among the most important changes that occurred in the history of executive compensation. Because salary increase budgets remained well below the historical averages, increased emphasis is being put on short-term variable pay programs for all levels of employees. More than half (51,5%) of examined companies in Croatia use this method for executive compensation. Options are used in 10,6% of examined enterprises which is a small amount compared to the global trends. Henderson (2006) notes that studies performed back in 1990s in USA found that almost all enterprises use short term incentives for managers.[8] Same studies found that the median CEO bonus was approximately 50% of the base salary. Lawler (2000) suggests that pay for performance in case of managers should have multiple form of pay for performance. Some of their rewards should be tied to corporate performance, some to business unit performance and to individual performance.

Although, it seems that the ratio among executive pay and average employee high is not so high in May 2006 the press revealed some of the highest executive salaries in Croatia in the

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[8] For example: study by The Conference Board (1990) or study by the Hay group (1985)

first three months of 2006.[9] They state that the highest pay is 207500,00 kn which is some 46 times higher than the average salary in Croatia. Furthermore, if we take first 20 highest salaries according to this source, the ratio decreases to some 17 times. This shows that generally speaking, the amount of executive pay to the average employee pay is not so high, but if we take individual examples it can be seen high oscillations.

6. CONCLUSIONS

When jobs are essentially the same, their remuneration should be the same. Or, in other terms equal pay for work of equal value would mean that the compensation system is ethical. Of course, to determine whether the work performed is of equal value, a comparison of jobs is required. This involves assessing the nature of tasks and demands made upon workers in carrying them out, such as skill, effort, responsibility, etc. But this is just assuring a good base for a compensation system and a fair base pay. The second important part of any compensation system is to asses the work of an employee and based on this determine the variable part of his pay. People tend to identify as unfair things that they merely do not like. However, there are a number of considerations that need to be examined to support actual unfairness and unethical behavior in compensation. Distributional fairness necessarily involves assessment of contribution and effort that an employee has shown towards the accomplishment of company's goals. In this paper we have empirically tested some ethical issues in compensation in Croatian enterprises.

The first thing that we tested is the existence of compensation strategies in Croatian enterprises. The results of our survey have shown that only 14,3% of all enterprises from our survey sample do not have a formulated compensation strategy. In our opinion, the existence of a compensation strategy in the examined enterprise leaves very little space for subjectivity in determining rewards as compensation practice in these enterprises supports human resources' or competitive strategies. This conclusion leads us to the first hypothesis of our paper: variable compensation in Croatian enterprises is in most cases based on objective performance indicators e.g. performance appraisal and piecework related pay. Our survey has shown that most enterprises from the survey sample do have variable compensation (96,4%), although the basis for determining variable compensation differs among enterprises. There are actually two most often used basis for determining variable compensation: supervisor's subjective rating (used in 33,7% of examined enterprises) and performance appraisal (34,9% of examined enterprises). Piecework pay standards are used in 21,7% of examined enterprises. Although supervisor's subjective rating and performance appraisal are in some instances similar, performance appraisal is a more formalized process, and thus more objective. Again, comparing supervisor's subjective rating and piecework pay, can be seen that piecework related pay is much more objective as it is also based on formal standards that need to be achieved. Based on these findings we consider that variable compensation in Croatian enterprises is in most cases based on objective indicators (performance appraisal used in 34,9% of enterprises + 21,7% enterprises using piecework related pay sum up to 56,6% of enterprises that use objective performance indicators for determining variable compensation). Therefore we consider the first hypothesis of this paper accepted. Here we did an additional examination of the attitude of survey respondents to the performance appraisal. We found that the respondents find performance appraisal a good method for determining variable part of the salary, but only if applied properly (68,8%).

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[9] Nacional, no. 550, dated 30 May 2006, pp. 32-42

Second hypothesis of this paper was that in Croatia the problem of gender pay gap is not as widespread as in developed western economies. We have shown the data for gender pay gap in Croatia in different industries, as well as gender pay gap in all EU25 member states in 2004. In general gender pay gap in Croatia is 10,5% meaning that in Croatia women on average earn 10,5% less than men. This data is quite encouraging as the average gender pay gap in EU25 is 15%. There are only 7 countries in the EU25 that have a smaller gender pay gap than Croatia (Belgium, Greece, Italy, Malta, Portugal, Poland and Slovenia). All this undoubtedly shows that at the problem of gender pay gap is not so significant in Croatian enterprises as it is in most developed European economies (for example UK- 22%, Germany – 23%, Finland – 20%, Sweden – 17%). Croatia has a smaller gender pay gap than most new EU member states. The highest gender pay gap in Croatia is in manufacturing and it amounts to 22%. Again, this is not so high compared to the highest average pay gaps in the developed western economies.

The third ethical consideration explored in this paper was related to the ethical issues in executive compensation with special attention to the comparison of executive pay amounts to the average employee pay. Our research has shown that most enterprises in Croatia use executive contracts for determining the amount of executive pay. Executive contracts are used both for top managers (in 38,8% of examined enterprises) and middle managers (37,1% of examined enterprises use it both for top and middle managers). Only 16,1% of examined Croatian enterprises do not use executive contracts. This led us to conclusion that the base for determining employee pay and executive pay is not the same and therefore exist possibilities for unethical behavior. Next, we compared the amounts of executive pay to the average employee pay. We used the data provided by Economic institute Zagreb which argues that the range of average employee pay to the executive pay in joint stock enterprises is among 1:7 to 1:10. This ratio is several hundred times smaller than the ratio in the US enterprises. It is also according to Green & Tenneriello's findings who argue that the top-bottom ratio in compensation should be 15 to 1 in small organizations and 25 to 1 in large enterprises. Compared to this theoretical ratios the ratio in Croatia is more than acceptable, as most public joint stock companies in the survey of Economic institute can be categorized as large enterprises. No exploration of executive compensation can neglect the impact of different components of executive compensation to the total amount of executive compensation, especially stock options. In most countries the increase in the amounts of executive pay is the result of use of stock options. In Croatia two independent researches, our and the research performed by the Economic institute Zagreb, showed that only 8,8%-10,6% of examined enterprises use stock options. This is surely one of the reasons why the gap among executive pay and average employee pay is not as high in Croatia. The most used component of executive compensation in Croatian enterprises is short term bonus as it is used in more than a half of the examined enterprises (51,5%). Long term bonuses, on the other hand, are not used in Croatian enterprises.

Finally, although there have been pressures from the public arguing that there are several ethical issues in compensation that need to be examined our research has shown the opposite. Compensation systems in Croatian enterprises are mostly based on objective performance indicators with acceptable gender pay gap and executive compensation. However, it will be interesting to reexamine how will the Croatian approaching to the EU membership influence presented ethical issues in compensation. This research should be taken especially in a few years when Croatia enters the EU.

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THE EFFECTS OF HIGH PERFORMANCE WORKPLACE PRACTICES ON FIRM AND WORKER OUTCOMES: EVIDENCE FROM A CROATIAN ECONOMETRIC CASE STUDY[1]

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Abstract

To extend the range of available evidence concerning the effects of innovative work practices (IWPs) on worker and firm outcomes, new survey data is assembled for more than 470 employees (more than 80% of production workers) in a single manufacturing firm in Croatia. There is large variation in participation in online team membership, offline team membership, employee ownership, and incentive pay, and thus our data enable investigation of the impact of both single IWPs as well as combinations of IWPs. We find that amongst IWPs membership in offline teams most often yields favorable outcomes for firms, notably the provision of discretionary effort by employees and the tendency to peer monitor, as well as improved worker outcomes, including job satisfaction, employee involvement and commitment. In addition to offline teams, the other IWPs usually have similar favorable outcomes for firms and workers. Moreover participation in of sets of IWPs that include offline teams and other practices such as financial incentives, is found to yield benefits to both employees and firms. As such our findings provide support for those who argue that innovative IWPs will produce mutual gains. Our findings also help to identify the key channels through which different IWPs are working. We also find several interesting effects from our controls and the effects of gender are often striking with women perceiving that they are less empowered and reporting that they are less willing to engage in peer monitoring.

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1. INTRODUCTION

There is abundant evidence that innovative work practices (hereafter, IWPs) of various kinds, such as teams, quality control circles, no-layoff policies, job rotation and employee ownership, have spread rapidly in developed market economies during the last thirty years. Freeman, et al.(2000) report survey evidence that, between 1983 and 1993, the number of non-monetary incentive programs offered by firms increased by 500% in the U.S. Similar trends appear to be at work in other countries including the UK (e.g. Wood et al., 2002), Japan (e.g. Kato, 2000) and Finland (e.g. Kalmi and Kauhanen, 2005). While the corresponding evidence for transition economies is much slimmer, the available evidence is also suggestive that such practices are spreading.[2] Unsurprisingly both theoretical and an empirical literature have appeared to examine the impact of IWPs on both business performance and employee outcomes. As different scholars from different fields in the broad area of industrial relations have applied varying approaches to explore diverse research questions, those literatures have grown rapidly. At the same time, it is clear that analytical work of the kind that is becoming commonplace for advanced economies and yet which focuses on developing and transition economies is very slim. Since it is important to determine whether findings for firms in advanced market economies carry over to other economies, the first contribution of this paper is to extend the geographical coverage of the empirical literature. This we do by assembling and analyzing new survey data set for a large Croatian manufacturing firm with our paper perhaps representing one of the first such investigations for a former communist economy.

In addition, there are other reasons why case studies of firms in transition economies are perhaps of special interest. For one thing, some have argued that the legacies of communism will help to shape and constrain contemporary labor-management relations in transition economies. At the same time, Croatia was once part of the Socialist Federative Republic of Yugoslavia (hereafter SFRY), in which a system self-management existed within a communist state. Such a legacy means that examination of the potential of innovative IWPs is perhaps of special interest. Finally, in many former communist countries, often privatization has been accompanied by significant employee and managerial share ownership in the firm at which they work. At our case in Croatia the process of insider privatization was facilitated by the creation of an ESOP and thus it is interesting to try to uncover the ways in which the ESOP and the legacies of self management and communism may help to shape both the design and the effects of IWPs at the case.

Perhaps relatedly, the main contribution of the paper reflects key characteristics of our case and the nature of our data. Whereas most studies tend to examine cases in which attention is focused on one or two IWPs, our case is one in which several IWPs are present, notably offline teams, online teams, incentive pay and employee ownership. In addition there is much variation in participation in these practices amongst employees and also in membership in labor unions. Moreover our survey data has been designed so as to enable us to investigate the impact of IWPs on *both* firm and worker outcomes and to do so for a broader range of such outcomes than has typically been the case in much work in this area.[3] Furthermore, while IWPs are designed to

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[2] For example Jones and Klinedinst, 2005 report the diffusion of such practices in Bulgaria

[3] Most evidence that uses country surveys, such as Kahaunen and Palmi (2005) for Finland, understandably has tended to concentrate on worker rather than firm outcomes. This is also true of most case studies that examine outcomes collected from employee surveys (e.g. Batt, 2003). By contrast our survey is unusual insofar as it enables us to investigate possible links between various work practices and employee outcomes (including commitment, employee involvement and job satisfaction) *and* outcomes of most interest to firms, such as peer monitoring and the supply of effort. There are other studies, including some of those produced by the shared capitalism project (e.g. Freeman et al 2006 that take a similar tack though they tend not to go as deep within the black box as does this paper. Also there is an important and often neglected body of work that has used employee surveys to look at firm and worker outcomes in firms with very different organizational structures, notably worker owned firms. Studies

bolster firm performance, the empirical evidence on their actual economic effects is often quite mixed.[4] Also, for the most part, there appear to be few studies that have endeavored to use such data to *directly* test hypotheses derived from economic theories such as the impact of IWPs on the nature and extent of peer monitoring and, more generally, on what the key mechanisms are by which different HRMs are expected to produce improvements in bottom-line performance.[5] Hence, in addition to providing evidence on worker outcomes, our survey has been designed to capture information for several other areas of interest that figure prominently in theoretical work, mainly by economists. These areas include the provision of discretionary effort by employees, the extent of horizontal monitoring, the degree of cohesion or cooperation within the organization, the extent to which employees are interested in product quality, and the degree to which employees have knowledge of and interest in their job and its relationship to company goals. In this econometric case study,[6] we use these unusual measures that are derived from data we have collected using face-to-face surveys to investigate the impact of IWPs, such as employee ownership and participation in offline teams, for employee behaviors that are expected to affect firm outcomes. [7]

In turn we are able to investigate whether IWPs deliver benefits and, if so, whether these accrue to employees and/or employers and to determine whether there are mutual gains (Applebaum et al. 2000). Furthermore, given the importance many have attached to packages of IWPs (e.g. Ben-Ner and Jones, 1995) our data enable us to begin to see if there are varying effects to different combinations of IWPs and to see if conclusions reached using data for other cases (with more restricted combinations of IWPs) carry over to this case in which a rich set of IWPs is present.

The structure of the paper is as follows. In the next section we briefly review theory and empirical evidence. Then we overview the case study and its environment and also describe our most unusual data. In the next two sections we examine the impacts of these practices on outcomes for workers and the firm. In the final section we summarize our findings and offer some concluding comments.

2. CONCEPTUAL FRAMEWORK AND EMPIRICAL LITERATURE

In this section we begin by reviewing theoretical and empirical literature as it mainly concerns relationships between IWPs and firm outcomes. This is interwoven with a brief review of the corresponding literature that concentrates on the impact of IWPs on worker outcomes. In both

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include work by Rhodes, Long, Greenberg, Ros for US firms and Bradley and Gelb for firms elsewhere.

[4] Note that the bulk of evidence on economic outcomes has been derived from firm-level, cross industry surveys. Such studies necessarily have shortcomings such as the inability to control for variation in IWPs within large multi-plant firms. Equally most surveys of this evidence (e.g. Kruse, 200X and Doucouliagos, 1995) find that normally most innovative IWPs such as profit sharing and employee ownership are beneficial to firm performance. However not all assessments are so optimistic -- see for example, Ben-Ner, Jones and Han, 199X.) In part assessments differ because of the varying reliability of findings, that reflects the different types of econometric methods used, underlying data.

[5] There is a neglected history of economists trying to measure some of these variables, including Stafford (1980). More recently, Ros (2001, 2003) is a notable recent exception in attempting to provide evidence on economic hypotheses such as effort supply by using data derived from worker surveys. Unfortunately his findings are restricted in part because of small sample sizes.

[6] The methods and approach used in empirical work variously described as insider econometrics (Ichnioski and Bartel) personnel economics (Lazear (e.g) and econometric case studies often overlaps. The distinctive feature is the use of micro data usually for one firm. Recent examples include. Ichniowski et al (1997), Hamilton et al.(2003) Earlier examples include Barber, Gibbs and Holmstrom (1994).

[7] As such we continue procedures that were developed in earlier work, beginning in 2000 for US firms. See for example Jones et al., 2003.

areas we note that often the picture is muddled with theoretical work in particular tending to yield ambiguous predictions as to the impact of innovative IWPs. Since ours is not a theoretical contribution, here we merely highlight some key themes and focus on those theoretical issues that are most pertinent for our case. In particular we discuss ways in which theory suggests that the key IWPs at our case, namely different kinds of teams, employee ownership and incentive pay, might have potential impacts on important aspects of individual behavior. While we concentrate on theoretical issues relating to the expected impact of *individual* innovative HRM practices such as teams, we also examine theory concerning the potential payoffs to *combinations* of IWPs.

So far as the literature on firm outcomes is concerned, much literature recognizes that the organization of the firm matters for employee behavior (and thus ultimately on firm performance) and thus is necessary to go inside the "black box" that is usually ignored in simple micro-economic theory. Broadly speaking we may distinguish mechanisms that focus on the effect of IWPs that emphasize financial participation, such as employee ownership, from those that stress employee involvement and skills, such as teams.

Labor contracts are necessarily incomplete, providing opportunities for opportunistic behavior by employees and employers. Since the interests of employers and employees may not be aligned, the degree of effort expended by employees is a variable, rather then something that is fully specified in a labor contract. In turn, a literature has emerged that shows how the degree of effort may be affected by particular IWPs such as teams and how these relationships may be affected by other aspects of the firm's institutional set up with a substantial body of theoretical work concerning "team production", and also a related literature on "teams".[8] This literature on "team production" is concerned with the provision of incentives in situations where team output can be observed but individual productivity is unobservable. Dividing the output equally between team members leads to well-known free-rider problems. The early literature concluded that the presence of an outside party is necessary for team production to function, either in performing a monitoring function (Alchian and Demsetz, 1972) or acting as a "budget breaker" (Holmström, 1982). Among subsequent works, the most relevant for our purposes is the literature stressing the role of horizontal monitoring.[9] It has been argued that monitoring functions can be performed more efficiently by employees who observe each other's work effort on a continuous basis (Putterman, 1984). Similarly, it has been argued that teams can achieve first best outcomes once they develop norms against shirking (Kandel and Lazear, 1992).

By "teams" we refer to mainly to work practices in online teams whereby employees work in groups rather than individually and they also have some discretion over their working methods. According to this definition, to some degree, teams have internalized the monitoring function and thus may be less subject to the free rider problem associated with team production. Incentive problems are not the only problems facing teams. Teamwork, both in online and in offline teams, usually involves regular meetings between team members that are not used in productive activities. Teams may also increase employee expectations about increased discretion. If these expectations are not fulfilled, it may create frustration and lower work morale (Heller et al. 1998).

While there are distinct costs associated with working in teams, several authors have suggested that in many situations the advantages outweigh the costs and many have stressed that teams are expected to be associated with improved supply of effort. Thus the important question to understand is it that employees develop norms that protect from shirking and other undesirable side effects of team work. Disciplining of co-workers is likely to inflict psychological costs on

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[8] Heywood and Jirjahn (2002) also make a similar distinction, though using slightly different terminology.
[9] For other related literature, see the insightful discussion in Dow (2003, ch. 8.5).

employees, and therefore it is not likely that they would engage in it without additional inducements (Freeman et al., 2004). Increasing employee discretion without providing incentives for effort may produce detrimental effects: for instance, employees within autonomous teams that have wide discretion on production methods and the pace of and may use this discretion to work at a more leisurely speed.

If production technology can be characterized mainly as team production, then pay structures tied to individual performance cannot be used. Two relatively widely used alternatives are company based profit-sharing and employee share ownership schemes. Workers who receive more flexible pay are expected to be more committed to their firm, to work harder and smarter and to be more likely to engage in the accumulation of firm-specific human capital. And there exists fairly consistent evidence that these schemes have modest but positive performance impacts.[10] However if employees are members of offline (rather than online) teams, then pay structures tied to individual performance can be used.

It is also apparent that the willingness to engage in horizontal monitoring may vary between union and non-union environments. And the degree of cohesiveness or extent of cooperation between labor and management may be expected to vary between union and non-union forms (though the direction of this effect may vary depending on one' view of unions—contrast Freeman's (not so) new view of unions with the traditional view.

As briefly previously discussed, many stress the need for complementary initiatives. For example, Ben-Ner and Jones (1995) point out that employee involvement alone may not lead to enhanced business performance, especially in the absence of increasing return rights. The coupling of return rights with teamwork may provide the right incentives to engage in peer monitoring and also to withhold from opportunistic use of increased discretion. Several other authors suggest that combinations of various IWPs may be more effective then individual practices, including Ichniowski et. al.(1997) and MacDuffie (1995). However this is not a universal position with, for example, Goddard arguing against this conclusion. Godard (2004) also stresses the role that institutional conditions, notably union attitudes, might play for workplace innovations to be effective. And even amongst those who argue for benefits flowing from combinations of IWPs, disagreements exist on matters such as what exactly constitutes the best set of practices.

Turning to the literature on worker outcomes, since there are very good recent reviews on this matter (e.g. Handel and Levine, 2004) our review will be quite brief. As with outcomes that are apt to be of main interest to employers, again there is no consistent picture in the literature as to whether IWPs are expected to deliver benefits to employees. One camp is often optimistic that workers (as well as employers) may benefit from IWPs. Thus Applebaum et al. (2000) argue that that there are complementarities between IWPs that provide incentives, opportunities for participation and for skill formation. In such circumstances they predict that there will be mutual gains as both employees and employers benefit. This view is shared by Freeman et al. (2006).

By contrast there are many who are much more pessimistic and who expect that workers may suffer in such high performance workplace environments (HPWPs). For example Goddard (2004) and Ramsay (2000) take this view. They expect that employees will not benefit materially from HPWPs and that job stress will be apt to increase. In addition, as many have noted, IWPs may disappoint, and ultimately backfire, because of difficulties related to implementation. [11]

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[10] For company level evidence, see e.g. Wadwhani and Wall (1990); Kruse (1993); Kumbhakar and Dunbar (1993); Jones and Kato (1995). See also the econometric case study by Knez and Simester (2001).

[11] For example Jones and Kato (2004) document that initially there were positive productivity effects at the case they study but that these benefits were dissipated, arguably because of the failure to introduce a balance set of IWPs.

3. THE RESEARCH AND THE DATA

The firm AD Plastik, which is listed on the Croatian stock market is quite important in the local economy. It is headquartered in Solin (near Split) and its major plant has been located there for more than 50 years. The firm has multiple plants and has established a solid market niche in the broad area of manufacturing plastic products, with a focus on high-quality plastic parts for the automobile industry. During the 1980's, when Croatia was part of the SFRY, what is now ADP was part of a larger group of companies that employed as many as 13,000 employees. ADP emerged during transition and the disintegration of the SFRY when the original company was split into several parts. ADP is one of the few large industrial companies in Croatia that has managed to successfully navigate the problems posed by transition. In 2001, as part of the privatization process in Croatia, an ESOP was used as a vehicle to transfer the bulk of ownership to employees and management and to avoid a takeover of the firm by a foreign company. Currently about 53% of the firm is owned by the ESOP, which with individual employees and managers controls a majority of votes (in fact, around 60%). while the majority of the balance is owned by another corporate entity that is a long time strategic partner of ADP.

ADP is part of a larger group, namely the AD Plastik Group that includes ADP and several smaller companies some of which are located in Slovenia, Romania and Russia. Recently overall employment at ADP has averaged about 1300 of whom about 70% are production staff. Employment has been steady during the last few years, averaging between 1300 and 1350 while employment in the group has fallen from 2073 in 2003 to 1974 in 2005.

Currently more than 90% of ADP' output is exported mainly to customers in Western Europe. The company is doing well and sales have tripled during the last three years and data for several plants show that plants have recorded sustained growth over even longer periods. Investment is at high levels and is reported to average in recent years between 12 and 30% of sales. At the same time, the firm faces an environment that is increasingly challenging. Before 1990 most of its plants tended to face mainly domestic competition (within the SFRY) and had comfortable profit margins. More recently, managers perceive that these margins have become quite thin and that competitive pressures have grown, usually from overseas competitors.[12]

Many, including Appelbaum and Batt (1994) argue that globalization and regulatory changes that have increased competition have compelled firms to consider means for improving productivity by the application of advanced HRM practices such as total quality management or autonomous teams. Such pressures appear to have played a part in the introduction of IWPs at our case. Indeed in interviews with managers many mentioned that they faced growing competitive pressures in the 1990's in their product markets and tougher standards for product quality from their customers, including requirements for IOS certification. Accordingly the firm has been required to make strategic responses to a fast changing situation. Such pressures to change were felt especially strongly after the disintegration of the SFRY. They have been sustained in more recent times as Croatia prepares its candidacy for entry in to the EU.

Several kinds of data were collected from the case. Most important are face to face data from surveys of workers. In addition several interviews were conducted with diverse personnel, including managers and union representatives, at our case, AD Plastics (hereafter ADP). Finally, additional information was drawn from other sources such as annual reports and other internal

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[12] Some plants are located in metropolitan areas (including the one in Zagreb.) While we do not focus on those plants in this study we note that they have faced a somewhat different situation from the plants we study. Two of them have aggressively entered emerging product markets such as wireless and broadband. Employment at these plants grew at an extraordinarily rapid clip between 1994 and 1999, and both had strong profit positions. However, some executives at these divisions expressed uncertainty about whether these new markets would be sustainable over the long haul – a view that unfortunately proved to be far-sighted.

documents.

The interviews also indicated that ADP uses a number of innovative IWPs including much use of both offline and online teams. Online teams were first introduced about 4-5 years ago with the introduction of a new production line, namely clothing for auto-seats. Now they are used extensively to produce solutions to "technical" problems involved in organizing production. Online team leaders are appointed by management. While online teams are actually together all the time, meetings are held sporadically, under the leadership of the supervisor. They discuss very concrete production and work problems and always meet during work hours. During one site visit we observed online teams in one department with each containing from 10-12 and mainly female workers.

Offline teams were introduced 2-3 years ago. Offline team leaders are appointed by management and the teams work on specific projects. Typically they hold daily meetings while team leaders meet with managers once a week. Offline teams are fully responsible (within the guidelines of the project design, deadlines and budget) for project organization and the division of work on the projects as well as for achieving project objectives. While team meetings are mainly held during regular hours, sometimes meetings extend beyond these times. Offline team leaders also receive training including in project management knowledge and skills as well as in knowledge for the specific project. It is expected that team leaders will transfer the bulk of this knowledge to other team members. Team effectiveness is evaluated mainly by management.

ADP has other practices that provide for extensive information sharing, including quarterly meetings and a monthly newsletter. During quarterly meetings, the labor force learns confidential corporate information concerning new products, new strategies and financial statements. In addition employees receive a monthly newsletter in which they are informed about developments at the firm. ADP is very interested in skill enhancement of employees, especially as this feeds into enhanced product quality. However, most training is in-house or on-the-job. Training that requires new expenditures (e.g. to hire consultants or to pay for courses) appears to be quite rare and has averaged only from 0.05 to 0.14 % of turnover during the period 1998-2003. There are three unions at ADP. Together they represent about 80% of employees.

Turning to financial matters, ADP provides slightly higher starting wages than other comparable firms. However average wages are still below national averages (the industry as a whole pays low wages) though the most recent collective agreement with the labor union provides for wage increase that are about double the recent inflation rate of 3.5%.

ADP has a long history of financial participation and various forms of incentive pay have existed for many years. Incentive pay is often quite complex with varying elements that apply to different groups of employees. Some employees receive piece rates - this is often for employees who work in online teams. There are several schemes that reward good quality with payments running as high as 50% of the base wage. Then there are special awards for exceptional results by selected production workers ("worker of the month"). Members of offline teams may also receive rewards based on the importance of the project, their position in the team, and the results achieved.

The ESOP at ADP was created in 2001 in an attempt to curb a hostile takeover by a Canadian-based firm. The idea was originated, developed and carried on basically by the top-management, but they succeeded in getting a massive involvement of employees (more than 90% of employees at the time joined the ESOP). Employees were offered two different 'packages' of shares. The smaller package was worth approximately 3,500 Euro, while a larger one was worth

approximately 10,000 € Only a few, mostly top-managers, acquired the larger package. (This was not perceived as a privilege, but more as a sign or expression of a strong commitment and convincement 'to the cause' of the top-management). The acquisition was supported by the 5-year loan from a large Croatian bank, and presupposed that the annual dividends would be sufficient to repay the loan. However it turned out that dividends were able to cover 90% of the first annuity, and in the second year they covered only 60% of the annuity. The balance had to be taken from regular salaries. That induced more than 300 people to drop out of the ESOP during first two years (their shares were offered to the rest of ESOP members and non-members; 41 member accepted that opportunity to increase their package, and 7 new employees entered the ESOP). Today, there are 518 employees actively involved in the ESOP.

At the same time, it was apparent that the firm did not have accurate information on the extent to which employees participated in many of these IWPs. To provide more accurate information both on the incidence of IWPs as well as their effects on employee attitudes towards and behaviors resulting from the IWPs, we administered a survey. By surveying employees at two plants, we were fortunate to collect more than 470 surveys, which gives us an impressive response rate of about 36% for all employees at ADP and more than 50% for those groups of workers and plants at which the exercise was focused.[13] Moreover, when we compare basic demographic characteristics of the sample with the characteristics of the total work force we see that the sample is quite representative.

The average worker surveyed at ADP was 39 years old and has worked at the firm for more than 11 years. About half of the workforce is female and about two in three are currently married. There is a wide spread in the highest level of educational attainment. While 12.6 % of workers have completed a four year degree course, almost 10% of employees did not even complete grade school.

The descriptive statistics also indicate that there is wide dispersion amongst the labor force in their participation in innovative IWPs. On average between 42.8% and 67% of employees participated in one of the four key IWPs that we have identified. The highest rate of participation is in offline teams (67%) while fewer than 43% report that they are in an online team. However for those who are in an online team, more than 58% of respondents report that they belong to teams that are self-managed. About half of the respondents were union members. The research provided additional information on the incidence of participation rates in combinations of IWPs within ADP. Again we observe much dispersion in participation rates in these practices. As much as 65 employees (about 14% of respondents) were in both offline teams and the ESOP; however, 137 (about 30 %) were in neither plan. By comparison, 99 employees (about 21% of respondents) were in both online teams and the ESOP, while only 80 employees (about 17%) did not participate in either plan. Interestingly 28 employees (about 7% of respondents) report that they were in both online and offline teams, as well as the ESOP, and also that they received incentive pay. By contrast 53 workers (11%) report that they were in no practice. Or, in other words, almost 90% of employees participated in at least one HRM innovative practice.

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[13] The questionnaire builds on core questions that have been used in previous work with which one of the authors has been associated, e.g. Jones et al., 2003. Thus the survey is "customized" to reflect specific features of the HR set-up at a specific firm. Most questions use Likert type scales and solicit employee responses in worker outcome areas such as job satisfaction and trust and on issues that are more likely to be regarded as relating to firm outcomes such as willingness to engage in peer monitoring and the provision of discretionary effort.

4. THE EFFECTS OF IWPS ON FIRM AND WORKER OUTCOMES: SIMPLE HYPOTHESIS TESTS

In this section we begin to provide evidence on the impact of IWPs on firm and worker outcomes by comparing a wide range of outcomes for participants and non-participants and conducting simple hypothesis tests. Since some of our interests are in what is a relatively new line of inquiry, the available literature with which to guide our research is rather limited. Hence often we employ alternative measures for key ideas — for example, to measure discretionary effort we use measures of both absolute and relative effort. We proceed in two steps. First, the method was to focus on only one HPWP at a time. We compare outcomes for those who are (are not) members of (i) offline teams; (ii) online teams; and (iii) the ESOP. Finally, for the subset of workers who are in an online team we examine whether it matters to be in a self-directed team.

Next, reflecting our interest in the effects of combinations of IWPs, we identify four interesting sets of innovative HRM polices within the case.[14] For example the first combination is for those who participate *both* in an offline team *and* the ESOP; outcomes for that group are compared with those who participate in *neither* offline teams nor the ESOP. In the final set of such comparisons we compare outcomes for those who participate in all core practices -- in online teams, in offline teams, in the ESOP and in the incentive pay scheme -- with those employees who do not participate in any of these practices. In all exercises findings are reported under several categories of outcomes. While many of these dimensions are reasonably standard in the literature, namely empowerment, communication, commitment, trust, job satisfaction, intrinsic rewards and job stress, others are more novel, particularly effort and teamwork/peer monitoring.[15] In all of these exercises we use *t-tests* on means to determine if there are statistically significant differences in outcomes for employees who do/do not participate in one or a set of IWPs.

From the statistics it is clear that membership in an offline team by itself tends to be associated with both enhanced worker and firm outcomes. For most categories, statistically significant differences exist between members and non-members for the bulk of questions within each block. Thus both questions concerning empowerment indicate that offline team members believe that they are more empowered than those who are not in such teams. A similar picture prevails for four of the five questions concerning different ways of capturing communication. By using two measures of effort as well as data on hours worked, members in offline teams report that they work harder and longer than do their peers who are not in such teams. The data on offline teams also show that team members are more committed to the company than those who are not in such teams, are more trusting of the firm, have higher levels of job satisfaction and they experience higher levels of intrinsic rewards.. Furthermore members of offline teams are much more likely than those who do not belong to offline teams to engage in peer monitoring — to say something to a worker who is slacking off. The only area in which offline team membership is not associated with a statistically significant enhanced worker or firm outcome is job stress where no differences are apparent.

Based on the research data, we make two observations. First, in some cases we observe that it is another practice that appears to be having a bigger effect on an outcome then does participation

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[14] Of course this is not an exhaustive list of combinations or categories. We could, for example, make comparisons with those in intermediate categories—such as participating in only one HRMIP. In future work we may extend the range of comparisons.

[15] While many of these dimensions are frequently examined in the literature (e.g. Capelli and Neumark, 2001; Batt, 2004; Freeman et al, 2000) unsurprisingly the particular language questions used varies. As already noted the specific wording in out questionnaire builds on core questions that have been used in previous work with which one of the authors has been associated, e.g. Jones et al., 2003. Also the questionnaires used in those earlier studies include some novel adaptations of questions in some areas, including the provision of effort.

in an offline team. For example, compared to membership in an offline team, membership in a self-directed online team is observed to have larger effects on several outcomes concerning communications. Second, in the main, the general pattern observed for offline teams carries over to the other practices for which we report evidence. However, the evidence is not quite as compelling. Thus, membership in the ESOP does not reveal marked differences concerning commitment, and online team membership is not linked with many significant differences concerning teamwork/peer monitoring. Also while belonging to a self-directed team usually is associated with more teamwork and more peer monitoring, this is not found for all questions. At the same time in the bulk of instances the findings indicate favorable worker and firm outcomes for participants. Consistent with those who hypothesize that IWPs will deliver benefits to both workers and firms we also find that participants in all of the IWPs communicate more often than do non-participants with managers and supervisors outside of their work groups or teams and also communicate more often with workers outside of their work groups or teams. Participants in all practices are also found to put more effort into their work and are more satisfied with their work. Again there is no evidence that stress levels differ for participants and non-participants in the other IWPs.

After these single-dimension research, we turn to combinations of innovative IWPs. The evidence is broadly supportive of predictions that combinations of IWPs will be expected to be associated with better worker and firm outcomes (compared to situations when there is no participation at all.) Anayzing outcomes for those who are (are not) in an offline team and an ESOP, we see a consistent evidence that this pair of IWPs is associated with favorable outcomes for workers and for the firm. For most categories, statistically significant differences exist between members and non-members for the bulk of questions within each block. Workers who are in offline teams and in the ESOP report that they are more empowered, engage in more frequent communications, are more committed, have more job satisfaction and have higher intrinsic rewards. They also work harder and undertake more peer-monitoring.

When we consider the impact of membership in offline teams together with incentive pay, the results are virtually identical to those found for participation in an offline team and an ESOP. By comparison with findings for the ESOP-offline combination, findings for the offline-incentive pay combination are slightly weaker only in the area of commitment. But again in most categories, statistically significant differences exist between members and non-members for the bulk of questions within each block. Workers who are in offline teams and who also receive incentive pay, report that they are more empowered, engage in more frequent communications, have more job satisfaction and have higher intrinsic rewards. They also work harder and undertake more peer monitoring.

Very similar patterns of effects prevail concerning outcomes for the remaining pairs of IWPs. When we consider the impact of membership in online teams together with either participation in the ESOP or receipt of incentive pay, the results are virtually identical to those found for combinations involving participation in an offline team, especially the pair including participation in the ESOP. Moreover, the findings are virtually unchanged when we contrast outcomes for those employees who are in *all* practices with those who belong to none.

In sum, the evidence from both parts of the research support for the general proposition that HRM IWPs are associated with better worker and employer outcomes — innovative WPs can deliver mutual gains. The analysis indicates that when workers participate in HRM IWPs, they develop stronger sense of empowerment, achieve more intrinsic rewards from their jobs as well as higher levels of job satisfaction. In turn, these empowered and more satisfied workers tend to trust management more and develop stronger commitment to the firm. These attitudinal changes are accompanied by behavioral changes. When workers participate in HRM IWPs they tend to

have more open and more frequent communication with management (as well as with their coworkers), exert more effort (shirk less) and engage in more peer monitoring (or horizontal monitoring). Finally, HRM IWPs are not associated with increased stress. As such HRM IWPs appear to offer a strong point of hope, even in firms that face a difficult environment, such as those in transition countries.

5. THE EFFECTS OF IWPS ON FIRM AND WORKER OUTCOMES: MULTIVARIATE ANALYSIS

In this section our main aim is to see if the conclusions yielded in the exercises reported in the previous section carry over once we introduce additional controls. To this end we estimate a variety of ordered ***probit*** models concerning diverse employer and employee outcomes. In essence we estimate three sets of models for each outcome. In the baseline models, as well as controls for personal characteristics (tenure, age and gender), we include only one HRM IWP.[16] Besides our four core IWPs (offline teams, online teams, ESOP, and incentive pay), for the subset of workers who are in offline teams we also consider whether it matters to be in a self-directed team. We are also able to investigate the impact of union membership in a similar fashion. The remaining two sets of probits reflect our interest in the impact on worker and firm outcomes of *combinations* of IWPs. In the second set of exercises, we investigate the influence of several *pairs* of IWPs that we have previously examined using simpler methods. Reflecting our earlier theoretical discussion these are constructed so as to combine membership in one type of team alongside some mechanism for financial participation. In the last sets of exercise we include information on all four IWPs and then, in separate regressions, we also consider the effect of union membership as well as all four IWPs. The final thing we do in this section is to begin to compute and report selected marginal effects in order to see if the effects that we uncover are not only statistically but also economically significant.[17]

The results are for two alternative measures of discretionary effort — first measure is a measure of *absolute* effort while second attempts to get at *relative* effort.[18] With these (and other) results, it is important to remember the precise variable definitions that we use. Specifically, online team membership, offline team membership, incentive pay, union membership and self-directed team membership are defined so that membership = 2 and not being in a team = 1. Consequently, in both cases, a *negative* coefficient on any of these variables implies that being in any type of team (or receiving incentive pay or being in a union) means that *more* discretionary effort is being expended. By contrast, the definition for the ESOP variable is more traditional, namely on the ESOP = 1 and not in the ESOP = 0, so that a *negative* coefficient on ESOP means that *less* discretionary effort is being expended.

From the set of models researched, we see that there is evidence that teams of both types enhance the provision of effort, and that this is also the case for incentive pay. By contrast, neither union membership nor participation in an ESOP is found to have a statistically significant effect on the supply of discretionary effort. Examining the impact of pairs of practices we see

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[16] Replication of the results reported in this section but also including controls for several categories of education and wages (which is also measured as a categorical variable) is underway. Thus far findings are not sensitive to these modifications.

[17] In future work we will do this more systematically. In addition, in future work we will expand the number of specifications that we will estimate to explore issues of complementarities either by developing interactive measures of by creating systems of practices. In view of the number of observations set alongside the number of practices, the latter might be the only feasible way to proceed. In earlier work (Jones and Eva, 1997) this was the tack taken in a firm-level study that used firm-level data and developed systems of practices.

[18] This variable is normalized with reference to effort spent watching TV.

that membership in an offline team enhances the supply of effort in both models, though in these cases there is no additional impact from financial participation. In the other two regressions, in one instance online team membership is associated with more effort, other things equal, while in the other case only incentive pay (and not online team membership) has a positive impact on the supply of effort. As in the most restricted models, neither union membership nor participation in the ESOP is found to matter for the supply of effort. The final set of models include all IWPs. Reassuringly we still find that offline team membership enhances the supply of effort, though now no other IWP or union membership has an effect. In addition, and as in all other models, we observe that, having controlled for tenure, it is older workers that report that they supply more discretionary effort.

The key finding is that, as with the results for absolute effort, membership in an offline team is consistently found to enhance effort supply. This is found in all specifications, both those in which that HRM is included alone or alongside other measures of financial participation and in the fully augmented models. In addition, and unlike previous findings, in all models we find that membership in an ESOP will enhance the provision of effort when effort is measured in this relative way. For this measure of effort, the fully augmented models provide evidence that the remaining IWPs also matter for effort supply, though this does not show up in the more parsimonious specifications.[19] We find that older workers report that they work harder. In addition, the negative and significant coefficient on gender means that in many specifications there is evidence that men believe that they are more likely than are women to work harder.

We investigate also the impact of IWPs concerning, respectively, whether respondents have engaged in horizontal monitoring and also their willingness to horizontally monitor. The results reported are particularly striking. We find that membership in both online and offline teams is associated with a greater willingness to engage in horizontal monitoring.[20] To some extent this finding is mirrored for offline teams, since we observe statistically significant and positive coefficients for that HRM. For the most part no other HRM IWP is found to affect monitoring. Also the results for some controls reveal an interesting story. They indicate both that women are typically softer on monitoring (compared to men) and also that older workers are apt to monitor more.

In the following part of the research we turn to the first measure that relates to a worker outcome, namely empowerment (decision-making ability) or employee involvement (measured by 'my say in what happens on my job'). In several respects the two measures yield similar results and findings. A clear picture emerges that all IWPs enhance employee participation, both alone and in combinations. This is perhaps most evident concerning the impact of offline teams. For both measures of employee participation we find that in *all* specifications offline teams lead to employees perceiving that they are more empowered. This pattern is also essentially repeated concerning ESOPs — the coefficient on ESOPs is consistently negative and statistically significant (where the ESOP dummy is measured as 1 = in the ESOP and 0 = not in an ESOP.) Findings are also reasonably strong concerning the other two IWPs, the incentive system and online teams. In all specifications the incentive system is always found to be an HRP that enhances the average employees' sense of empowerment. For online teams the evidence of positive effects is a little spottier.

The evidence also indicates that union membership does not play a role in accounting for differences in perceived levels of participation. Finally, so far as employee characteristics are

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[19] It is important to remember that for these and other results, since different numbers of observations are usually involved in the different specifications, that findings from different estimates are not usually directly comparable.
[20] Again a positive coefficient on offline team means I am more willing to horizontally monitor if I am a member of a team, SINCE 1 = IN TEAM AND 2 = NOT IN TEAM

concerned, the coefficient on gender is consistently positive in both sets of findings thus indicating that it is men, rather then women, who report that they have a greater say in their job, even after controlling for benefits for participation that flow from innovative WPs. While cultural differences between men and women presumably play a role in accounting for this difference (and other gender differences in outcomes), an interesting line of inquiry would be to pursue the reasons for these differences more thoroughly.

For membership in offline teams, participation in the ESOP, and receiving compensation in part through the incentive system the evidence is very strong that each of these IWPs alone as well as in combinations is associated with enhanced job satisfaction. This is the finding for these three IWPs in all specifications. For online teams the evidence is also strong, with coefficients on that variable not attaining customary levels of statistical significance only in the fully augmented models.[21]

While the pattern of the findings on job satisfaction thus mirrors some of the results reported for other outcomes for workers and the firm, there is an important difference in the factors that account for differences in job satisfaction. The membership in a labor union is also found to enhance job satisfaction -- no similar effects of union membership were observed for other outcomes. There is also a novel finding concerning one of the controls, namely for tenure, for which the net positive coefficient implies a negative effect on job satisfaction for longer tenured workers. As with empowerment, men report more job satisfaction than do women, other things equal.

Analyzing the impact of IWPs on communications, there is evidence that IWPs play a role in accounting for variation in this employee outcome. This is especially the case for both types of teams for which, except in the fully augmented models, team membership is always found to matter at customary levels of statistical significance. There is also some weaker evidence that participation in the incentive plan is associated with greater frequency of communications between respondents and other groups. By contrast participation in the ESOP (and union membership) play no role. As for controls, the positive coefficient on gender means that women report that they are apt to communicate less frequently than men.

The evidence offers quite strong and additional support for those who hypothesize that high performance workplace practices such as teams and mechanisms for financial participation will deliver improved outcomes for employees. In all specifications it is the case that membership in offline teams and participation in the ESOP is associated with employees reporting higher levels of commitment to the firm. The evidence is also reasonably strong that membership in online teams leads to improved commitment while, for incentive pay, there are also some indications that this too plays a role. By contrast, union membership has no effect one way or the other. Since the net tenure coefficient is positive our results also indicate that workers who have longer tenure have weaker commitment to the organization.

Compared to some of the findings emerging from the research, the evidence on the impact of IWPs on the likelihood of employees engaging in team-like behavior (as they assist their peers in various kinds of on the job training) is relatively weak. As with many other outcomes it is offline team membership that is found to have the clearest and most consistent effects, with membership in an offline team enhancing the likelihood of employees assisting other employees in on the job training. While the evidence for other IWPs is more spotty, nevertheless such evidence is present and is especially evident in the preferred specification when, beside offline team membership, teamwork is also facilitated by membership in the ESOP. However, and rather surprisingly, we also find that online team membership tends to undermine team-like behavior. The evidence

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[21] These are the preferred specifications.

also indicates that tenure and age play significant roles in accounting for differences in the propensity for employees to engage in team-like behaviors. Thus the net positive coefficient implies that workers with longer tenure are apt to engage in less team-like behavior, as are older workers.The findings offer evidence on the role of IWPs concerning intrinsic rewards. This is measured by how well employees regard their job as making use of their skills and knowledge while in the other case we look at the importance of what workers do at work relative to what they earn. For both measures of intrinsic rewards again we find that the HR practice that appears to enhance this outcome in the eyes of employees is membership in most specifications in offline teams, though other IWPs are found to be statistically significant in the fully augmented specifications. However, when intrinsic rewards are measured by knowledge and skill membership in online teams arguably plays an even more consistent role than does offline team membership. In both cases, IWPs that provide for financial participation typically do not appear to have much effect, though the ESOP variable is statistically significant. So far as controls are concerned, for this outcome gender appears to be playing the biggest role.

The last outcome we investigate is Trust. Perhaps surprisingly in view of our earlier findings it is policies that promote financial participation that loom largest in these specifications.

The final task in the section is to compute and report marginal effects in order to see if the effects that we uncover are not only statistically but also economically significant. One set of illustrative exercises is to compute selective marginal effects concerning the willingness to horizontally monitor. When this is done we find that the magnitudes of the effects typically are economically significant but not that large. Thus "*if I am not a member of an offline team (rather than a member) then the probability of my strongly disagreeing with the statement concerning my willingness to horizontally monitor is calculated to be 1.9 percentage points higher (category 4), 10 percentage points higher (category 3), 6.5 percentage points lower (category 2) and 5.4 percentage points lower (category 1)*". As we have already noted, the evidence also suggests that women are less likely than men to be willing to monitor. Furthermore we find that, compared to a man, a woman has a 5.6 percentage points lower probability of strongly agreeing with the statement concerning willingness to horizontally monitor (category 1), and a 2.1% higher probability of strongly disagreeing with the statement concerning willingness to horizontally monitor (category 4).

In sum, the evidence reinforces that presented earlier. Often there is pretty solid support for the broad hypothesis that HRM IWPs are expected to be associated with better worker and employer outcomes. The analysis indicates that when workers participate in HRM IWPs, they develop stronger sense of empowerment, achieve more intrinsic rewards from their jobs as well as higher levels of job satisfaction. In turn, these empowered and more satisfied workers tend to trust management more and they develop stronger commitment to the firm. These attitudinal changes are accompanied by behavioral changes. When workers participate in IWPs they tend to have more open and frequent communication with management (as well as with their coworkers). This leads them to exert more effort (to shirk less) and to engage in more peer monitoring (or horizontal monitoring). Finally, HRM IWPs are not associated with increased stress.

While the evidence indicates that all IWPs have beneficial effects for both worker and firm outcomes, the most consistent findings that emerge from the multivariate analysis are for the favorable effects of offline teams. In addition to offline teams, we also find that other IWPs have favorable outcomes. Therefore, adoption of sets of IWPs that include offline teams and other practices such as financial incentives, will yield benefits to both employees and firms.

6. CONCLUSION: FINDINGS AND IMPLICATIONS

In this paper we undertake a variety of exercises including estimating various ordered ***probits*** models to investigate the impact of innovative IWPs separately and in combination for a case (enterprise) located in Croatia. The findings reported in this paper are preliminary and, as we indicate at various points additional exercises might usefully be undertaken. These include expanding the number of specifications that are estimated to explore issues of complementarities, either by developing interactive measures of by creating systems of practices and more systematically estimating and reporting the marginal effects for different practices. Nevertheless, even at this stage in our work, we believe that we are able to draw some interesting conclusions.

The most clear and compelling finding is that amongst the different IWPs it is membership in offline teams that most often yields favorable outcomes for both workers and firms. But in addition to offline teams, we also find that other IWPs usually have favorable outcomes and that participation in sets of IWPs that include offline teams and other practices such as financial incentives, is found to yield benefits to both employees and firms. Membership in online teams (and to a lesser extent in offline teams, in an ESOP and a flexible compensation system) is associated with workers who perceive that they are more empowered, satisfied, committed, trusting, and communicative. In turn this results in their working harder and their being more apt to engage in peer monitoring. These conclusions consistently emerge from several exercises including our estimating various ordered probits models and when we investigate the impact of innovative IWPs separately and when we investigate the impact of pairs and larger combinations of IWPs.

As such, our findings provide support for those who argue that innovative work practices will produce mutual gains and deliver benefits to both workers and firms. In this general sense ours is not an original finding — while the overall body of evidence is ambiguous, some do argue that increasingly there is a body of evidence that suggests that, when properly introduced, HRM IWPs may have beneficial effects.[22] Thus our findings might be viewed as contributing to what might be viewed as an emerging consensus. But amongst that body of evidence our findings may carry more weight than findings derived from some other studies. They are derived from a single econometric case and thus we avoid the problems of firm heterogeneity that plague attempts in many studies to disentangle relationships between IWPs and firm or worker outcomes. Moreover, in investigating relationships between HRM IWPs and particular worker outcomes, notably absolute and relative work effort and peer monitoring, our approach arguably includes measures that improve over those used in most previous studies. As such our findings may also be viewed as helping to identify some of those channels that might be playing the most important roles in accounting for the ultimate improvements in business performance that many associate with HRM IWPs.

In turn sometimes our findings differ in important particulars from findings contained in other recent studies. We find that all four IWPs are often associated with favorable worker and firm outcomes. This differs, for example from Kruse et al. (2006) who report that being a member of an ESOP was often associated with negative outcomes.[23] In our case, the beneficial effects of

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[22] For the U.S. studies include those by Appelbaum et al. (2000), Black and Lynch (1997), Freeman et al. (2000), Helper (1998), Ichniowski et al. (1997), Levine and Tyson (1990), MacDuffie (1995), and Neumark and Cappelli (1999). For the interesting case of Japan see Jones and Kato (1995) and Kato (2000).

[22] This includes previous work by one of the authors where, together with Kato, some exercises similar to those reported in this paper and for comparable outcomes are reported for a group of cases in central New York (see Jones at el, 2003.) In addition see again for Finland Kalmi and Kauhanen (2005) and papers emerging from the Shared capitalism project, such as Freeman et al., 2003, 2004 and 2006.

[23] Similar findings concerning the ambiguous impact of ESOPs have been found in many other studies — see, for

ESOPs may reflect the particular historical circumstances attending the introduction of the ESOP in this particular enterprise. Perhaps the legacy of self-management plays also a role as might the co-existence of a strong labor union, as hypothesized by Goddard (2004.). Furthermore, we find that there are a number of interesting points concerning the role played by different controls. In particular the effects of gender are often striking with women perceiving that they are less empowered and found to be less willing to engage in peer monitoring. Also different controls are found to play differing roles for different IWPs. In the main, these differences concerning controls do not appear to have figured prominently in previous work.

It is also important to emphasize that the firm and workers that we investigate in this case tend to be different from those covered in most of the existing literature. Our study is one of the first to report findings on these diverse issues for workers in a transition economy. It is reassuring to find that support for optimistic hypotheses and evidence in the received literature concerning the impact of innovative IWPs, which were largely based on firms and workers with other characteristics, also carry over to our case. Indeed arguably our findings provide some of the clearest evidence that HRM IWPs can deliver benefits to all parties, even to firms that do not operate in the most advanced market economies and in economies where legacies might be expected to hinder the effectiveness of certain IWPs.

One interesting question that arises form our findings is that, if as appears to be the case, the benefits delivered by IWPs at ADP to both workers and the firm are so clear, especially for offline teams, then what determines which workers participate in particular practices and why is participation in these IWPs not more widespread at the case. In some unreported work we take a preliminary stab at that question and run some simple probits. We find that there are strong differences in the characteristics of workers who participate in each HRM practice. Thus it is clear that older workers are more likely to be a member of an ESOP while age does not play a key role in accounting for participation in other IWPs. Presumably in part this reflects higher average wealth of older workers (as well as a greater likelihood of their eligibility to participate in the original privatization process through the ESOP). Union members are also less likely to be in the ESOP. In future work we plan to examine this question in more depth, including for combinations of IWPs and more closely examining the extent of potential information failures for both employees and employers.

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example, Logue and Yates (2001.)

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Management Turnover as a Corporate Governance Mechanism in Privatized Slovenian Companies

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1. Introduction

Privatization of the socially-owned companies in Slovenia was based on the compromise model, which in most of the companies introduced new owners: employees, investment and state funds.[1] Therefore, the main reproach of Slovenian companies is that corporate governance in Slovenia is too "insider- oriented" and not transparent and that the system is not contributing to the higher efficiency of the companies (Berglof, 2006). The next issue frequently linked with the Slovenian corporate governance system is an unfriendly relation towards foreign investments, which is connected with the government and its influence on the business system as well as with difficult
entry of foreign companies in the network of Slovenian companies. Those networks are usually governed by financial institutions created during privatization (investment and state funds) (Pahor, Prašnikar and Ferligoj, 2004).

Due to the fact that Slovenia is one of the most successful transitions countries with GDP growth of 3.5 percent during the last 15 years and that it will, as a new EU member, at the beginning of 2007 receive the full membership in EMU, the question emerges on how a

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[1] Prašnikar and Svejnar (1993).

somehow unusual ownership structure and close relationships among companies within the local ownership networks influence the economy. A microeconomic analysis of the investment behavior of privatized Slovenian companies has shown that companies have limited defensive restructuring, while strategic restructuring is at the appropriate level (Domadenik, Prašnikar and Svejnar, 2006).

This article analyzes the turnover of management board members in 211 Slovenian companies during 1998 and 2002. We have a complete database that contains enough variability for this period.[2] Available empirical evidence shows that there is an inverse relation between management turnover and company performance, indicating that owners replace poor performing managers (Weisbach, 1998; Warrner, 1998; Rennebogg, 2000). There is also a question of whether inside or outside owners are more active. It is generally considered that outsiders are better owners than insiders (Frydman et al., 1996; Boycko et al., 1996; Earle and Estrin, 1997; Estrin and Roosevear, 1999). We were also interested in the distinction between the outsider owners (state and investment funds or state as an direct owner of the companies). Data used in this article enable these analyses.

In the article we state that the relation between total sales growth and the turnover of management board members is weak but significant. A stronger relation is found in poorly performing companies. None of the owners has a prevalent role in the turnover process. In the group of better performing companies the management turnover rate is higher if the state's ownership share is higher. Management turnover is therefore a corporate governance mechanism in Slovenian companies; however its extent is limited.

The article is structured as follows. Introduction is followed by the review of the theoretical framework concerning the relationship between management turnover and company performance. In the third part we present the data, methodology and the main hypotheses, and continue by analyzing the characteristics of management board members. The fifth part presents the results of the empirical analysis, explaining the influence of company performance and ownership structure on management turnover. Conclusions are presented in the sixth part.

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[2] We were not able to measure the performance of companies on the turnover of CEOs because we only had information on whether a CEO was replaced during the studied period. Since the turnover of management board member was strongly linked with the turnover of CEOs (Knežević Cvelbar, 2006), our analysis is correct.

2. Influence of Company Performance and Corporate Governance System Characteristics on Management Board Member Turnover

2.1. Influence of Company Performance on Management Board Member Turnover

Theoretical background on management turnover originates from research on company performance and corporate governance mechanisms using the principal-agent theory. The agency theory (Jensen and Meckling, 1976) examines the problems and partial solutions in the principal-agent relationship, in which one party (the principal) delegates decision-making responsibilities to another party (the agent) and compensates it.

According to the agency theory, management turnover is an important instrument of corporate governance. An agency relationship exists when the welfare of one party depends on actions of the other party. In this relationship the agent is the operating party and the principal is the party affected by the agent's actions. The interests of the agent and the principal differ, which means that both parties wish to maximize their benefits (Ross, 1973). Managers that have access to a company's internal information could use it to their own advantage (moral hazard) and their actions might be in contrast with the stockholders' interests of maximizing the value of equity capital. The agent's actions might not be transparent to owners and consequently the stockholders must control managers to protect their own interests. The relationship between a company's expected and realized performance determines the likelihood of management turnover. In the case of a company's unsuccessful performance managers are punished by reduced compensation and dismissal. Fear of dismissal is a form of encouraging managers to improve their results and behave in accordance with the interests of owners (Holmstrom, 1979; Ross, 1973).

Empirical studies show an inverse relation between performance and the possibility of management turnover (Warner et al., 1988; Weisbach, 1988; Jensen and Murphy, 1990; Murphy and Zimmerman, 1993; Denis and Denis, 1995; Lausten, 2000; Brunello et al., 2000; Kaplan, 1994a, 1994b; Kang and Shivadasani, 1995; Renneboog, 2000). However, they do not offer a

general performance measure. Some use stocks' market price, others use companies' financial statements, and some use both. In addition, interesting differences appear in studies regarding the reaction time for management turnover. In countries where the external system of corporate governance is present,[3] managers are replaced because of disappointing current

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[3] Characteristics of the external system of corporate governance include: diversified ownership structure, liquid and developed capital market, protection of minority shareholders, present fear of acquisition and short-term orientation of investors. The external system of corporate governance is present mainly in Great Britain and the United States of America.

performance (Warner et al., 1988; Weisbach, 1988; Kaplan 1994; Franks et al., 2001; Coch and Hughes, 1995), while in countries with an internal system of corporate governance they are replaced because of the disappointing past performance (Kaplan, 1994; Kang and Shivdasani, 1995). Such empirical studies are rare in transition countries but the ones that exist also report on the inverse relation between management turnover and company performance (Gibson, 2003; Eriksson, 2005; REB, 2003; Frydman et al., 2001; Warzynski, 2001; Fidermuc and Fidermuc, 2006).

2.2. Influence of Ownership structure on Management Board Member Turnover

According to Denis et al. (1997), the probability of top management turnover is positively correlated with the size of external ownership. This could be an indicator that external owners are better controllers than internal owners, especially managers. Demsetz (1986) states that management ownership is determined endogenously with the goal of efficient internal control. Management ownership in a company can therefore increase the defensive position of managers in fear of replacement, which is particularly problematic if an incapable manager is in charge. Mikkelson and Partch (1996) and Denis et al. (1997) claim that there is a negative relation between the probability of management turnover and management ownership in a company. The authors also conclude that management susceptibility towards replacement decreases with their increasing ownership share in a company. On the contrary, Weisbach (1988) in his research does not confirm the correlation between these two variables. This can be explained with Jensen's hypothesis (1993) on convergence of interests, which states that management ownership helps with converging the interests of managers and owners. De Angelo and De Angelo (1985) also claim that it is sensible for company ownership to have managers. They see compensating management with a share in company ownership as a good motivational strategy because the management will strive to maximize the interests of owners. Because managers themselves are owners, the agent costs are reduced.

In accordance with different perspectives on the role of managers, we wish to answer the question whether managers and other employees are really less effective owners compared to external owners (investment funds, domestic and foreign non-financial companies and other owners, especially the state). Due to a still significant ownership of internal owners, the discretionary power of managers in Slovenian companies is relatively high (Prašnikar and Gregorič, 2002).

According to international studies, a manager's tenure and age are two key factors in the process of management turnover, in addition to the identity of owners. No uniform results exist in the literature regarding tenure. Some studies claim that there is a negative correlation among the variables (Puffer and Weintrop, 1991; Dennis et al., 1997), while others state that there is no significant correlation (Kim, 1993). In addition, studies show (Jensen and Murphy, 1990; Chevalier and Ellison, 1999; Lausten, 2002; Barro and Barro, 1990) that the probability of management turnover increases with their age, i.e., an older manager is more likely to be

replaced. The reason for replacement in these cases is mostly retirement and not a company's disappointing performance. However, the inclusion of both variables in the model is problematic because the variables are often interconnected. Because of this we will in this article test the influence of tenure on management turnover.

3. DATA AND METHODOLOGY

3.1. Sample Description

Primary and secondary sources of data were used to test hypotheses regarding management turnover factors in Slovenian companies. Primary data were obtained from research that was carried out in companies. The research was organized within the Institute for Southeastern Europe (ISEE) between May and September 2003. Used variables from the research include the share of replaced management board members, ownership structure and management board members' tenure from 1998 to 2002. The survey was sent to 623 Slovenian companies and 211 of them returned completed surveys. Secondary sources of data were obtained from the registry of the Agency of the Republic of Slovenia for Public and Legal Records and Services. The registry includes data on more than 38,000 companies. The entire database required for analysis pooled the data from both sources.

In terms of size, 9.7 percent of companies are considered small companies, 76 percent medium-sized companies and 14.3 percent are large companies. Companies that participated in the 2002 survey on average had 479 employees, which represents 20.1% of all employees in Slovenian companies, and created 19.5 percent of total turnover of all Slovenian companies. Sales growth of an average company in the sample in the studied period was 11 percent.

The ownership share of state funds (Slovenian Restitution Fund and Pension Fund Management) and authorized investment funds in the studied period totaled 28 percent, which equals the ownership share of domestic and foreign legal entities (in the rest of the companies). Internal owners on average had a 23 percent share (Figure P_1 in Appendix).

3.2. Methodology and Hypotheses

The use of panel data at the company level offers several important advantages in studying management turnover. First, it enables the removal of the bias that occurs with pooling data by companies with the goal of assessing a certain model and therefore reduced the measurement error. Second, the analysis encompasses heterogeneity of explanatory variables by companies and through years, which assists in identification of key parameters. On the other hand, sources of data on the company level are often biased in their inclusion (usually it is presented in including larger units) and deficient in types of information they offer. Since a hypothesis on the sample's bias in terms of population in our case has already been tested and

rejected (Knežević Cvelbar, 2006), our analysis will only include the results obtained on the basis of sample data.

The most general form of the model with panel data is represented by the following regression model:

$$y_{it} = \alpha_i + \beta^{'} x_{it} + \varepsilon_{it}$$

where x_{it} includes K regressors. α_i represents an individual effect, which is specific for each specific i-unit and is constant in time t. Having regard to the structure of α_i, various estimation techniques exist. If α_i is the same for all units, the ordinary least squares method (OLS) is an effective estimator. This panel estimating simply combines cross-sectional data and time series and estimates them using the least squares method. If α_i is specific for each individual i-unit and is constant in time t, we refer to a fixed effect model, which is estimated by using the least square dummy variable method (LSDV). When we assume that α_i is random for each i-unit and constant in time t, an alternative method of estimating is a random effect model. In our sample the last method produces the best results in terms of adjusting the regression line to the actual data.

The model derived on the basis of theoretical findings can be expressed as follows:

$$MB\_TURNOVER_{it} = \beta_0 + \beta_1 AIFS_{i,t-1} + \beta_2 STATE\_FUNDS_{i,t-1} + \beta_3 COMPANIES_{i,t-1} +$$
$$+ \beta_4 OTHER_{i,t-1} + \beta_5 SALES_{i,t-1} + \beta_6 \Delta SALES_{it} + \beta_7 TENURE_{it} + \beta_8 YEAR2000$$
$$+ \beta_9 YEAR2001 + \beta_{10} YEAR2002 + v_{it} \tag{1}$$

In equation (1) indexes *i* and *j* represent a company and the year of observation, the variable MB_TURNOVER denotes the share of management turnover in regard to the number of total board members in the current year, the variable AIFS measures the ownership share of authorized investment funds in companies in the previous years, STATE_FUNDS[4] measures the share of state funds ownership, COMPANIES measures the ownership share of domestic and foreign legal entities, and OTHER measures the ownership share of other owners, mainly the state, banks or small stockholders. The OTHER variable does not include the ownership share of internal owners (employees and retirees) that represent the basis for comparison, included in regression constant, i.e., a base group of companies. The SALES variable measures the rate of sales growth in the previous year, and the ΔSALES variable measures the

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[4] Pursuant to the Privatization of Companies Act, external owners entered companies in the form of state funds and authorized investment funds. Although due to nature of ownership creation, we could join both groups into one, it is our opinion that they differ in the management of the owner's key role. While the state funds are under the indirect control of state bodies, authorized investment funds are private companies.

change in the rate of sales growth between the current and previous value[5], TENURE measures the average tenure of a management board member, while YEAR 2000, YEAR 2001 and YEAR 2002 represent dummy variables that reflect the movement of average values of the dependent variable in the studied period. υ_{it} represents the error.

Based on the model we tested the following hypotheses based on the model:

Hypothesis 1– the influence of ownership structure on management turnover:
Companies in which external owners (authorized investment funds, state funds, companies and others) had a larger ownership share, ceteris paribus, on average did not replace more management board members than companies with internal ownership. ($\beta_1 = \beta_2 = \beta_3 = 0$)

Hypothesis 2 – the influence of performance on management turnover:
Companies in which sales growth in the previous year was lower and/or sales decreased, on average replaced more management board members than those in which the sales growth did not decrease or those in which the sales growth in the previous year was higher, ceteris paribus. ($\beta_4 < 0$ and/or $\beta_5 < 0$)

Hypothesis 3 – the influence of tenure on management turnover:
In companies where the tenure of management board members is longer, the rate of replacement is on average
a) higher ($\beta_6 > 0$);
b) lower ($\beta_6 < 0$);
c) equal ($\beta_6 = 0$);
ceteris paribus.

Based on the dependent variable's variability we can conclude that there are two groups in our sample that statistically differ between each other in how the independent variables in the model affect management turnover. Since we wish to test this hypothesis, we upgraded the model by forming two groups of companies, based on the rate of return index[6]: successful and less successful companies. Model (2) can therefore be presented in the following form:

$$MB\_TURNOVER_{it} = \rho_0 + \rho_1 AIFS_{i,t-1} + \rho_2 STATE\_FUNDS_{i,t-1} + \rho_3 COMPANIES_{i,t-1} +$$
$$+ \rho_4 OTHER_{i,t-1} + \rho_5 AIFS * SUCCESSFUL\_C_{i,t-1} + \rho_6 STATE\_FUNDS * SUCCESSFUL\_C_{i,t-1} +$$
$$+ \rho_7 COMPANIES * SUCCESSFUL\_C_{i,t-1} + \rho_8 OTHER_{i,t-1} * SUCCESSFUL\_C + \rho_9 SALES_{i,t-1} +$$

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[5] Level of sales growth in our equation explains the influence of good performance on management turnover. According to the previous analysis, compared to financial indexes this index is most successful in explaining variability in the dependent variable, i.e., the share of management turnover.

[6] Separating companies into two groups has to be performed based on a variable that is not correlated with explanatory variables in the main evaluation equation. Based on additional statistical analyses we have determined that among all variables measuring company performance, the return on assets fulfills this requirement.

$$+ \rho_{10}\Delta SALES_{it} + \rho_{11}SALES * SUCCESSFUL\_C_{i,t-1} + \rho_{12}\Delta SALES * SUCCESSFUL\_C_{it} +$$
$$+ \rho_{13}TENURE_{it} + \rho_{14}TENURE_{it} * SUCCESSFUL\_C + \rho_{15}YEAR200 + \rho_{16}YEAR2001 +$$
$$+ \rho_{17}YEAR2002 + v_{it} \qquad (2)$$

SUCCESSFUL_P represents a dummy variable, the value of which is 1 if return on assets is above the average value of all companies, and 0 if return on assets is below the average. The presented specification allows us to test the influence of independent variables in both groups of companies, in addition to differences in the average value of management turnover in the sample companies. The following hypotheses will be tested based on the model:

Hypothesis 1a:
In successful companies where external owners (authorized investment funds, state funds, companies and others) had a larger ownership share, ceteris paribus, on average did not replace more management board members than companies with internal ownership. ($\rho_1 + \rho_4 = \rho_2 + \rho_5 = \rho_3 + \rho_6 = 0$)

Hypothesis 1b:

Less successful companies where external owners (authorized investment funds, state funds, companies and others) had a larger ownership share, ceteris paribus, on average did not have higher management turnover than companies with internal ownership. ($\rho_1 > 0$ and/or $\rho_2 > 0$ and/or $\rho_3 > 0$)

Hypothesis 2a:
Successful companies that in the previous year experienced lower sales growth or the change in the rate of sales growth was lower, on average replaced more management board members than companies within the same group with a higher rate of sales growth or higher change in the rate of sales growth, ceteris paribus.. ($\rho_7 + \rho_9 < 0$ and/or $\rho_8 + \rho_{10} < 0$)

Hypothesis 2b:
Less successful companies that in the previous year experienced lower sales growth or lower change in sales growth, on average replaced more management board members than companies within the same group with a higher rate or change in the rate of sales growth, ceteris paribus. $\rho_7 < 0$ and/or $\rho_8 < 0$

Hypothesis 3a:
In successful companies where the tenure of management board members in a company is longer, the rate of management turnover is on average equal than in other companies in other companies within the same group, ceteris paribus. ($\rho_{11} + \rho_{12} = 0$)

Hypothesis 3b:

In less successful companies where the tenure of management board members in a company is longer, the rate of management turnover is on average higher than in other companies within the same group, ceteris paribus. ($\rho_{11} > 0$)

4. CHARACTERISTICS OF SLOVENIAN MANAGEMENT BOARD MEMBERS

Before we present the results of regression analysis let us shortly describe the characteristics of Slovenian managers. Slovenian companies on average have two board members, in addition to the board president. The share of management board members turnover for the 1998–2002 period was on average 20 percent. This percentage is higher than the percentage of replaced

management board members in Germany and lower than the percentage of replaced management board members in the Czech Republic. Franks and Mayer (2001) showed on the sample of 75 German companies between 1989 and 1994 that the share of replaced management board members was 11.2 percent. Claessens and Djankov (1999) showed on the sample of 706 Czech companies between 1993 and 1997 that the turnover percentage in companies in private ownership was 35.6 percent and 42.1 percent in state-owned companies. As presented in Table 1, a management board member is on average 47.7 years old, has been in his position approximately nine years and have the tenure of almost 15 years. The share of management turnover increased significantly after 2000, causes for which can be found in the change of ownership structure, the replacement of the so called old boys who came into their positions during r after the ownership process was completed. In addition, the four-year mandate of management boards that took their positions in 1996 (after the completed process of ownership transformation) expired in 2000.

Table 1: Level and characteristics of management turnover in Slovenia in the 1998–2002 period

YEAR	TURNOVER LEVEL	NUMBER OF YEARS IN POSITION	TENURE	AGE	TURNOVER OF ENTIRE MANAGEMENT	THE SIZE OF MANAGEMENT
1998	**14.8[7]****	10.0	15.7	48.2	2.6	1.9
	(7.9)[8]	(7.8)	(9.2)	(7.1)	(15.9)	(1.6)
1999	**17.1****	9.5	15.3	47.9	6.0	1.9
	(5.3)	(7.5)	(9.2)	(7.2)	(23.8)	(1.6)
2000	**12.3****	9.2	14.7	47.6	6.6	1.9
	(3.7)	(7.2)	(9.1)	(6.9)	(25.0)	(1.5)
2001	**28.0****	9.4	14.8	47.6	8.2	2.3
	(7.2)	(7.1)	(9)	(6.9)	(27.5)	(1.9)
2002	**26.1****	9.0	13.8	47.4	8.5	2.3
	(5.3)	(6.8)	(9.3)	(7.5)	(28.0)	(1.9)
Average	19.7	9.4	14.7	47.7	6.8	2.1
	(6.1)	(7.2)	(9.2)	(7.1)	(25.2)	(1.7)

Note: **Differences are significant at 5% (variance analysis with Duncan's method).
Source: ISEE research (2003) and own calculations.

In analyzing management turnover we can distinguish between the forced and unforced replacement. The following reasons are considered in forced replacement: disappointing performance results, the board's dissatisfaction with a board member and other reasons. In the 1998–2002 period, 43 percent of all board members were replaced in Slovenia due to forced

reasons. This share is higher than in other developed countries, where approximately 30 percent of managers are replaced due to forced reasons. As can be seen in Figure 1, there are various reasons for management turnover during the studied period. The largest share of forced replacements occurred in 1998 (out of 14.8 percent of all replaced board members, 8.2 percent were replaced due to their companies' disappointing results). The number of board members who leave their position due to retirement or changing positions has been rising since 2000. In 2001 there was an above-average increase in the share of replacements due to other reasons (literature considers replacement of managers for other reasons as forced replacement).

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[7] Average value
[8] Standard deviation
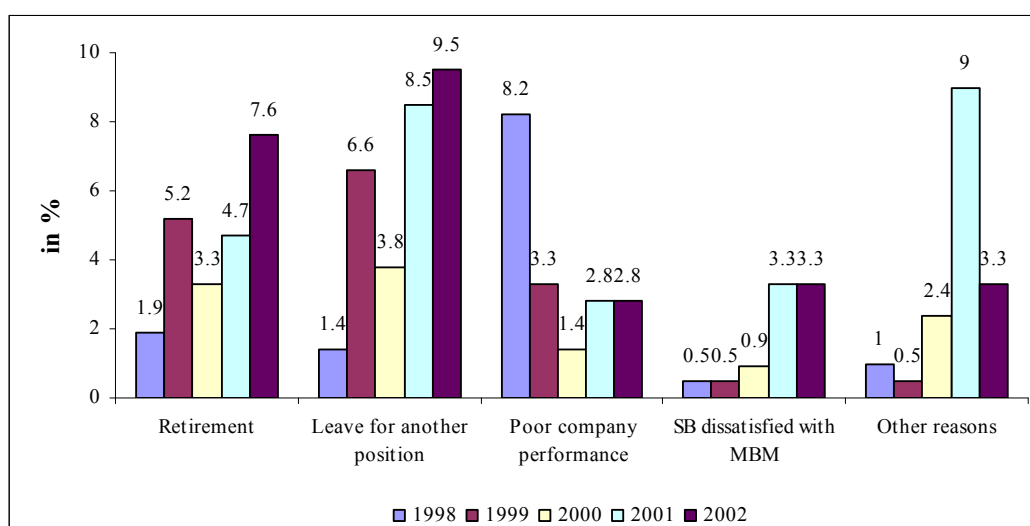
Figure 1: Reasons for management turnover in the 1998–2002 period
Source: ISEE research (2003) and own calculations.

5. RESULTS

We continue by presenting the results of the regression analysis. Based on the estimates of regression coefficients presented in Tables 2 and 3[9] we can conclude that on average in period t significant turnovers did not occur in companies where external owners had a larger ownership share in period (t-1), *ceteris paribus*, which confirms the correctness of hypothesis 1. This effect is not statistically significant even for companies with lower performance results, which indicates that we can reject hypothesis 1b. Less successful companies with a higher share of external ownership on average did not replace more managers compared to the companies with a higher share of internal owners, *ceteris paribus*. On the other hand, a positive effect on management turnover is present in case of a larger share of other external owners in successful

companies, which is surprising. This means that the **number of replaced managers in successful companies in case of a larger ownership share held by "other owners"**, in which **the state was the largest owner**, is on average higher than in companies from the same group with a larger share of internal owners, *ceteris paribus*.

As expected, performance had a negative impact on the share of replaced managers. In the companies where sales growth was lower than expected, a larger number of managers was replaced compared to companies in which sales growth was better than expected (column 2 in Table 3). This means that we can confirm hypothesis 2. Our forecasts can also be confirmed in both groups of companies. In both groups the variability in performance statistically significantly explained the variability in the number of turnovers (hypothesis 2a and 2b are confirmed).

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[9] Table 2 presents the assessments of regression coefficients obtained based on specification (3) and calculated by using formulas presented in the methodology part.

The variable that measures the manager's average **tenure in a company, statistically insignificantly explains the number of replaced managers in the entire sample** (hypothesis 3 is rejected). The mentioned connection in both groups of companies becomes even more insignificant. We can therefore confirm hypothesis 3a and reject hypothesis 3b.

Table 2: Regression coefficients assessment in models (1) and (2)

Dependent variable: Share of replaced management in year t	Assessment of regression coefficients in model (1)	Assessment of regression coefficients in model (2)
Ownership structure		
Investment funds $_{t-1}$	-0.005 (0.151)	0.264 (0.169)
State funds $_{t-1}$	-0.212 (0.158)	-0.151 (0.103)
Companies $_{t-1}$	-0.025 (0.076)	-0.031 (0.044)
Other $_{t-1}$	0.129 (0.110)	-0.066 (0.610)
Investment funds $_{t-1}$ in successful companies	/	**-0.524** [c] (0.610)
State funds $_{t-1}$ in successful companies	/	-0.115 (0.355)
Companies $_{t-1}$ in successful companies	/	0.018 (0.128)
Other owners $_{t-1}$ in successful companies	/	**0.563** [a] (0.201)
Business Performance		
Sales growth $_{t-1}$	**-0.178** [b] (0.047)	**-0.238** [c] (0.128)
Sales growth $_t$ – Sales growth $_{t-1}$	-0.065 (0.063)	**-0.179** [c] (0.102)
Sales growth $_{t-1}$ in successful companies	/	0.049 (0.170)
(Sales growth $_t$ – sales growth $_{t-1}$) in successful companies	/	0.162 (0.130)
Management characteristics		
Years of employment in a company $_t$	0.492 (0.248)	0.405 (0.395)
Years of employment in successful companies $_t$	/	0.140 (0.464)
2000	-0.015 (0.076)	-0.023 (0.076)
2001	0.058 (0.076)	0.072 (0.073)
2002	0.025 (0.072)	0.048 (0.072)
Constant	0.065 (0.073)	0.045 (0.074)
Number of observations	228	228
Number of groups	108	108
R^2	0.051	0.101

Note: (a), (b) and (c) represent statistical significant of coefficients for the level of risk of 1%, 5% and 10%.
Source: ISEE research (2003) and own calculations.

Table 3: Regression coefficients assessment for successful and less successful companies, evaluated on the basis of model (2)

Dependent variable: Share of replaced management in year t		
Group of companies	Less successful companies	Successful companies
Ownership structure		
Investment funds $_{t-1}$	0.265 (0.192)	-0.260 (0.235)
State funds $_{t-1}$	-0.151 (0.183)	-0.267 (0.309)
Companies $_{t-1}$	-0.031 (0.109)	-0.012 (0.093)
Other $_{t-1}$	-0.066 (0.127)	**0.497[a]** (0.177)
Sales growth $_{t-1}$	**-0.239 [c]** (0.129)	**-0.189 [c]** (0.111)
Sales growth $_t$ – Sales growth $_{t-1}$	**-0.179[c]** (0.102)	-0.016 (0.080)
Years of employment in a company $_t$	0.405 (0.395)	0.545 (0.435)

Note: (a), (b) and (c) represent statistical significant of coefficients for the level of risk of 1%, 5% and 10%.
Source: ISEE research (2003) and own calculations.

6. CONCLUSIONS

Our analysis of management turnover covers the period between 1998 and 2002, when Slovenian companies executed their privatization programs and became owned mainly by employees and former employees as internal owners and state funds, authorized investment firms, and domestic

and foreign companies as external owners. In some companies the state has retained the ownership share that it had before privatization, while in some it was present through the Development Fund.[10] During this period the main owners consolidated their ownership shares, often by colluding, which was characterized mainly by block trading. This was typical for state funds and authorized investment firms, which in this way concentrated their ownership share in selected companies. "Their" companies often acted as acquirers of other companies. On the other hand, internal owners (employees, managers) followed their interests, which differed according to whether a company was successful or less successful (Prašnikar and Gregorič, 2002). In the former ones they emphasized their ownership role while in the latter they acted as rent-seeking shareholders (employeeism). Companies restructured strategically, especially the export-oriented ones, which were forced into the restructuring by competition (Domadenik, Prašnikar and Svejnar, 2006; Prašnikar et al., 2003).

Management turnover is present as a corporate governance mechanism; however, to a limited extent. In less successful companies the management is replaced sooner. There are no significant differences between external and internal owners in terms of management turnover and nobody is established as a more active owner. The turnover is likely to happen when dominant owners agree on it. The turnover occurs sooner if sales growth decreases. Financial

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[10] Established in 1991 to facilitate faster restructuring of companies.

indexes are less important in the decision making. Tenure in a company does not play a major role. It is important to mention that larger management turnovers in more successful companies are connected with the larger state's ownership share. The Development Fund was mainly responsible for these turnovers.

Despite the results achieved by Slovenian companies, it is not likely that the described method of governance can be sustainable in the long run.

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APPENDIX

APPENDIX 1: Ownership structure in the 1998–2002 period.
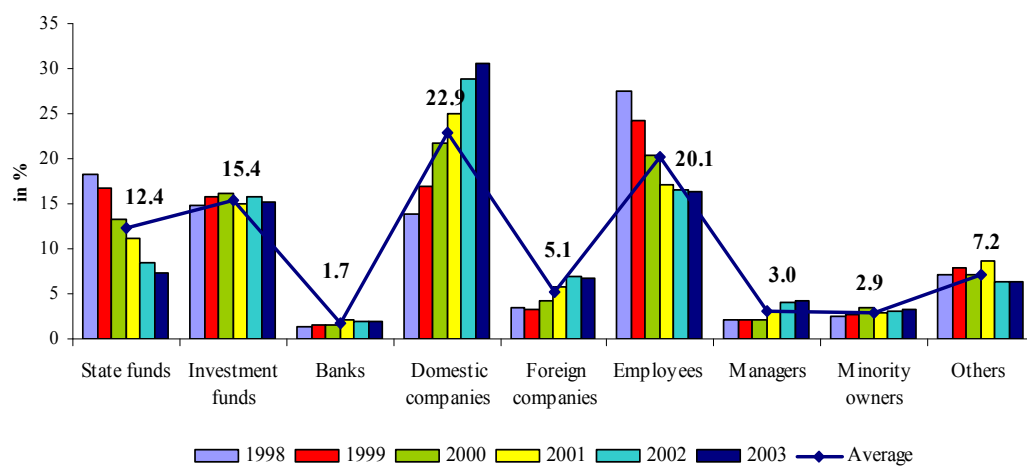
Source: ISEE research, 2003.

ETHICS AS A DIMENSION OF QUALITY AND SOCIAL RESPONSIBILITY – CASE OF TOURISM AND BUSINESS EDUCATION IN CROATIA

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1. INTRODUCTION

During the past two decades Croatia has gone through radical political, economic and social change. These changes have also strongly affected value systems, among them particularly ethical values. As many new ethical questions occur, companies are becoming increasingly aware of the importance of their ethical behavior and their social responsibility.

The purpose of this paper is to examine the ethics and social responsibility as dimensions of a company's quality as a whole. University experience has a long-term impact on the development of students' values and business universities are educating future business leaders. Therefore, the paper also presents the results of a study performed among tourism business students and shows their understanding of academic integrity and ethical behavior.

2. ETHICS, SOCIAL RESPONSIBILITY AND QUALITY – ARE THEY RELATED?

Quality can be defined in various ways, but all definitions agree that 'quality is something good'. Quality is a complex concept, consisting of several criteria, elements and dimensions, depending on the concept, object, phenomenon or activity that a particular quality refers to. Defining the quality of something or somebody implies getting well acquainted with that something or somebody prior to outlining all the quality elements that form the quality cluster or its total quality.

Society is an extremely complex system that encompasses many subsystems and social phenomena (culture, politics, education, business, etc.) and defining its quality is a very

challenging task. A corporation can be viewed as one of society's subsystem whose quality ultimately determines the quality of the society in which it operates.

According to Ulrich (1970) corporations are dynamic, purpose and goal-oriented, autonomous, productive, open, social systems, placed in a complex, dynamic environment. To begin with – corporations are open systems: they interact with their environment and take part in exchange processes that are of either material or information nature. Corporations are social systems since they are a part of human society as a whole for whom they perform different functions, and on the other side as a group of people they represent a 'society' as themselves. While acting as social systems, corporations do not have a purpose of their own and can survive only if performing different functions for other systems (Ulrich, 1970). In order to enable such functioning persons in charge of management should consider carefully their environment and recognize in it purposes for their corporations. Those purposes are actually *expectation inputs* for the corporation.

The European Foundation for Quality Management (EFQM) provides a model of business excellence that clearly shows that business performance should be evaluated with reference not only to profit but also to the community. For instance, 6% of the total points accounts for 'social results' i.e. social responsibility.
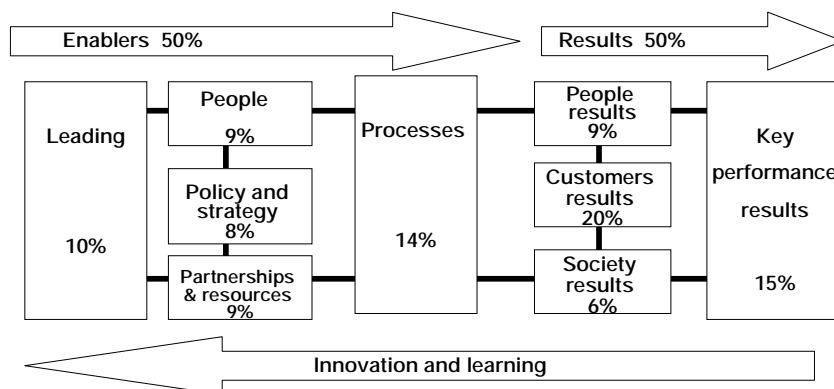
Figure 1.   *EFQM Business Excellence Model* (EFQM, 1999)

A view that business has only one social responsibility and that is to maximize the profits of its owners has long been abandoned. Companies are required to balance their social power with social responsibility and act as a kind of social institution. "Carrol (1979) suggests that corporate social responsibility is defined as the economic, legal, ethical and discretionary demands that society places on business. Similarly, Zanies conceptualized corporate social responsibility as a degree of 'fit' between *society's expectations of business* and *the ethics of business*." (Balabanis G., Phillips H.C., Lyall, J., 1998)

Aspects of social responsibility and ethics are best illustrated by the following figure.
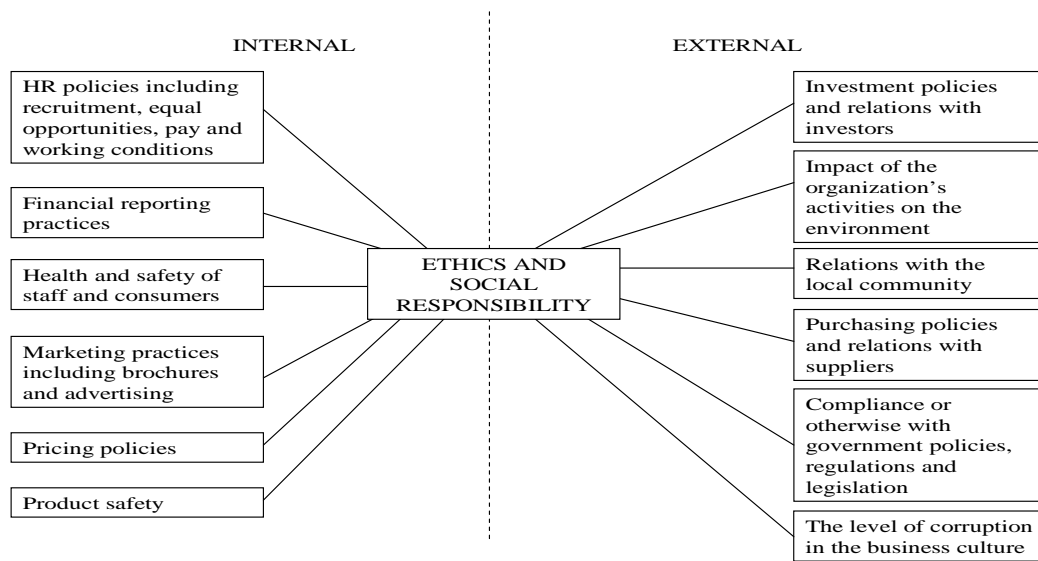
Figure 2. *Aspects of ethics and social responsibility* (Horner, Swarbrooke, 1996)

Although ethics and social responsibility are closely related, one should clearly differentiate between them. According to Epstein (1987) business ethics refers to issues and dilemmas related to the morality of organizational actions or decisions. Corporate social responsibility focuses more on the consequences of organizational actions (Balabanis G., Philips H.C., Lyall, J., 1998).

3. TOURISM AND ETHICS

Tourism is an important social phenomenon, exerting great influence on society. The number of tourist today is nearing one billion, as every sixth inhabitant of the globe is classified as a tourist, and together they are often referred to as 'the traveling humanity'. Ethics in tourism influences the overall quality of a society.

Ethics is a component of quality to be attained only within the long-term perspective, in accordance with the principles of the total quality management system. The short-term goal of 'profit at any cost' carries the risk of low quality, which can result in company failure and finally in unemployment. The training of tourism managers focuses mainly on economics and foreign languages and lacks focus on morality and ethics. "Ethics is, after all, a branch of moral philosophy, and knowledge of moral philosophy is hardly on any manager's list of critical business competencies. Thus, when managers find themselves in an ethical dilemma, they turn to what they know best – financial figures, performance data, customer counts, occupancy rates, labor costs, and so forth." (Hall, 1992) However, honesty should be an integral part of the manager's personality, something taken for granted, and should be reflected both in his day-to-day decisions and in his behavior not only towards his employees and business partners, but also towards his family and society as a whole (Avelini, 2006). Ethics does not limit the opportunities for profit in tourism – quite opposite: ethics and profit are compatible.

The Global Code of Ethics for Tourism (WTO, 1999) provides a frame for deploying ethics in all tourism-related activities. The Code consists of ten principles and rules for work and

behavior of all tourism stakeholders: Tourism's contribution to mutual understanding and respect between peoples and societies; Tourism as a vehicle for individual and collective fulfillment; Tourism, a factor of sustainable development; Tourism, a user of the cultural heritage of mankind and contributor to its enhancement; Tourism, a beneficial activity for host countries and communities; Obligations of stakeholders in tourism development; Right to tourism; Liberty of tourism movements; Right of the workers and entrepreneurs in the tourism industry; Implementation of the principles of the Global Code of Ethics for Tourism

4. BUSINESS EDUCATION AND ETHICS

Education and business have grown increasingly close during the past two decades. It has been realized that there is a convergence of interest between them and the links have become more frequent displaying a depth of commitment.

University experience has a long-term impact on the development of students' values (Allen et al., 2005) and business schools are training future business leaders. That's why the issues of ethics and ethical perceptions of business students ought to get more attention. Both organizational culture of business studies and university professors and instructors significantly influence business students' perceptions of the importance of ethical values. Business educators have a responsibility to contribute in any way they can to the ethical development of their students.

However, students' values do not develop exclusively through education – they are partly inherent from other experiences and early development. Educational institutions cannot accomplish the mission alone. Experiences of student prior to enrolment are strong determinants of the value systems they will hold and apply over their lifetimes. Education serves to reinforce existing positive values and encourage their application. Early education experiences and family influences are going to have the most critical impacts on the integrity of future business leaders and their willingness and ability to be value driven (Bishop, 1992, in: Farnsworth, Kleiner, 2003).

To address emerging ethical problems and promote ethical behavior in business, many universities are requiring their students to take a course in ethics or are requiring that ethics be included as a part of business courses. A business ethics course that is required of all business schools sends a powerful message: a top priority at this school is for all students to know and follow generally accepted rules of business (Farnsworth, Kleiner, 2003).

The goal of ethics courses in business ought not to explicitly seek behavioral changes in students. Rather, they should seek to assist students in the development of those insights, skills and perspectives that set the stage for a life of personal moral responsibility, manifesting careful and serious moral reflection (Poytner, Thomas, 1994).

4.1. Methodology

The purpose of this paper was to determine students' understanding and attitudes towards academic ethical behavior. Of special interest were also discrepancies between their understanding of ethical behavior an their actual behavior. The university student population has become used to seeing unethical behavior on the part of many role models, and

academicians also feel that students, and business students in particular, no longer show a disinclination toward cheating and academic dishonesty (Kidwell, 2001, in: Peppas, Diskin, 2001).

The sample and instrument
The sample used in this study consisted of students (both two and four years study programs) in a large public Faculty in Croatia that educates students for tourism and hospitality management. A total of 661 usable responses were obtained.

The survey instrument included a demographic information section and a section consisting of questions determining understanding of ethical behavior and students' actual behavior.
The demographic section gathered information on sex, previous education, year of study and whether respondents are familiar with University's Codes of Ethics.

Data collection procedures
The questionnaires were distributed during the last week of November 2005 to all students at randomly selected lectures at each year of study. Of the total 2.952 students, 661 students completed the questionnaire, representing a 22% response rate.

4.2. Data Analysis

The analysis was conducted using SPSS for Windows, version 11.0.

Of the 661 respondents 461 (69.7%) were female and 200 (30.3%) male students. 56% of students have previously finished four-year secondary school; 33.9% a grammar school; and 9.8%, a three-year secondary school.

Table 1 shows the structure of students based on their year of study.

Table 1. Structure of students in the sample regarding year of study

Year of study	Number of students	Structure (in %)
First	304	46
Second	133	20.1
Third	132	20
Forth	90	13.6
No answer	2	0.3
Total:	661	100

The degree of familiarity with the contents of University's Codes of Ethics is rather low – only 40.4% of students are aware of its existence and content.

When asked whether they consider themselves to be an ethical person, as many as 90% of students answered positive.

In the following part of the questionnaire the most widespread (un)ethical behaviors were described and students were asked to classify them either as ethical or unethical. The following table shows the results.

Table 2. Students' understanding of ethical and unethical behaviors

Do you consider the following behaviors to be ethical?	YES (%)	NO (%)	Missing value (%)
Cribbing from fellow student (CRIB)	35.9	62.9	1.2
Use of non-allowed materials (e.g. books, notes, …) during the exam (MAT)	39.0	59.6	1.4
Prompting during the exam (PRO)	50.2	48.6	1.2
Use of mobile phones during the exam (MOB)	19.2	79.4	1.4
Copying of books and articles without publishers'/ authors' permission (COP)	52.5	46.1	1.4
Plagiarizing – using of other persons' papers (e.g. seminars, presentations) as own (PL1)	14.4	84.4	1.2
Plagiarizing – using of bibliographic units (e.g. books, articles, web sources,…) without stating the source (PL2)	32.4	65.4	2.3

Students were than asked to rate how often they practice each of the previously mentioned types of behavior. The results were somewhat disappointing and are shown in the table 3.

Table 3. Frequency of students' unethical actions (in %)

How often do you…*	Never	Rarely	Occasionally	Often	Always
CRIB	9.7	35.6	37.5	11.5	5.4
MAT	12.1	27.7	39.0	14.5	6.4
PRO	8.8	24.1	36.3	20.3	10.1
MOB	79.4	10.6	4.8	2.9	1.4
COP	13.6	12.9	21.5	31.2	20.6
PL1	83.8	9.8	3.8	0.8	1.4
PL2	41.5	30.0	17.5	8.2	2.3

(*) descriptions of variables (behaviors) are given in the table 2

In spite of the fact that they consider themselves to be ethical, only a very small percent of students has never committed any of the described unethical actions. The positive exceptions are 'using a mobile phone' and both kinds of plagiarizing.

One of the reasons that led to these results is definitely the fact that unethical actions are not sanctioned. Students also realize this: they claim that unethical behavior is not sanctioned at all (27.5%) or not sanctioned enough (34.2%). At the same time they believe that more rigorously enforced sanctions would not lead to a decrease in the frequencies of unethical behavior – only 53.6% believe that this would help.

Although unethical behaviors are practiced very often, only 29.5% were caught in the very act. Surprisingly, most of them did not bear any consequences (39.6%) or were only personally (10.3%) or publicly (10%) warned. Only 5.5% of them were temporarily expelled from the education process (exam, lectures,…).

While being extremely uncritical towards themselves, students are very critical towards their fellow students. Only 12.1% of students consider *all their colleagues to be ethical* while others believe that *some of their colleagues are unethical* (54.6%) or that *most of their colleagues are unethical* (26.6%) i.e. that *all of them are unethical* (3.5%).

Distorted understanding of severity and consequences of unethical behavior are also reflected in the fact that even 90.5% of students would **not** report the unethical fellow student.

Since the problem of copying from books and articles without permission was recognized as especially numerous and severe (only 13.6% of students never copied unauthorized and 51.8% of them do it either *often* or *always*) students were offered answers as to why do they behave in unethical way. Multiple answers were allowed.

Table 4. Reasons behind unauthorized copying of learning materials (books, articles, …)

Statement: I copy the books/articles because…	% of students
… they are not available to buy.	31.2
… I cannot afford to buy them.	52.6
… I cannot lend them from the library.	30.6
… I am not used to buying them.	12.6
… except for passing the exam they are useless.	31.8

Gender differences.

93% of women as opposite to 85% of men consider themselves to be ethical. This self assessment was corroborated through questions regarding existence and frequencies of unethical behaviors. The percentage of men and women who answered that they have never committed the described unethical actions is shown in the following figure.
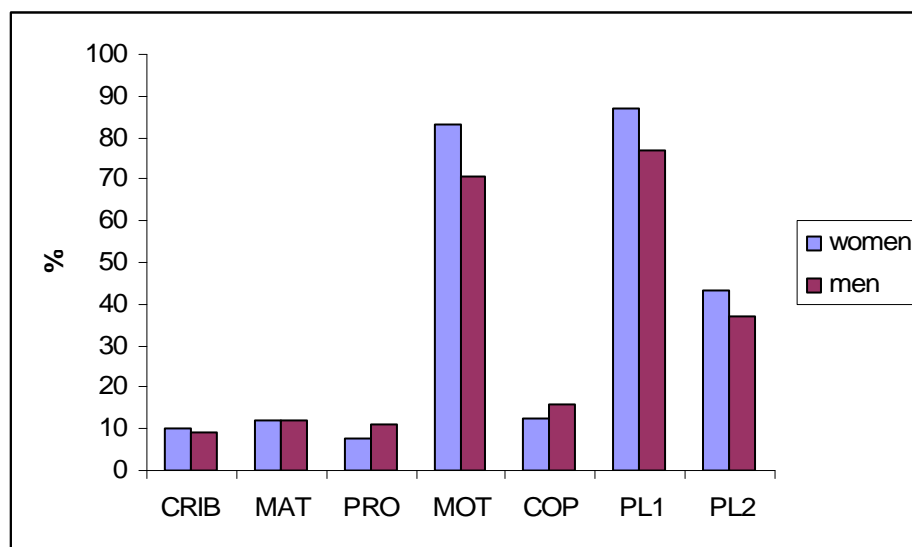
Figure 3. Comparison of female and male students who never act unethically (descriptions of variables i.e. behavior are given in the table 2)

Given that male and female students receive similar educations it would be reasonable to expect that their perception of ethical behavior would be similar. However, research does not support this presumption. Gender studies suggest that women are more ethical than men (Allen et al., 2005).

Previous education did not cause any significant differences regarding unethical behavior.

Year of study.

If we observe the year of study as a determinant of an increased degree of students' maturity and, in the same context, the students' behavior as a consequence of their exposure to university's (and its members') high ethical values, the condition can be seen as positive.
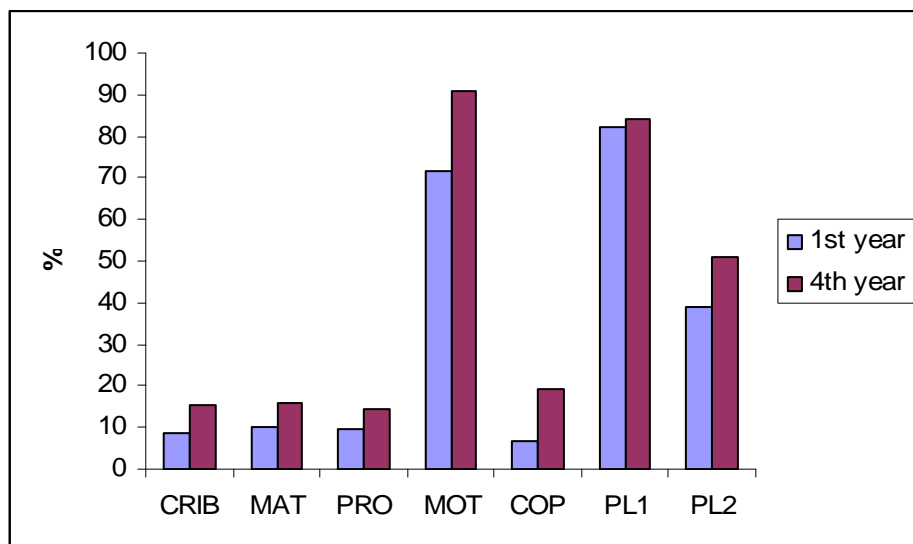
Figure 4. Comparison of first and fourth year students who never act unethically (descriptions of variables i.e. behavior are given in the table 2)

Namely, the differences between first year and forth year students and their (un)ethical behavior have proven to be significant. Unethical behavior is occurring less frequently in higher study years. Figure 4 shows the comparison between the first and fourth (last) year of study program and the percentage of students who *never* act unethical.

5. CONCLUSION

Both ethics and social responsibility play a major role in the future economic development and business culture in Croatia. Society's opinion regarding corporations is becoming more and more critical. Every corporation's negative activity is judged critically by the public.

The presence of a code of ethics does not make people and students moral. With or without the presence of a code of ethics, one needs to ask oneself whether actions being taken are lawful, moral and in line with one's character and personal codes. Lectures, discussion groups, seminars can however help change and improve students' ethical sensitivity and morality.

Universities must take a critical look at their role in the ethical development of future business leaders and assume a leadership role in addressing society's concerns for conscientious business decision-making and actions (Farnsworth, Kleiner, 2003).

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ENVIRONMENTAL LAWS IN CROATIA: STRATEGIC AND ETHICAL IMPLICATIONS FOR THE BEER INDUSTRY

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Due to a strict legislation and the concept of corporate social responsibility, since late 1980s, the environmental "issues" of packaging have been treated as a significant part of contemporary strategies in all relevant industries worldwide. Striving to adjust its legislation to positive EU standards, Croatia recently introduced new environmental laws. One of the laws - the Regulation on packaging and packaging waste, introduced in 2005 attracted significant media coverage and certain resistance among some key stakeholders within related industries. The abovementioned law introduced a set of environmental protection fees and a deposit for containers for beverages and liquid diary products, along with the implementation of a new national collecting and recycling system. Nevertheless, the new legislation increased costs and opened the "Pandora's box" of ethical issues related to the subsequent price increases. Although the law itself has been used as a justification for increased retail prices, all related industries, except the beer industry, were opposed to the implementation of the law. They perceived it as an unnecessary obstacle in price-sensitive B2C environment.
The purpose of this paper is to analyze Croatian experience(s) and influence of the environmental laws to both - the economic effects and the social responsibility of related industries.

Key words: *packaging, environment, beer industry, Croatia*

1. PACKAGING AND ENVIRONMENT – NEW EMERGING CONCEPT(S) OF PACKAGING

The key role(s) of modern packaging: product protection; marketing communication; operational/handling convenience (see: Prandergast & Pitt, 1996; Taylor, 2004; Ampuero & Vily, 2006) are reversibly derived from various impacts related to consumers/end users, producers, processors, bottlers, marketers, supply chain intermediaries, etc. But, the

abovementioned is often analyzed only through "virgin" concept of packaging – without complicated follow-up environmental/recycling procedures and practices. In addition, packaging is often considered as "unwanted" waste after the product is once used. Although the "business aspects" of related environmental issues have been in the research focus since 1960s (Daisley, 1963), until late 1970s the research activities were provided/sponsored mostly by various environment-protection organizations/NGOs worldwide (e. g. Greenpeace). Since late 1970s, the packaging environmental issues could be considered as some of the very important mainstream research topics in the fields of: product development; supply chains/distribution channels and corporate social responsibility (Anderson & Brodin, 2005). Within the European Union (EU), the environmental issues related to packaging were regulated by the European Community (EC) packaging directive accepted in 1994 (Rundth, 2005). The purpose of the directive was to minimize the negative impact of packaging on the environment by recovery, recycling or by the utilization of returnable packaging. Various studies indicated that the usage of returnable packaging results with lower energy consumption and the preservation of precious natural resources (Selke, 1994). The EC directive has stipulated precise quotas for the recycling and recovery of particular packaging materials for all the member countries. It seems that EU industry showed high level of positive awareness for the "new" environmental legislation (Prendergast, 1995). However, in spite of the increasing legal and social pressures related to packaging (through package reduction, recycling or reuse), there are less researches oriented towards sales/marketing issues related to environmental aspects of packaging (Prendergast & Pitt, 1996).

Contemporary social responsibility ideas/concepts/initiatives (developed mostly within local communities), eventually, resulted with environmentally responsible B2C consumers. Through last few decades, many consumers were interested in issues related to their role in environment protection. Therefore, one of the important components of their buying decision-making process is the (perceived) interdependence of environment protection and their decisions regarding packaging of the products they purchase and use (Laroche, Bergeron & Barbaro-Forleo, 2001). Immediately, some marketers detected opportunities transformed in specific market niches or possibilities for market (re)positioning. D'Soutza (2004) analyzed how the growing *green consumerism* has made manufacturers and marketers aware of the possible use of *green* attributes as a marketing tool in standard STP (segmenting, targeting & positioning) process. Recent researches indicate increasing number of consumers willing to pay more for environmentally friendly products (Laroche, Bergeron & Barbaro-Forleo, 2001). This resulted with the environmentally friendly type of packaging/packaging materials that are, nowadays, relatively important diversification attributes for marketing communications aimed at the environmentally conscience consumer. Furthermore, the consumer's role has changed due to recycling, giving the households more active role of physical suppliers for the recycling industry/facilities (Anderson and Brodin, 2005). Therefore, consumers could be treated as an important component (link) within the classical supply chain – due to a fact that the classic concept of B2C "end users" is now challenged with the existence of additional subjects that provide recycling/reusing services (playing the role of new "end users").

Environmental consciousness requires/should be based upon sufficient level of information regarding the specific issue(s). Unfortunately, producers and consumers do not necessary express the same level of interest and involvement regarding the product packaging issues since their ethical sensitivity, values, (industry) norms and perceived consequences differ (Bone & Corey, 2000). In other words - different objectives lead to different behaviour.

It can be concluded that environmental impact of packaging became significant concern for governments, businesses and consumers – creating the new set of key stakeholders and processes.

2. ENVIRONMENTAL LAWS AND PACKAGING IN CROATIA: MARKETING CHALLENGES

2.1. Recent historical context

Institutionalized/official collection of few types of materials and their recycling, in limited form, existed in Croatia since 1950s with organized collection of metals, paper, glass, and other materials (Buljan, 1986). It was result of initiatives started up by several state-owned companies reprocessing collected materials. With the exception of primary and secondary education system, there were no systematic and permanent activities conducted in order to educate and stimulate general population to perceive recycling as important and useful social activity. However, significant proportion of glass and metal containers for food and beverage products was reused in households for various purposes (such as: preserving home-made food, wine, brandy; planting flowers and vegetables, etc.). By the late 1980s, first containers for the collection of used glass appeared, but the whole system collapsed in 1991 when more-less intensive war clashes (1991-1995) took place in Croatia and (later) in Bosnia and Herzegovina.

The activities resumed in the mid 1990s with the introduction of new environmental laws. One of the first legal acts referred to the packaging waste was the *Regulation on packaging waste treatment* (1996) which was introduced in order to reduce the packaging waste. According to the Regulation, the industry (e.g. bottlers, importers, etc.) became responsible for the collection of packaging waste. They were also supposed to install vast number of recycling containers in the retail outlets and public area, and provide recycling and recovery of collected waste. This provided a legislative framework and the industry was supposed to determine the details of the recycling system. The Regulation also introduced mandatory penalties for those who will not comply with the new rules. Unfortunately, it was mostly ignored by the industry and was even mistreated by the government itself (!), so it failed to achieve the expected goals.

Because of the problems related to implementation of relevant legislation, some partial solutions were introduced as substitute(s) of proper national system. Since the mid 1990s the separate collection of packaging waste in Croatia was organised on more-less voluntarily basis. This "back-up" system was based on a network of poorly dispersed recycling containers managed by the municipal companies. The distribution of recycling containers depended on the wealth of the local communities which resulted with better coverage in more developed urban areas while less developed and rural areas were neglected. Beside traditionally present glass and paper recycling facilities, collection of PET (polyethylene terephthalate) initiated development of rudimental PET recycling activities but also resulted with a significant export of non-processed PET waste to China. Since there was no nationwide recycling initiative introduced, recycling rates were (and still are) bellow EU requirements. According to experts representing packaging industry, the recycling rates in 2005 were at 19% for glass and approximately at 5% for PET while the recycling rate of multilayer (carton) packaging is negligible.

2.2 Croatian reflections on environmental laws

As part of a harmonization of the legal system with the EU, Croatia recently introduced a number of environmental laws based on European Community (EC) directive 94/62/EC and its amendments 2004/12/EC and 2005/20/EC. After the initial failure in the 1990s, the situation dramatically changed with the introduction of the new Regulations on packaging and packaging waste (2005) which set up a new packaging recycling and recovery deposit system managed by the specialized government agency. Although the introduction of new Regulations was planned for October 1, 2005, due to many negative reactions from the relevant industries and professional associations, the implementation was postponed until December 1, 2005.

Simultaneously, industry (i.e. mostly bottlers and few importers) formed an association called EKO-OZRA[1] with the intention to stop or further delay the introduction of the Regulations with the implementation of a new industry managed recycling and recovery system based on some positive foreign experiences. However, this initiative was launched too late and it was not realistic and effective, compared with the government sponsored Regulations anchored within the positive legislation.

The newly introduced deposit system ia based upon a system consisting of environmental fees and deposits - stimulating the use of returnable packaging with the setting of specific returnable packaging quotas for different product categories (Regulations on the packaging and packaging waste, 2005). The system of environmental fees is relatively complicated and is designed for specific packaging material, container capacity and the achievement of the national returnable packaging quota. The new system is dealing with solely beverage and diary packaging with the capacity above 20 cl. The other product categories are not covered yet. The Regulations is also making slight difference in taxation among different packaging materials (e.g. glass, PET, other plastic materials, metal). There is a recovery fee which is calculated by the weight of material and quantity. There is also a return deposit which is determined at HRK 0,50 (approx. EUR 0,07) per piece of empty packaging. From the consumers' point of view, this is the deposit that will be returned/refunded when the piece of packaging is returned to the retail outlet or to other licensed collector. This deposit is mandatory for almost all packaging materials used for beverages and diary products. There is also a stimulating fee which is determined by the packaging material and the packaging capacity. The abovementioned fees and the deposit are combined together to calculate the total environmental fee or tax for a particular beverage or diary product produced in Croatia or legally imported to Croatia.

However, the implementation of such environmental laws within EU also hasn't been smooth at the very beginning - e.g. in the UK (Fernie and Hart, 2001) and Germany (Livingstone and Sparks, 1994) but the initial problems are now solved. Although the most of EU industry showed high level of awareness in favour/for the environmental legislation (Prendergast, 1995), some relevant industries in Croatia were not ready to support the newly introduced system. The industry seems to be afraid of potential cost of recycling and recovery system although they could use positive benchmarks from the neighbouring Slovenia where industry made a consensus with the government. In 2002 the government and industry established

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[1] See: www.eko-ozra.hr.

national recovery organization - Slopak, which is dedicated to the achievement of goals set up by EU environmental directives and is doing well (Milijevic, 2005).

2.3. The new Regulations and consumers: A case of misinterpretation?

Within the EU, with the rise in environmental concerns, most firms are responding with strategic environmental marketing activities designed to meet the growing demand for environmentally friendly processes, products and packaging (Pujari and Wright, 1996). Unfortunately, Croatia seems to be still quite far away from this concept. First of all, consumers should be properly informed/educated about the environmental impact of packaging when it became waste. The introduction of the new Regulations was, with no doubt, quite an opportunity for the Croatian government to start an educational program for Croatian consumers in order to change public environmental consciousness and improve the acceptance of the new deposit system. However, the whole educational and informational role has been passed to the mass media journalists. The new deposit system became a front side story for many Croatian magazines, newspapers and TV stations. However, letting the journalists to educate consumers and interpret the new Regulations wasn't exactly the best option. Despite public appearances and statements of environmental minister and ministry secretaries, there had been a vast number of misleading information present in the mass media. The misunderstanding of the new Regulations was obvious. Some of the media reported that the new Regulations was mostly referring the plastic packaging (e.g. Rak Sajn and Moskaljov, 2006), while others announced that glass packaging is not included in the deposit system at all (e.g. Gataric and Rak Sajn, 2006). There had been also misinformation about the new markings on the packaging claiming how there should be special labels on the packaging containers (e.g. RTL Vijesti, 2005). Some journalists stressed the social component of the new Regulations and presented it like an income opportunity for poorer segments of population (e.g. Martinic, 2006). The environmental message lacks completely. It is quite unclear why the government and especially the Ministry of Environmental Protection, Physical Planning and Construction did not organise a public campaign in order to present the new environmental legislation to broader public.This, however, is decreasing the potential of marketing implications for the industry since the consumers are not very familiar with the real benefits and goals of the new recycling system.

2.4. New environmental legislation and related marketing implications

Despite the lack of educational campaign that will explain to the consumers the real meaning of the new recycling system, packaging in Croatia never had been so much in the point of interest by both companies and consumers. Recent poll by a research agency Promocija plus indicated that the new deposit system came into the focus of most consumers during the first couple of months of its existence (Infoarena, 2006). So, the consumers showed their interest in the new deposit system. But, what happened with the bottlers, companies affected with new environmental taxes. Among the EU countries environmental issues were recognised in mid 90s and integrated into the business strategy (Pujari and Wright, 1996). However, it seems that a majority of Croatian companies haven't been prepared for the new situation. Instead of preparation for the new deposit system and packaging waste collection, it seems that companies and business associations were more concerned with the criticism and price increase announcements as reflection to the environmental taxes (e.g. Mrvos-Pavic, 2006; Hrnjkas and Petrovcic, 2006; Buksa, 2006).

However, breweries are supporting the new Regulations since they are already using around 80% of returnable glass packaging and are not obligated to pay additional environmental taxes (Ivezic, 2006). They were, actually, the only part of the bottling industry that accepted the new Regulations but were not successful in persuading companies from other branches of industry.

Lack of serious communication program (marketing communications) directed by the government caused a serious confusion within both the mass media and consumers. However, it also resulted in a growing interest in the environmental issues. Some companies included messages connected with the recent changes in environmental laws and the introduction of the new recycling system within their marketing communications campaigns. Their unique selling proposition (USP) stressed extra profits for end consumers resulting from changing their behavioural pattern toward "environmentally friendly" behaviour (i.e. switching to returnable packaging). Among others, the biggest national retail chain[2] positioned itself as a collection point for the used packaging, despite its opposition to the new Regulations at the beginning.

With adequate educational efforts, government could have achieved spill-over effects by introducing and stimulating environmentally friendly behaviour in all relevant industries and population clusters. Thus, multiplicative effects could have increased overall acceptance of environmentally friendly behavioural patterns.

In the case of Croatian beer industry this could be used as an additional motivator since the overall behaviour of beer consumers seems to be more environmentally conscious than in the case of other beverages. Nevertheless, this could raise some social consideration since beer is in its essence an alcoholic beverage but the model itself could be implemented within other branches of beverage industry where returnable packaging is having very low ratio (e.g. soft drinks).

3. PACKAGING AND RELATED "ENVIRONMENTAL" REGULATIONS: THE CASE OF CROATIAN BEER INDUSTRY

3.1. Beer industry – in brief(s)

Although there are several small, family owned breweries, Croatian beer industry consists of seven main producers[3]. The first four breweries together generate 91.5% of total market. Therefore, the industry could be treated as an oligopoly (Harfindahl-Hirschmann's index = 3.053)[4]. The Croatian beer market generates more than 60% of sales through retail channel and the rest through hotels, restaurants and cafés. Only 1.5% of sales is generated under the private labels. The rivalry among competitors is intensive (Gnjidić, 2004).

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[2] See: www.konzum.hr.

[3] 1. Zagrebačka pivovara (InBev) www.ozujsko.com; 2. Karlovacka pivovara (Heineken) www.karlovacko.hr; 3. Carlsberg Croatia (Carlsberg) www.carlsberg.hr; 4. Jadranska pivovara (Pivovarna Laško) www.jadranska-pivovara.hr; 5. Osječka pivovara www.pivovara.hr; 6. Buzetska pivovara www.bup.hr; 7. Daruvarska pivovara www.daruvarska-pivovara.hr.

[4] Source: HGK (Croatian Chamber of Commerce): The beer production report 10/2006.

Table 1. Beer production and consumption in Croatia 2000-2006[5]

Year	Local production (hl)	Exports (hl)	Imports (hl)	Consumption (hl)	Exports/Local production - share (%)	Imports/ Consumption – share (%)
2000	3,847,452	230,590	163,660	3,780,522	6.0	4.3
2001	3,799,271	196,500	236,280	3,839,051	5.2	6.2
2002	3,623,893	213,300	274,190	3,684,783	5.9	7.4
2003	3,679,481	227,650	322,680	3,774,511	6.2	8.5
2004	3,593,088	291,890	305,240	3,606,438	8.1	8.5
2005	3,459,464	331,410	389,190	3,517,244	9.6	11.1
Index 05/04	**96.3**	**154.6**	**174.2**	**98.2**	-	-
I-IX 2005	2,755,384	257,250	305,870	2,804,004	9.3	10.9
I-IX 2006	2,804,722	328,400	272,280	2,748,602	11.7	9.9
Index 06/05	**101.8**	**124.0**	**94.3**	**101.4**	-	-

Source: HGK (Croatian Chamber of Commerce).

Table 2. Beer exports and imports in 2005 by countries

Country	Exports (hl)	Share (%)	Country	Imports (hl)	Share (%)
Bosnia and Herzegovina	305,130	93.4	Nederland	163,280	46.1
Serbia and Montenegro	14,050	4.3	Slovenia	104,110	29.4
Slovenia	5,470	1.7	Serbia and Montenegro	72,460	20.5
Sweden	2,090	0.6	Germany	14,460	4.1
TOTAL	**326,740**	**100.0**	**TOTAL**	**354,310**	**100.0**

Source: DZS (Central Bureau of Statistics in Republic of Croatia).

Although the beer is relatively popular in Croatia (Table 3), the "emerging" substitutes – beverages and natural spring water, caused certain market changes (Table 4).

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[5] N.B. Exports and imports figures do not include quantities that were temporally exported to Hungary for the purpose of quality improvement and imported back to Croatia.

Table 3. Beer consumption in Croatia 2000 – 2006 (total and per capita)[6]

Year	Total consumption (hl)	Total population	Consumption *per capita* (l)	15+ population	Consumption *per capita* (l)
2000	3,780,522	4,784,265	79	3,858,086	98
2001	3,839,051	4,437,460	87	3,682,826	104
2002	3,684,783	4,437,460	83	3,682,826	100
2003	3,774,511	4,442,000	85	3,682,826	102
2004	3,606,438	4,439,000	80	3,722,800	96
2005	3,539,964	4,495,248	79	3,672,617	96
I-IX 2005.	**2,761,266**	**4,495,248**	**61**	**3,672,617**	**75**
I-IX 2006.	**2,799,909**	**4,495,000**	**62**	**3,672,617**	**76**

Sources: DZS (Central Bureau of Statistics in Republic of Croatia), Eurostat (www.epp.eurostat.ec.europa.eu) and authors' estimates.

Table 4. Comparative analysis of production and consumption of beer and substitutive beverages in Croatia 2001 – 2006

Year	2001		2002		2003		2004		2005		I-IX 2006	
	Prod.	*Cons.*	*Prod.*	*Cons.*	*Prod.*	*Cons.*	*Prod.*	*Cons.*	*Prod.*	*Cons.*	*Prod.*	*Cons.*
Beverage category	1000 hl		1000 hl		1000 hl		1000 hl		1000 hl		1000 hl	
Beer	3,799	3,839	3,623	3,684	3,679	3,774	3,593	3,606	3,459	3,539	2,804	2,799
Juices	297	322	284	318	489	520	545	521	607	363	522	485
Syrups	89	107	101	94	129	99	27	20	44	-	28	-
CSDs	1,657	2,977	1,949	2,337	2,238	2,675	2,491	2,454	2,608	2,914	2,051	2,226
Mineral waters	2,435	2,531	2,522	2,517	2,609	2,678	2,244	2,228	2,306	2,366	1,844	1,876
Spring waters	-	-	330	402	650	699	568	547	806	741	690	616
Spirits	163	-	109	-	101	65	132	129	134	130	98	98

Source: HGK (Croatian Chamber of Commerce).

3.2. Beer packaging - in brief(s)

The Croatian beer industry could be considered as relatively undifferentiated by packaging. There are two categories of *standard* packaging (market share: approx. 95%):

1. Returnable:
- glass bottles (0.5 l and 0.33 l)
- barrels (50 l and 30 l)
2. Non-returnable:
- cans (0.5 l and 0.33 l)
- PET bottles (2 l; 1.5 l and 1 l)
- glass bottles (0.33 l and 0.25 l)

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[6] N.B. Figures for the I-XII were not yet available.

Non-standard (special) packaging is relatively rare (approx. less than 5% of total market):

1. Returnable:
- glass bottles (0.66 l; 0.5 l and 0.35 l)
2. Non-returnable:
- cans (0.5 l and 0.25 l)
- glass bottles (0.66 l and 0.25 l)

Relative shares of specific packaging in distribution channels are presented in Table 5.

Table 5. Average beer consumption in Croatia by packaging type and distribution channel

Pack type	Retail (share - %)	HORECA (share - %)	TOTAL (share - %)
Glass	73.3	82.4	74.8
PET	17.5	-	11.9
Can	9.2	0.4	6.5
Draft	-	17.2	6.8
TOTAL	100.0	100.0	100.0

Source: AC Nielsen (retail and HORECA panel research 2005-2006).

Table 6. Standard packaging type shares and prices per litre by packaging type and distribution channel (average in 2005 – 2006)

	Retail		HORECA		TOTAL
Packaging type	**Share (%)**	**Price (HRK/l)**	**Share (%)**	**Price (HRK/l)**	**Pack. type share (%)**
I. Returnable packaging					
Glass 0,5 l	69.4	10.20	52.1	20.50	62.9
Glass 0,33 l	1.1	17.40	19.8	36.60	8.1
Barrels 30 and 50 l	0.0	-	17.2	22.80	6.4
TOTAL	**70.5**	**-**	**89.1**	**-**	**77.4**
II. Non-returnable pack.					
Can 0,5 l	6.6	14.30	0.1	19.00	4.2
Can 0,33 l	2.4	16.40	0.2	30.60	1.6
PET 2 l	4.0	7.30	0.0	-	2.5
PET 1,5 l	1.7	9.00	0.0	-	1.0
PET 1 l	8.4	11.10	0.0	-	5.3
Glass 0,25 l	2.8	18.20	9.9	37.30	5.4
TOTAL	**25.9**	**-**	**10.2**	**-**	**20.0**
Other packaging	3.7	-	0.7		2.6
GRAND TOTAL	**100.0**		**100.0**		**100.0**

Source: AC Nielsen (retail and HORECA panel research 2005-2006).

3.3. New "environmental" regulations

Regulations on packaging and packaging waste were introduced in 2005 and the producers were obliged to pay following fees:
- *disposal fee* (to cover the waste disposal costs)
- *returning fee* (0.5 Kn for liquid products packed in containers 0.2 l + - in order to motivate end users to return the packaging for recycling purposes – the fee is refunded after the product is sold through distribution channels),
- *motivation fee* (introduced for producers which do not achieve following percentages of returnable packaging in their total output (percentage per specific year): 2005 (55%); 2006 (65%); 2007 (70%); 2008 (75%); 2011 (80%); 2012 (85%); 2013 (90%).

The disposal fee is used by governmental *Fund for waste disposal* and is not refundable. It is calculated as a part of production costs. As a result, the retail prices of beer packed in non-returnable glass bottles, PET and tins were "flatly" increased – in order to cover the additional costs. The industry experts market predicted that the end users will change their habits and buy more products packaged in returnable packaging (with no negative effects on total quantities sold).

Table 7. Comparative analysis of packaging type shares and price per litre by distribution channel in 2005 and 2006

	Retail				HORECA				TOTAL (Pack. type share -%)	
	2005		2006		2005		2006		2005	2006
Packaging type	Share (%)	Price (kn/l)	Share (%)	Price (kn/l)	Share (%)	Price (kn/l)	Share (%)	Price (kn/l)	Share (%)	Share (%)
I. Returnable pack.										
Glass 0,5 l	72.1	9.50	67.5	10.50	53.2	20.10	50.6	20.80	65.6	61.6
Glass 0,33 l	1.2	17.10	1.1	18.50	19.1	35.90	19.2	36.40	7.3	7.3
Barrels 30 and 50 l	0.0	-	0.0	-	17.4	22.70	19.3	22.80	6.0	6.7
TOTAL	**73.3**	**-**	**68.6**	**-**	**89.7**	**-**	**89.1**	**-**	**78.9**	**75.7**
II. Non-returnable pack.										
Can 0,5 l	7.2	13.70	7.1	15.10	0.1	18.8	0.0	19.70	4.7	4.6
Can 0,33 l	2.8	15.80	2.6	17.50	0.3	30.1	0.2	28.90	1.9	1.8
PET 2 l	1.2	6.90	5.5	7.80	0.0	-	0.0	-	0.8	3.6
PET 1,5 l	0.0	9.40	1.7	9.40	0.0	-	0.0	-	0.7	1.1
PET 1 l	8.4	10.70	8.3	13.40	0.0	-	0.0	-	5.5	5.5
Glass 0,25 l	3.2	17.20	2.4	19.80	9.5	36.7	9.5	38.40	5.3	4.8
TOTAL	**22.7**	**-**	**27.5**	**0**	**9.9**	**-**	**9.7**	**-**	**19.0**	**21.3**
Other	4.0	-	4.0	-	0.5	-	1.2	-	2.1	3.0
GRAND TOTAL	**100**	**-**	**100**	**-**	**100**		**100**		**100**	**100**

Source: AC Nielsen (retail and HORECA panel research 2005-2006).

The resulting changes were obvious and significant (Table 7):

- average prices of beer in returnable packaging sold through retail channel were increased by 10.4%,
- average prices of beer in non-returnable packaging sold through retail channel were increased by 8.49%,
- average prices of beer in returnable packaging sold through hotels, restaurants and cafes (HORECA) were increased by 4.23%,
- average prices of beer in non-returnable packaging sold through HORECA were increased by 1.96%.

The similarities regarding increasing of prices in both distribution channels are obvious. The new "environmental" regulations directly caused the higher level of retail prices of beer (price increase = 2.1%).

The differences in sales of products in returnable and non-returnable packaging (see Table 7) resulted only with "re-structuring" of end-users demand. Therefore, the new "environmental" regulations caused the higher level of retail prices, but there are no evidences of decreased demand for beer in non-returnable packaging. In addition, the sales of beer packed in returnable packaging were not decreased as some experts predicted.

In general, the end-users (consumers) reacted positively on newly introduced regulations – they did not significantly change their buying behaviour! This could be interpreted as a clear signal to industry – every fair/unbiased (flat) regulation that is social acceptable is not supposed to cause turbulent market changes and could be treated as a marketing strategy "placebo" effect for every producer that already achieved certain sustainable competitive advantage.

4. CONCLUSION (OR INSTEAD OF IT)

Although there are no doubts about the positive general attitude towards the contemporary corporate social responsibility issues related to packaging within the context of recycling and recovery, industry could be concerned about possible cost inefficiency caused by strict environmental regulations. The abovementioned could not be denied, but the example of Croatian beer industry indicates that newly introduced "environmental regulations", in most cases, could not be blamed for negative changes related to buying behaviour, sales structure and profitability – in general. In addition, in marketing terms, the implementation of socially responsible environmental regulations could generate positive perception of the industry and all relevant stakeholders involved in the process (although it is difficult to measure such effects). At the same time, although the retail price level was increased, according to presented evidences, it is obvious that the newly established (higher) price "equilibrium" had not caused structural changes in relative market shares or any relevant aspect of buying behaviour at the national B2C market. Therefore, the environmental issues and policies could be planned and implemented in industry-government partnership(s) and socially responsible businesses could use them as a source of sustainable competitive advantage. False excuses for market(ing) failures are no longer welcome!

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THE EFFECTS OF EXECUTIVE MARKETING ORIENTATION, ORGANIZATIONAL STRUCTURE, SIZE AND AGE ON PERFORMANCE

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1. INTRODUCTION

The original philosophical basis of marketing described as the "marketing concept" or "marketing orientation" (MO) has been based on the principle that the best way for a business to achieve high performance (profit) is through satisfying consumer needs (customer/market orientation) and the emphasis on an integrated marketing strategy. (e.g., Bartels 1976; Canning 1988; Hunt 1976a; Hunt 1976b; Kotler 2002; McGee and Spiro 1988; Narver and Slater 1990; Shapiro 1988; Webster 1988). This value based directive, first indirectly mentioned by Shaw (1929), but more directly stated by the General Electric Corporation (1952) and Mcittrick (1957), has became an integral part of almost all marketing management texts as well as an essential precept forming the ideological basis of marketing education. Although the philosophy has been subject to empirical evaluation and there exists some evidence in support, it is, nonetheless, not clear that the prescription always leads to beneficial outcomes (Dunn, Norburn, and Birley 1994; Ellis 2005; Hooley et al. 2003; Jaworski and Kohli 1993; Kohli and Jaworski 1990; Narver and Slater 1990). The conceptual structure is poorly specified and imprecise for uncritical acceptance and implementation. For example, the precept of the pursuit of "consumer need satisfaction" breaks down with deleterious, perhaps illegal products such as drugs. Granted this situation, further conceptual and

empirical research becomes of imperative importance particularly for developing nations, which are, in some cases, uncritically implementing western marketing practices. It is our purpose to contribute to this endeavor by providing exploratory evidence concerning the effects of executive MO, organizational structure, size and age on performance in the developing economy of Croatia.

2. CONCEPTUAL DEVELOPMENT

While the transformation of the former command economic systems may be viewed as a part of the inevitable entropy or a steady deterioration of a systems or societies, the change was drastic and accompanied by, in some cases, extreme economic distress. The problems originated from conflict, war, and the necessary for the radical change of the system and social structure. Even in stable circumstances, with a leadership imbued with goodwill, the problems were exacerbated by a deficiency of knowledge and precedent for the radical change (Crnjak-Karanović, Pecotich, and Renko 2005; Koves and Marer 1991; Marer and Zecchini 1991; Pecotich, Renko, and Shultz 1994; Pecotich and Shultz 2006a; Pecotich and Shultz 1998; Shultz and Pecotich 1997). Faced with the necessity for reform, and fully aware of the deficiencies of their previous systems as well as being flooded with Western propaganda, it was inevitable that the leadership should turn to the market system and the associated theories as a source of inspiration for change. As a consequence the major thrust of the transformation focussed on the market as well as education in Western business theory and applied implementation.

This dual movement towards a market-based economy and business education had related implications. The privatization of industry, a necessity for the market system, foreshadowed the need for MO and a new educated management for its strategic implementation. In its primary form privatization involves a transfer of ownership of assets from some form of state controlled collective ownership to a smaller group who represent private interests, so transforming a public enterprise into a private one. The asserted economic benefits brought about by this transformation, however, are predicated on common beliefs that are more grounded in ideological faith then in evidence (e.g., Anonymous 1998; Baldwin 1987; Bozeman 1987; Byrnes, Grosskopf, and Hayes 1986; Converse 2000; Crew and Camathe 2003; Hossain and Malbon 1998; Institute for Southern Studies 2000; Megginson and Netter 2001; Prizzia 2003; Simon 1995; Van De Walle 1989; Van Horn 1991; Vickers and Yarrow 1988). Advocates of privatization argue that the privatization of state-owned enterprises will improve economic efficiency because of greater competition and ownership responsibility.

The industry within these now developing economies consists of state-owned enterprises, private owned foreign enterprises, and privately owned enterprises, in a competitive environment. Many of the state enterprises still keep the pre-reform moribund management structure or are operating rudderless while awaiting a political decision to be made about their future. The privatised corporations are likely to be led by a market driven, educated new management that understands and is attempting to apply innovative management concepts. It is, therefore, expected that state owned enterprises are less likely to adopt the Western marketing philosophy (see Figure 1, for the structure).

 With regard to MO the evidence suggests there is a positive relationship between that variable and corporate performance (Dunn, Norburn, and Birley 1994; Ellis 2005; Hooley et

al. 2003; Jaworski and Kohli 1993; Kohli and Jaworski 1990; Lloyd and Nigel 1999; Narver and Slater 1990; Shun-Ching and Arthur Cheng-Hsui 1998), but the support is strongest among mature companies in well developed economies (Ellis 2005, p., 630) although this may also be true in developing economies (Akimova 2000; Ellis 2005; Hooley et al. 2003; Pecotich and Shultz 2006b; Shengliang and Dart 1999; Shun-Ching and Arthur Cheng-Hsui 1998; Xiaohua and Richard 2003; Zaharieva, Matthew, and John 2004). This evidence for the developing economies has deficiencies in the measurement and design, the evidence, therefore is not strong. Given the philosophical imperative in marketing and the nature of the existing support it is reasonable to postulate a positive relationship between MO and corporate performance (see Figure 1).

Two additional variables that have implications for this study are organizational size and age. Essentially the theoretical positions on these two variables are in conflict (Gooding and Wagner 1985; Greve 1999; Ranger-Moore 1997). One position suggests that size and longevity are indicants of success because the organization has survived and grown. The advantages of size are many and include such factors: resource availability, greater competitive strength, more control over their operating environment and political influence. Age has similar advantages as there is an inherent "liability for newness" and inexperience (Ranger-Moore 1997). New organizations must create structures involving costly learning and other set up costs. The theorists embracing the other point of view base their arguments on the point that growth and aging processes increase organizational inertia. It is postulated that as organizations age and grow they are less like to react to environmental change due to bureau-cratization and other time-dependent processes. Despite considerable research it has not been possible to find definitive support for either point of view (Gooding and Wagner 1985; Greve 1999; Ranger-Moore 1997). In developing our exploratory conceptual structure we have decided to separate the two variables. Size is a stronger clearer indicator of corporate success and power, and we therefore postulate that it will have positive association with MO and performance. Older organizations are more likely to be imbued with inertia and so fall victim to obsolescence and senescence we, therefore postulate negative associations (see Figure 1).

3. METHOD

3.1. Sample

The study was conducted in Croatia - a central European nation that is undergoing economic development but has a turbulent recent transitional history. The sample was drawn from the top 1000 Croatian Corporations as published by the "Privedni Vjesnik". The direct mail approach procedure was used to collect the data from key informants, that is from senior managers who have the best vantage point for viewing the entire organization and, thus, are able to provide the most accurate responses. Instructions ensured the respondents understood the purpose of the study and the assurance of confidentiality. Of the 1000 questionnaires mailed 197 substantially completed questionnaires were received giving a response rate of 19.7 percent which was considered satisfactory (Dillman 2000; Dillman 1978; Dillman et al. 1974; Groves 1989; Kotha, Rajgopal, and Rindova 2001). All the respondents held high-level executive positions within their corporations of which, 34% were foreign/private, 39% domestic/private and 27% were state owned. The sample emanated from a wide variety of industries (43 percent were involved with consumer products, 31 percent with industrial products, 19

percent with business customers and 20 percent with services) thus representation was acceptable.

3.2. Procedures and Measures

The data was collected using self-administered questionnaires that were based on the MO measures as developed by Jaworski and Kohli (Jaworski and Kohli 1993; Kohli and Jaworski 1990), and extensively used and validated in marketing (Ellis 2005). The instrument was translated into Croatian and back-translated into English to ensure accuracy of translation and pre-tested as recommended by Brislin (1986). The respondents were asked to complete a set of items on five point scales as per Jaworski and Kohli (1993). The four elements of the scale were found to have a satisfactory factor structure as postulated by Jaworski and Kohli (1993) and coefficient alphas of .76, .80, .69, and .76. As financial reporting conventions varied, it was decided to collect conceptual measures of performance. Essentially the respondents were asked to indicate on five point scales how well they had performed within their industry. They were also ask to report the nature of their performance over the last three years, again on five points scales ranging from much worse to much better and also to indicate their market share for the immediately preceding three years. Size was measure by two variables i.e., *asset value* and *number of employees*. Age was simply computed by subtracting the date of establishment from the present year (2006). Finally, the state/private dimension was measured by a simple proportion of ownership with the state proportion at the high end. The measures were consistent with those previously used in these kinds of studies (Dess and Robinson 1984; Ellis 2005; Jaworski and Kohli 1993).

4. ANALYSES AND RESULTS

Our initial analytical processes involved the plotting of data, transformation and the evaluation of the nature missing values (Anderson 2001; Neter, Wasserman, and Kutner 1990; Tabachnick and Fidell 1989). We found no indication that the missing values in our study were related to any variable of substantive interest. Nonetheless, the sample size was reduced to 139 due to the intersection of the missing data (Little and Rubin 1987; Schafer 1997; Schafer and Graham 2002). The size variables were found to be highly skewed and were therefore transformed to natural logs as recommended (Neter, Wasserman, and Kutner 1990). Also to allow for the possibility that the performance and size metrics were impure it was necessary to evaluate and control the nature of the relationship. This was achieved by running a series of regressions of size on the performance measures and using the resulting residuals for further analysis (Neter, Wasserman, and Kutner 1990). There was no significant difference in the results suggesting that there existed sufficient discrimination between the measures and an analysis with either set of variables was acceptable.

To test theoretical propositions we used the partial least squares (PLS) estimation procedure (Chin 1998; Fornell and Cha 1994; Lohmoeller 1989; Wold 1981). PLS is a general technique for estimating path models involving latent constructs indirectly observed by multiple indicators. It was developed by Wold (1981) to avoid the necessity of large sample sizes and 'hard' assumptions of normality. It was, therefore, considered particularly suitable in this study as our aims are largely exploratory. A PLS model consists of two sets of linear

relations: the outer model involving the latent and the manifest variables; and the inner model where the hypothesized relationships between the latent variables are specified. A major advantage of PLS is that the outer model formulation explicitly allows for the specification of both reflective and formative modes as well as categorical variables. Reflective indicators are formed in the classic test theory factor analytic model. The formative indicators, however, are not assumed to measure the same construct nor are they assumed to be correlated. Rather they are an optimum linear combination forming the latent construct. We expressed all measures as reflective indicators in which case the factor analytic model applies. The revised PLS computer program (Chin and Fry 2003) was used to evaluate systematically the properties of the outer and the inner model as expressed in Figure 1.

Evaluation of complex models involves a logical examination of several fit indices to establish the predictive relevance (Lohmoeller 1989). The results in relation to the outer measurement model were all found to be satisfactory with the exception of the Market share measures. These were, surprisingly, found not to load on the performance measures and, as no significant relationships were found, to lack predictive validity so were dropped from further analyses. For the latent variables the bootstrap critical ratios (Chin 1998) are acceptable (greater than 1.96) for all variables. The Average Variance Extracted (AVE) (Chin 1998; Fornell and Cha 1994) were high (above .53) and the combined reliabilities were satisfactory (above .69). The postulated negative association between relationship *State/private* and *MO* was supported (Figure 1) - the standardized regression coefficient was significant (β = -.21, p < .05). The relationships between age and size, and MO were found not to be significant. The mean proportion of variance explained (AVA), the R^2 for the endogenous variables MO was found to be 0.10 which was acceptable, suggesting that the effect size may be of applied importance. The relationship between *MO* and *performance* was found to be significant (β = .32, p < .05) and in the postulated direction as were the links between *performance*, and *age* (β = -.19, p < .05) *and size* (β = .27, p < .05) of *enterprises*. The R^2 was in this case .25 which was higher than the recommended minimum of .10 suggesting the effect size may be of sufficient magnitude to be of further interest (Falk and Miller 1992). In examining the latent variable correlations and the cross-residuals matrix omitted relationships of substantive size were found so indicating that explanatory additions to the model were not necessary

5. DISCUSSION AND CONCLUSION

In this study we sought to evaluate the impact of Western (US) philosophical ideas on the performance of organisations within the developing, transforming nation of Croatia. We based our conceptual arguments on classic economic theories of the market, and the exhortations of marketing scholars to adopt the marketing philosophy which is postulated to lead to corporate success. In this context the prescription is to privatise and adopt the MO that is expected to lead to higher performance. It was asserted that Croatia a developing nation that is emerging from a state controlled economic system and moving to a market structure was particularly suitable for such a test. We operationalised and tested the propositions shown in Figure 1 using data based on responses to self-administered questionnaires from 139 Croatian executives. Our data supported the existence of a negative relationship between *state/private* organisations and *MO* and the positive association of *MO* to *performance*. We also found, as expected, a negative direct relationship between enterprise *age* and *performance* as well as a positive relationship between *size* and *performance*.

Our results, therefore, tend to support the marketing imperative concerning the implementation of marketing principles and practices. This is consistent with previous research (Akimova 2000; Ellis 2005; Hooley et al. 2003; Jaworski and Kohli 1993; Xiaohua and Richard 2003; Zaharieva, Matthew, and John 2004), but provides more formalised evidence in a developing economy. A promising finding was that size and performance metrics may be sufficiently discriminatory to justify their use as independent variables. Also supported were the postulated inertia effects due to age and the advantages of size. The effect sizes were in the mid-range suggesting a promising basis for further exploration.

The failure of the *market share* variables is surprising but may be due to possibilities that merit further investigation. Market shares may change slowly in comparison to perceptual measures and longer term perhaps longitudinal studies may be necessary to reveal its effects. A more serious possibility is that the market share non-results are caused by deficient or inaccurate knowledge. The large number of missing values tends to support this view. As market shares have concrete referents, unlike much of the other data which is based on personal perceptions, this has implications for our results and future research. Market share is an important variable of major strategic relevance; its inaccurate knowledge may have major impact on performance. In conclusion, we must caution against unconditional acceptance of the results of this study. Further research in different contexts with varying methodologies is needed before strong conclusions can be made. However, our research does provide a promising basis for the future.

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FIGURE 1: THE EFFECTS OF EXECUTIVE MARKETING ORIENTATION, ORGANIZATIONAL STRUCTURE, SIZE AND AGE ON PERFORMANCE[1, 2]
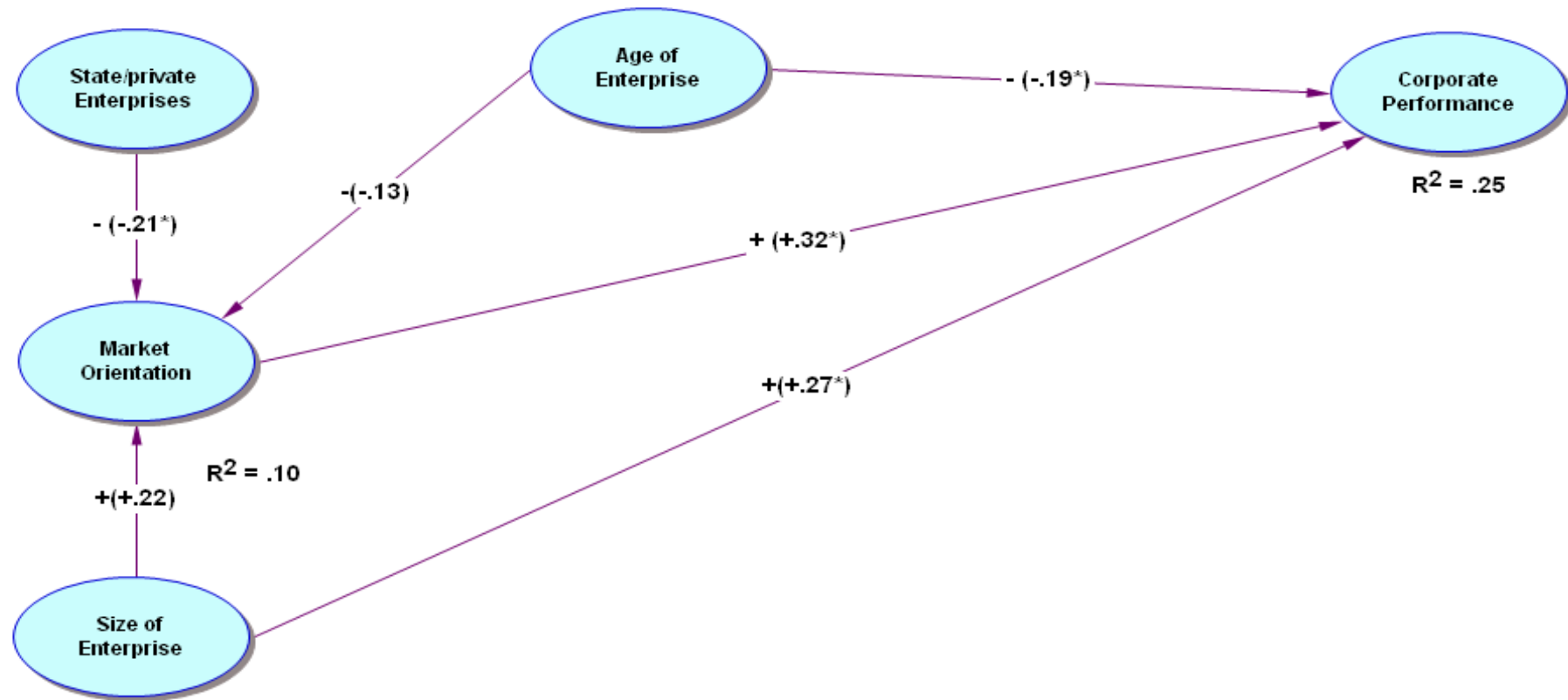
Note: [1] The + or - indicate the direction of the postulated relationship and the figures in parentheses are regression coefficients where * indicates significance at $p < .05$ (Bootstrap T Statistic).

[2] R^2 indicates the effect size or proportion of variance explained by the relevant regression equation.

EXPROPRIATION OF MINORITY SHAREHOLDERS OR SOCIAL DIVIDEND?
A Conceptual Framework

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1. INTRODUCTION

This paper offers a conjecture: in some cases minority shareholders willingly accept expropriation by majority shareholders, considering it to be a form of remuneration of *social capital* put at the disposal of the firm by the majority shareholders. Social capital, discussed more precisely in the next section, is understood here to be the goodwill resulting from privileged relationships of the majority shareholders and which can be used to procure tangible economic benefits for the firm. For instance, if the majority shareholder arranged through his or her personal influence for the firm to have an exclusive import license, then we consider this to be an investment of social capital, entitling the majority shareholder to economic benefits from the firm in excess of those stemming from ownership rights. We propose to dub such excess remuneration *social dividend*. We also introduce related concepts of *social depreciation*, *social assets*, *social liabilities* and *social equity*.

All around the world business groups associate minority investors in parts of their empires. Sometimes this is done through a public company, affording minority investors liquidity associated with the stock market, and -- at least theoretically -- increased protection of their rights through government oversight. But many ventures are private, with far less protection of minority rights. Frequently the "majority owners" in fact have only minority economic interest, either through dual-class shares with differing voting rights or when they invest in the company through a pyramid scheme in which at each stage to maintain control they only have to own a little more than 50% of shares (Amit and Villalonga, 2006; Anderson and Reeb, 2003; Bebchuk, Kraakman and Triantis, 2000; Berle and Means, 1932; Daily and Dalton, 1992; Demsetz and Lehn, 1985; Fama and Jensen, 1983; Shleifer and Vishny, 1986; Wolfenzon, 1999).

This paper focuses on the case where the majority shareholder is an individual or a family, which is the case in many developed and developing countries (La Porta et al., 1999). True, many large public companies with a diffused ownership structure, such as Total or France Telecom, have publicly listed part-subsidiaries, and many of the arguments in this paper apply to them as well. But family firms offer a clearer case, and concentrating on them sharpens the focus.

It is often argued that the classical agency problem to align owners and managers in a firm (Jensen and Meckling, 1976) does not apply to family firms as their governance structures often combine ownership and management. Instead, scholars argue that family firms face a different type of agency problem, which is the possible conflict of interest between different groups of shareholders (Chrisman et al., 2004; Morck and Yeung, 2003). In family companies the non-family investor faces an important question: is the business managed to maximize the wealth of all investors or is some of its performance sacrificed to the benefit of the family? Because the family controls management, it has a myriad of opportunities to expropriate the company: overpaying purchases, under-pricing sales, nepotism, and other practices known collectively as "tunneling" (e.g., Bae, Barclay and Holderness, 1989; Bertrand, Mehta and Mullainathan, 2002; Friedman, Johnson and Mitton, 2003; Kang and Jin-Mo, 2002; Johnson et al., 2000; Ming and Wong, 2003). Such private benefits are described by Coffee (2001) as "all of the ways in which those in control of a corporation can siphon off benefits to themselves that are not shared with the other shareholders." Modern auditing and oversight methods are designed to prevent such practices. But countries have imperfect institutional environments and barriers to expropriation are fairly fragile. Such expropriation is common in transitional economies in general (e.g., Claessens, Djankov and Lang, 2000; Dharawadkar, George and Brandes, 2000; Firth, Fund and Rui, 2006; Johnson *et al,.* 2000; La Porta et al, 1999; Leuz, Nanda and Wysocki, 2003; Lemmon and Lins, 2003; Mitton 2002), and in Asian economies in particular, such as Korea (Chang and Hong, 2000; Chang 2003), Taiwan (Yeh, Lee and Woidtke, 2001), India (Bertrand et al., 2002), China (Ming and Wong, 2003) and Hong Kong (Cheng, Rau and Stouraitis, 2006). But European countries as well are known to experience this phenomenon; for instance Belgium (Buysschaert, Deloof and Jegers, 2002), Germany (Ehrhardt and Nowak, 2001; Franks and Mayer, 2001; Gugler and Yurtoglu, 2002), Bulgaria (Atanasov et al., 2006) and Spain (Miguel, Pindado and de la Torre, 2005). In France expropriations of minority shareholders by business tycoons Pinault (e.g., Roche, 2003) and Arnault (e.g., Routier, 2003) have been well documented. In some countries such as Sweden (Doukas, Holmén and Travlos, 2002) or the United States (Anderson and Reeb, 2003) tougher market regulations make tunneling harder to detect, maybe indeed less prevalent. Yet family controlled companies frequently are a popular choice of the investing public (Miller and Breton-Miller, 2005), which seems to accept some degree of expropriation. This is puzzling, especially in an open global investment market with plentiful options to invest in companies without diffused ownership.

The ideas presented here emerged from the sense-making phase of an extensive case study of the strategic evolution of the Salim Group, founded in the late thirties by a proverbial "barefooted" immigrant from China, some sixty years later representing in turnover five percent of Indonesia's GDP, with over 200 000 employees and hundreds of companies (Carney, Dieleman and Sachs, 2006; Dieleman 2006; Dieleman and Sachs, 2006a, 2006b; Sato, 1993; Soetriyono, 1989; Twang, 1998; Weidenbaum and Hughes, 1996). The spectacular success of the Group is largely attributed to the very close corrupt relationship between the owning family and Suharto, Indonesia's dictator for thirty-two years, but also to

the family's extensive network of ethnic-Chinese connections. The family had many partners, always retaining controlling rights, and several of its more prominent companies were publicly listed on various Asian stock exchanges. Accounting and reporting practices were far below the standards of dominant international markets, and the Group was not known for being overly committed to transparency. It was widely assumed in Indonesia that the Group played all kinds of cat and mouse games with its minority shareholders although pinning down irrefutable evidence is a difficult, if not a hazardous task. It appeared obvious to us that many minority shareholders accepted a priori that they will not be getting their fair share of the fruit from their investments.

We conjectured that this acquiescence resulted from the acceptance that the Salim family was entitled to be remunerated for "lending" their connections to their individual companies, and that it needed the economic means to maintain and further develop their network of relationships. Furthermore, it became clear to us that this modus operandi was necessary in the institutional environment of Indonesia. We thought that a somewhat formalized concept of social capital and the derivative one of social dividend are well suited to describe these conditions. Together with theories of conglomeration and of institutional development, they provide a theoretical framework to explain the phenomenon.

The next two sections offer a possible explanation using the concept of "social capital," which is the set of privileged relationship of the family that it employs to the benefit of the company, expecting in return to be remunerated as it would be for a pecuniary investment. An adaptation of accounting concepts is then proposed to identify ways in which social capital can be remunerated.

2. THE CONCEPT OF SOCIAL CAPITAL

The concept of "social capital" arose as the response of sociologists to the economic concept of "human capital." The latter was formulated as a way of broadening the classical model of an economic entity, in which (financial) capital and labor are used to transform inputs into outputs (e.g., Leontief, 1973). The idea is to not treat labor as an undifferentiated commodity, but rather to recognize that education and skills are a source of wealth, frequently far more important than money (Mincer, 1958; Becker, 1964).

Sociologists expanded on this concept by pointing out that "human capital" accounts only for intrinsic qualities of human beings – and by extension of social entities – such as education and skills. But social entities also have extrinsic qualities by deriving positional benefits from relationships. They can call on social networks for support and solidarity, or just to gain access to scarce resources, and they contribute in turn to other members of the network. Thus social capital is as "real" as human capital or just capital (e.g., Bourdieu 1985; Coleman 1988; Fligstein, 1997; Lin 2001; Putnam 2000; Uzzi, 1997; Woolcock, 1998).

Since its inception the concept of social capital proved to be very fertile, used in a myriad of fields of inquiry (Dasgupta and Serageldin, 2000; Knack and Keefer, 1997). It is generally viewed as a "good thing" as when development experts argue that it can help in rendering poor communities more resilient or when students of transitional dynamics in post-communist countries see it as a key element in fostering democracy and other modern institutions. Theories of the firm also use the concept to advance their understanding of the role of culture and group cohesion in producing desirable outcomes such as client orientation or innovation (e.g., Adler and Kwon, 2002; Nahapiet and Ghoshal, 1998; Uzzi, 1997). This paper proposes

a more instrumental perspective, arguing that social capital of the firm or of the firm's owners – seen here as political and business relationships with powerful players – is a direct producer of significant strategic results, as when a firm benefits from a state-granted monopoly.

There is ample evidence that social capital is a key corporate success factor in countries with underdeveloped institutional environments (Blyer and Coff, 2003; Carney, Dieleman and Sachs, 2006). During the years of import-substitution industrialization the governments in developing economies promoted local companies providing them with subsidized loans, exclusive rights and tax advantages, frequently with the blessing from and participation of international institutions (e.g., Wu and Wu, 1980). Some spectacularly wealthy businesses emerged, including the Salim Group. For private entrepreneurs it was critically important to be chosen as beneficiaries of government largesse, and that depended on their relationships and willingness to remunerate corrupt officials. Many countries saw the emergence of what was dubbed "crony capitalism" (Kang, 2002).

Some authors (e.g. Adler and Kwon, 2002) distinguish between bonding and bridging forms of social capital. Bonding capital accrues to an individual by virtue of belonging to a close-knit group, such as an ethnic minority or an "old boy's network." Members of the group exhibit greater goodwill to each other than to outsiders, are bound by some kind of a code of conduct, and obligated to participate in some sort of a trading of favors. Bridging capital accrues to an individual by virtue of his or her intermediation position, establishing useful relations across boundaries that are not easily crossed. Such capital is more ephemeral than the bonding form; it requires maintenance through a continuing transaction stream and does not transfer easily to others. Both forms of social capital need to be maintained by continued investments, implying that social capital comes at a cost to the firm or its owners. In some cases the costs of social capital may exceed the benefits and its careful management is therefore required (Carney, Dieleman and Sachs, 2006)

3. THE ROLE OF SOCIAL CAPITAL

In environments with poorly developed market institutions economic transactions are difficult: the legal framework may not be able to enforce contracts, business partners may be unreliable and dishonest, financial institutions may not be able to provide the necessary support instruments, infrastructure may be deficient, regulatory bodies may not be able to ensure a level playing field, government officials may be incompetent and/or corrupt, and the political system may be unstable (e.g., Peng, 2003). It is well established that in such environments tightly knit social networks, such as army officers, school networks, families, or minority groups, have a significant advantage (Bonacich, 1973; Cook, 1977, Davis, Trebilock and Heys, 2001; Granovetter, 1992; Keister, 1999; Portes and Sensenbrenner, 1993). Contracts can be enforced by internal group bodies, such as an honor court or a religious council, or more informally by the exercise of heavy social sanctions for deviant behavior. Reliability and honesty of partners is checked through the social "grapevine," and credit can be extended among group members without much formality, and internal rules can substitute for government regulation. The bonding social capital of the group creates an environment that is more propitious for business than the context at large. In fact it becomes a necessary ingredient of business success.

Bridging social capital is also necessary. For example, when a government allocates scarce resources on other-than-market bases, it is necessary to establish bridges with the clique controlling such decisions (Frynas et al., 2006) and to arrange for some form of payment for

favorable outcomes. The natural response of a business operating in a corrupt environment is to corrupt, and this tends to create lasting relationships between members of a particular business community and members of the government circles.

Traditionally, minority groups played an important role in economic activity, as in the cases of the Jewish, the Chinese and the Indian Diasporas. Internally, they often had a higher degree of social cohesiveness than the population at large (Chirot and Reid, 1998). Their internal codes of conduct enforced through strong social pressure made up for the deficiencies of the institutional environment that rendered trust-based legally-enforceable economic transactions difficult. Externally, in a world with high political and cultural barriers to trade, they provided bridges, thanks to their dispersion (Rauch, 2001).

Some ethnic groups have elaborate systems to regulate and even account for favors traded within the group. The Jewish Talmud evolved over centuries as a set of religious rulings on fair trade (Attali, 2002). The Chinese *guanxi* system provides a fairly rigorous mode for calculating IOUs and mutual obligations (Redding, 1990; Szeto and Wright, 2006; Xin and Pearce, 1996). Hutchings and Weir (2006) draw parallels between *guanxi* and the Muslim *wasta*. Modern groups that are not defined on ethnic lines also use implicit systems regulating the trading of favors, as described by Michel Ferrary (2003) in his discussion of "gift exchange" in the Sillicon Valley venture capital scene.

Persecuted minority groups frequently play an important role in transforming their social capital into successful business ventures. Authoritarian rulers tend to prefer doing business with such minorities, since they are more vulnerable, subject to arbitrary expropriation, less likely to transform their economic wealth into competing political power, and easily blamed to canalize popular resentment. Such groups tend to have a higher degree of social cohesiveness than the population at large, and their members can call on each other, including in trans-border networks, to trade favors and mutually advance their fortunes. In institutionally undeveloped environments, where trust and enforcement of contracts are lacking, this social cohesiveness can be a significant asset.

In the Indonesian case we have seen all of these phenomena at work. The Salim family relied on their Chinese networks, both domestically and throughout South East Asia. The caste of army officers, Suharto chief among them, that exercised authoritarian control over the country, favored a select group of Chinese businessmen, lavishing on them subsidized credits, exclusive import licenses, tailored-made protectionist barriers and regulations, and other favors that translated into billions of dollars. They did so in exchange for economic benefits to themselves, their families and cronies. At the same time they maintained a climate of nationalistic hostility towards the Chinese minority, focusing on it the wrath of the population when the Asian crisis erupted in mob violence.

One puzzling element of the Salim case, and of many similar cases around the world, is why the government largesse focused so much on one group? Why did Suharto favor the Salims quite as much, and foregone diversification of his "portfolio of corrupt advantages" among a wider spectrum of cronies? We think that there is a double answer to that question. First, it is well known that diversified conglomeration is an advantageous business strategy in weak institutional settings (Carney, 2005; Hoskisson et al., 2000; Khanna and Palepu, 1997, 2000; Kock and Guillen, 2001). Controlling as much of the value chain as possible, including financial and media institutions, is a clever way of dealing with the deficiencies of the market, by substituting a tightly managed internal market for the vagaries of the economy at large.

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Second, contrary to the wide-spread misconception that corrupt companies are incompetent Salim emerged to be one of the most respected companies in the country, not for its ethics of course, but for its efficacy. It was in the interest of Suharto to deal with competent cronies, because he derived his political legitimacy, and hence his continuing ability to stay in power and reap economic benefits from that, from the relative success of his development policy for the nation. Thus to be successful, the Salim Group had to simultaneously develop its capabilities to corrupt and to run a good business (Dieleman and Sachs, 2006a, 2006b).

Incompetence can be deadly for corruption. Consider the case in a European country of an insurance company whose executives siphoned 6 million Euros in the purchase of land for a tourist development. The scheme was to rapidly construct a resort, resell it, and have the overpayment for land "disappear" disguised as a slight reduction of the profits generated by the transaction as a whole. However, the chief executive died unexpectedly, that project got marred in lengthy delays and more graft, to be eventually exposed, leading to several arrests.

In corrupt institutionally unstable environments a business family has strong incentives not to "put all its eggs in one basket." Family groups tend to be widely dispersed, opaque and secretive, with only parts of the structure readily visible to the outside (Carney, 2005; Khanna and Palepu, 1997, 2000; Kock and Guillen, 2001). Secrecy and opaqueness are good protection against expropriation or political upheaval. Also to maintain a better control over the complex web of relationships that constitutes the family's social capital it is important to separate the various participants, and thus not to bring them together under a single corporate umbrella. Also, different cronies are entitled to different levels of remuneration, and therefore the business structure has to be "portioned out," resulting in fragmentation. Some partners, such as Multinational Corporations, provide key skills and prefer to be isolated from the ambient corruption. They tend to be associated in separate corporations, and little "funny business" takes place in such entities. Other partners are corrupt officials and the profitability of ventures with them must be assured regardless of business performance, leading to propping: the contrary of tunneling (Friedman, Johnson and Mitton, 2003). Some ventures are entered into with cronies as "repayment of past favors" or under some sort of duress, and they may not make much business sense. Only a portion of businesses have "traditional investors" that provide capital in exchange for profits.

Even in such companies the social capital motivation may not be negligible, since the family may need for its own preservation the goodwill of the investors. Thus even in public companies owned through a pyramidal scheme – the ideal vehicle for minority shareholder expropriation in economies with weak law enforcement records for corporate governance – the family must limit its appetite to preserve public goodwill. This suggests a self-regulatory mechanism that may explain why minority investors may not worry too much about being excessively expropriated.

If the company enjoys a wealth-generating advantage due to the family's social capital then it is natural that minority investors will accept that this capital be remunerated. Thus, what may appear as "expropriation of minority investors" in classical economic theory may in fact be a "legitimate remuneration of non-monetized investment" in the eyes of the minority investors. Naturally, the term "legitimate" is used here in a narrow utilitarian sense, abstracting from broader ethical considerations.

Consider a simple example. A well connected person decides to start an arbitrage company whose business success will depend on privileged access to information gleaned from the

network. The entrepreneur has no capital which is needed to buy low and hold before reselling at a higher price. He approaches a potential investor, and agrees to sell 40% of the newly created company in exchange for the capital. The transaction assigns an a priori weight of 60% to the social capital brought in by the entrepreneur. Future gains will accrue 40% to the investor and 60% to the entrepreneur. If the entrepreneur delivers on his promises, the investor is likely to be satisfied and the transaction described here is perfectly legitimate in any jurisdiction.

It is reasonable to postulate that a similar logic governs decisions of minority investors in family businesses. The key difference is that the agreement is not explicit, and that the value placed on social capital is unclear. Advanced jurisdictions frown upon such non-explicit arrangements, because of ethical standards, but also because they risk expropriating the taxman when remuneration takes place through inflated costs. Thus there is a considerable body of financial auditing practices aimed at detecting cases of confiscation and expropriation. The next section uses a simple accounting scheme to conceptualize ways in which social capital can be remunerated.

4; REMUNERATING SOCIAL CAPITAL

Regulatory, judicial and fiscal systems in advanced market economies are designed to force companies into maintaining transparent accounts, in particular to protect minority shareholders from asset expropriation and rent confiscation by majority owners (e.g., AICPA ,2001; Bushman and Smith, 2001; Bushman et al, 2004; FASB, 1982; Gordon and Palia, 2004; Hirst and Hopkins, 1998; Sherman and Young, 2001). Figure 1 shows a simplified version of corporate accounts annotated with the kind of questions that may be asked by an auditor looking for signs of expropriation and confiscation.
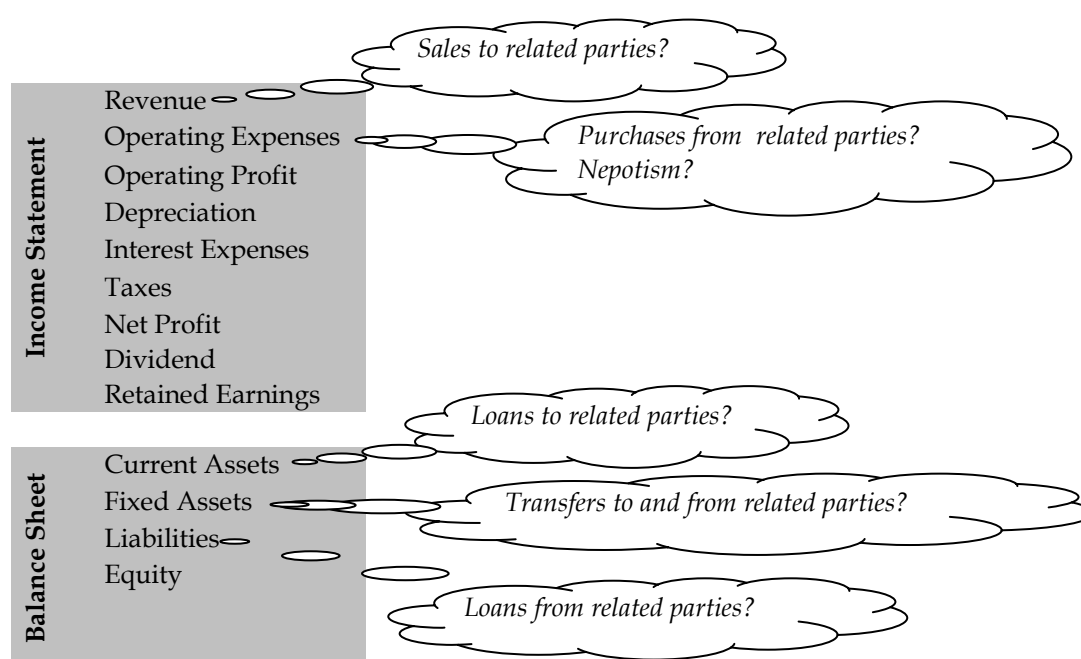
Figure 1.   Expropriation Audit.

The firm's profitability, and therefore all shareholders, including minority ones, can be hurt when products or services are sold at a cost lower than the fair market value. If such sales are made to an entity in which the controlling shareholder has an interest greater than in the focal

firm, then the possibility of confiscation arises. For example, if a family owns 60% of the seller and 80% of the buyer, then by causing the seller to under-price it transfers profits from an entity in which it would partake in only 60% of the profits to an entity where it can claim 80%. Hence the auditor's focus on sales to related parties. The same reasoning goes for purchases from related parties, where the danger is of overpaying for goods and services acquired from an entity in which the controlling shareholder has a stake greater than in the focal company. A particular form of such transaction is nepotism, paying for employment of a kin of the controlling family with a salary above fair market value.

Loans to and from related parties both follow the same kind of logic. There is the possibility of loaning money cheaply (or extending payment terms) to entities in which the controlling shareholder has a greater stake, and in borrowing expensively (or shortening payment terms). Transfers of assets to and from related parties are also a potential instrument of expropriation. They can be bought too dearly or sold too cheaply to an entity with a greater stake by the controlling shareholder.

The central thesis of this paper is that in some situations what would otherwise appear as an illicit transaction aimed at confiscating rents or expropriating assets from minority shareholders may in fact be viewed by those as "legitimate" remuneration of the controlling family's social capital vested in the firm. Conceptually, this may be captured by amending Figure 1 as shown in Figure 2. Several conceptual categories, printed in bold, have been added to the company's income statement and balance sheet. They call for brief definitions.
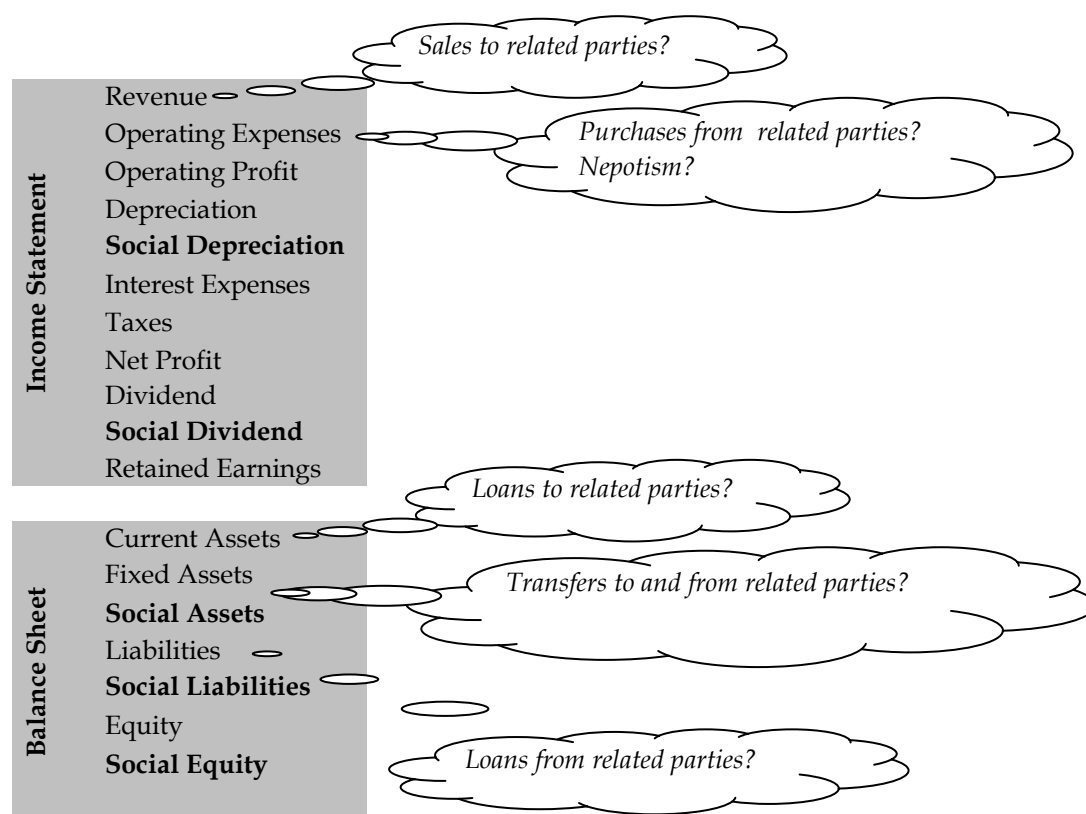
Figure 2.   Social Capital Audit

Social assets are advantages stemming from the controlling family connections that produce benefits to the firm. An exclusive license or import barriers obtained from the government are examples of such assets. In corrupt economies such assets are generally associated with a

corresponding liability, such as remunerating the official that granted the favor. Such a liability can be assumed directly by the family, for example by setting up an unrelated business with an official's kin. In some cases, however, the liability may be assumed by the focal firm, giving thus rise to a social liability. The difference between social assets and social liabilities forms social equity: the net social capital invested by the family. Social equity entitles to a social dividend: economic benefits derived by the family above and beyond the amount based on its shareholding.

While many modern businesses treat depreciation as simply a fiscal advantage that shelters part of the income stream from taxes, originally the concept was used as a way of accounting for the costs of tear and ware of fixed assets, such as machines, creating a reserve to eventually replace them. Social assets may also have this kind of cost associated with them. In the complex web of mutual obligations that characterize social networks some social capital flows from IOUs: favors owed in exchange for past services. Such form of social capital decreases in value when used and/or with time, and therefore it is appropriate to think of a "replenishment reserve" or social depreciation.

This completes the conceptual scheme to incorporate the notion of social capital into an accounting view of the firm. The auditor's annotations in Figure 2 and those in Figure 1 are identical, looking for dealings with related parties. This is because from a purely formal point of view it is impossible to distinguish between vulgar "cheating of minority shareholders out of their due" and "paying for social capital vested in the firm." Indeed, the distinction between the two is based on knowledge that firm advantages are due to the controlling shareholder's social capital and on the assumption that the minority shareholder accepts to pay for that capital. Indeed, confiscation and expropriation on one hand, and remuneration of social capital on the other, can co-exist. Controlling shareholders may cause the firm to pay them a "legitimate" remuneration for their social capital, but also take advantage of their control to simply steal from their partners. This confirms the widely accepted notion that it is difficult to construct operational measures of social capital (e.g., Schmid, 2002).

The concept of "related party" (La Porta, Lopez-de-Silanes and Vishny, 2000; La Porta *et al.*, 2002; La Porta, Lopez-de-Silanes and Zamarripa, 2003) is crucial to the auditor's task of detecting the various forms of payment for social capital. In legal terms it is a fairly simple concept to render operational. For example, one may define a related party as an entity or a person owned in part, directly or indirectly, by an owner of the focal business or his kin; or a person related to an owner of the focal business. But even in advanced modern economies such as France a definition of this sort fails to capture favors traded among members of a group such as alumni of an elite school or members of a particular professional corporation.

In the murky waters of a corrupt economy such as Indonesia under the reign of Suharto the concept becomes even more difficult to capture. For reasons already discussed families such as the Salims have strong incentives to keep much of their business empire opaque to the outside world, owning entities through straw men or foreign holdings. A fortiori corrupt officials selling public privileges for private gain have little incentive to appear involved.

5. CONCLUDING REMARKS

In the era when Corporate Social Responsibility became fashionable, it is well worth remembering that corrupt societies lead to corrupt business practices. Many of those practices – indeed those that are most profitable – consist in cronies of power-holders arranging for

advantages that give their businesses a competitive edge. This is transforming a social capital vested in personal relationships into a business asset. Therefore, the concepts of social capital, social dividend and other related concepts, even if difficult to measure, provide a valid way in which to think about businesses in many transitional economies and beyond.

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HUNDRED STRATEGIES, ONE STRATAGEM – AN INQUIRY INTO THE CROATIAN APTITUDE TO STRATEGY PRODUCTION

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1. DEVELOPMENT MANAGEMENT – A (PRE) TRANSITIONAL PROBLEM

Development ought to be managed. Economic and social theories have been written about it and it has long been proved that activities which are rationally undertaken by individuals ordinarily do not merge into a result that is socially rational. Equal individual efforts and adequate cooperation and coordination may accomplish more and in a better way. This is not doubted by theoreticians and certainly not by methodologists who are supposed to come up with methods for accomplishing the most socially acceptable development. Practitioners in ministries and in planning organizations, who have to ensure the said coordination one way or another, are also in no doubt.

As for transition Croatia, many will agree that almost everything that is not good, is so because it is not being managed. Further more, since there is no painless and obviously no fast transition, and since too many things go wrong, an ongoing discussion has been developed about economic and social development, about its directions and aims and even more about the means of managing it. Economists that deal with Croatian development notice that their research topic is not going well. Sociologists notice the same, let alone the environmentalists. The more difficult the situation is the fewer are those who will be satisfied with a cold analysis. Anyone, if only a bit sensitive, will try also to do something himself to improve the things he/she studies. Thus, even the academics, untouchable until recently, and the professors, who have always abhorred practice, involved in the discussion.

To enumerate the Croatian development judgements and management proposals may take some space. It is claimed, for example, that in Croatia the development is not managed and that policy measures are not well designed. It is claimed, also, that measures are probably well designed, but poorly implemented, and that there is no one to monitor their impacts. It is deduced therefrom that the part of the state administration that has to implement development policy is weaker than the part which creates it. It is claimed that break through transition can hardly be managed and that it simply has to be endured. Besides, we are knocking on the door of the European Union, which is not going to change because of us. We have no choice but study development guidelines that are coming from Bruxelles and implement them. It is claimed, also, that one should not hurry into Europe, that each knock on its door makes us lose a part of our identity, and that, therefore, the genuine Croatian way has to be found.

As for terminology, it is usually in inverse proportion to the level of analysis. The vocabulary of the documents that are well corroborated with facts, propositions, analysis and final

judgements is simple and familiar. However, the less analysis there is, the more difficult it is to produce a text. One resorts to comparisons and terminological innovations that depend on whether the subject is something favourable or unfavourable. When writing about something unfavourable, the authors resort mostly to medical terminology. "Disturbing symptoms" are noticed, the economy is in a "coma" and it needs an "injection" (financial, of course), the "sclerotic" and "vulnerable" economic system needs "shock therapy", the "seat of the illness" needs to be eliminated, and so on. The guidelines and measures required to recover and leave the hospital are described with more optimism. In doing so the role of a steersman is assumed, often even inadvertently so one easily falls into socialist industrialization and/or military terminology. Thus the "breakthroughs" that the "development locomotives" and the "production driving-wheels" will make are being determined, for which an adequate "logistics" are required in order to overcome different and, what is more, "entrenched" opinions. All of this is to be undertaken on the basis of a "strategy".

The strategy is, without any doubt, one of the best-loved topics in the discussion about Croatian development and its management. Battles have been fought over it ever since the independence of Croatia, while towards the end of the 1990s the remarks that Croatia in fact had no strategy at all and that consequently there was no development, became more and more frequent.

As for the ideology, it should not be forgotten that immediately after abandoning the socialist system and acquiring independence, Croatian politicians in charge of development discarded every idea of socialist development management. Consequently, the political requests for abandoning any planning prevailed. In the beginning of the nineties even the spatial planners, who nobody had ever associated with the calamities of socialism, were cautious not to mention planning too much. The war, which could just confirm how much realsocialism was connected with aggressive nationalism, contributed to such a viewpoint. The war legitimised also fast, straight forward decision making and this was felt not only at the front line but also in the changes to the economic system.

As for the emotions, one should observe that at transition times everything pre-transitional is regarded as odious or at least unsuitable. One needs reminding here that the request for development management was made long before the transition and even before the socialism itself. Furthermore, the request for managing economic and even social development has been made many times in the course of history and it differed from case to case and from country to country. This fact could not be blurred even by the war and anti-socialist rhetoric.

The transitional difficulties convincingly eliminated the statements that growth of the Croatian economy may be left to the unrestricted actions of entrepreneurs in the free market. The discussion about development management, strategies and action plans started as early as the beginning of the 1990s. The actors in economic policy started to refer to development documents prepared at the end of the 1980s, and the first strategy, that is the development document drafted in independent Croatia, appeared in 1991. Very quickly, almost everyone who was dealing with future in his/her ministry, public company, trade union, party, non-government organisation, and other organizations, set about drafting, and preferably enacting officially, documents that carried the title of strategy, strategic development programme, national development programme and similar. In the second half of the 1990s such an inclination (fascination, rather) with strategies became prominent.

2. TOO LONG A BIBLIOGRAPHY

Over the past fifteen-odd years, Croatian strategic documents have been written by the order of the state administration (ministries and Government agencies or committees) for public companies, for counties, municipalities and, occasionally for an NGO. They were also written without commissioning, out of the need to make a contribution or, on the other hand, to impose or at least offer it to a ministry or to the Government directly. The Government and the ministries would accept most of such documents, but they did not forward all of them into the procedure of adoption. Some of the forwarded documents were adopted by the Parliament of the Republic of Croatia, while others were not. Some of the adopted strategies were subsequently published in the National Gazette, and some were not. As regards the non commissioned, self-developed strategies, the majority of them appeared in professional and even in scientific publications that, of course, did not commit anyone to anything. In any event, this sort of literature in Croatia is neither collected nor listed by anyone.

Let us focus here on strategic development documents that deal with particular sectors of the economy or with particular social activities, pertaining to the entire area of the Republic of Croatia and commissioned by an agent of development policy that is a Croatian state administration body. Entering the discussion on the development and its management in this way means also turning to some strategies written before the independence. At the end of the 1980s one could come across development proposals that depicted the Croatian (but not the Yugoslav) economy with many entirely non-socialist characteristics such as privatisation, development of a modern market, new banking system and more. The best example of them is the development project titled Scientific Foundations of the Long-term Socio-economic Development of Croatia, which was undertaken from 1986 until the beginning of 1991. It was a huge task embarked on by a dozen of scientific-research institutions, commissioned by the then Self-Managed Interest Association for Science of Croatia and the Republic Institute for Social Planning. After five years, some 6000 pages of text were written and 22 out of 31 planned studies published. A voluminous summary titled *The Concept and Strategy of the Long-Term Socio-Economic Development of Croatia* was also produced. Neither the Parliament nor the Government has ever officially dealt with them, and consequently they were not published in the National Gazette. Upon the establishment of the Republic of Croatia the client disappeared and along with him also any obligation to translate the development proposals into action plans and measures.

However, even a cursory review reveals that *The Concept and Strategy...* were equally relevant before and after independence and the push-off into transition. Thus, in the beginning of 1991, the brand new agents of Croatian development policy had at their disposal 22 sectorial strategic documents whose subject was the economic and social development of Croatia. Policy decisions that followed did not provide any evidence that the documents of the 1980s were consulted. There is enough evidence about new strategic documents, however. By the end of 1991 three of them had been adopted:

Economic Policy Programme for the year of 1991

Medium-Term Plan of the Development of Croatian Railways, 1991 – 1995, (National Gazette 38/91)

and

Plan of Long-term Development of Post and Telecommunications in the Republic of Croatia Until the Year 2000 with the Medium-term Development Plan for the Period from 1991 – 1995, (National Gazette 51/91)

During the year 1991, the newly established company Hrvatske ceste (Croatian Roads) assessed that a long-term development document should be prepared. The document would determine the future of the public roads network in Croatia. Subsequently the

Preliminary Financial-Economic Study of the Construction of Motorways in Croatia, Zagreb, Civil Engineering Institute of Croatia, Croatian Roads, Zagreb, 1991,

was prepared in the middle of the year, followed by the

Plan of Maintenance and Development of the Public Roads Network in the Republic of Croatia for the Period from 1991 to 1995, with Basic Development Elements until the Year 2000 (National Gazette 52/91)

In this way, the discussion about development and its management officially included roads. The statement that a road inevitably means development has not to the present day been examined seriously, at least not in official development documents.

At the end of the year 1991, the

Fundamentals of the Economic Policy at the Turn of 1991 and 1992, with a Programme of Measures, Institute of Economics Zagreb, December 1991,

was made serving the needs of the Government of the Republic of Croatia. As early as 1992 the first strategic document followed which dealt with the entire Croatian economy. In March the

Concept and Strategy of the Economic Development of the Republic of Croatia, Economic Trends and Economic Policy, National Bank of Croatia and Institute of Economics Zagreb, 10/1992,

was made for the Bank's internal use. It was conceived macroeconomically and dealt with privatisation, transformation, monetary, banking and financial systems, structural changes in economy, technological development, human resources, the environment and infrastructure. In 1992, the

Proposal of the Development Strategy of the Tourism Sector of Croatia, Ministry of Tourism and Trade, Agency for Restructuring and Development, Institute for Tourism, Zagreb, 1992,

was produced for the Ministry of Tourism. Of the noncommissioned strategy proposals published in 1992, one came from the highest possible level. It was

Traffic Valorisation of Croatia, Croatian Academy of Arts and Sciences – Scientific Council for Traffic, Zagreb, 1992.

The Croatian Academy of Arts and Sciences also published documents of a strategic development character later. Despite the reputation of the institution, it was not recorded that the agent of development policy had ever adopted any of the Academy's proposals. By the end of 1992 the Government prepared another:

Economic Policy Programme

which was adopted in Parliament in December 1992. By the end of the year 1993, however, the

Development Strategy of the Croatian Tourism (National Gazette 113/93)

was adopted, and the Ministry of Tourism was the first that turned to a foreign drafter. In the same year, a mixed group of Croatian and Austrian experts prepared the

Tourismus Masterplan Kroatien, Institute for Tourism and Horvath & Horvath Consulting, Zagreb, 1993.

The Croatian Railways followed the example, and turned to a Swedish specialized consulting conmpany. At the end of the year 1993, the

Study on the Reconstruction of the Croatian Railways, Swedrail, Zagreb, 1993,

appeared followed by the well kown

Stabilization Programme, Governemt og the Republic of Croatia, October 1993.

Apparently no document of the strategic kind was made in 1994. Quite a few appeared in 1995, however:

Development Strategy of Agriculture of the Republic of Croatia, Ministry of Agriculture and Forestry and FAO (adopted by the Parliament of the Republic of Croatia at the end of 1994, never published in the National Gazette),

Long-Term Plan for the Protection of Waters from Pollution (National Gazette, 22/95),

Declaration on Environmental Protection in the Republic of Croatia (National Gazette, 34/95),

Programme for Reconstruction and Development of the Passenger Fleet in the Period from 1996 to 2000, Jadrolinija, Rijeka,

National Programme of Demographic Development of the Republic of Croatia, Ministry of Development and Reconstruction, (adopted by the Parliament in May, 1995, never published in the National Gazette).

The production increased over the next years. In 1996, the

National Scientific-Research Programme for the Period from 1996 – 1998, (National Gazette 16/96),

was adopted by Parliament. For the needs of the Ministry of Development and Reconstruction and the Ministry of Maritime Affairs, Transportation and Communications, the following documents were prepared:

Development Strategy of Road Network in Croatia, Ministry of Development and Reconstruction, Ministry of Maritime Affairs, Transportation and Communications, Zagreb, 1996,

and the

Development Study of Croatian Harbours, Rotterdam Maritime Group, Zagreb, 1996.

In summer of 1996, the Ministry of Economy published the first results of a project initiated two years ago. The project was titled the "Development and Organisation of the Croatian Power Supply Sector – PROHES", and entrusted to the "Hrvoje Požar" Institute of Energetics. The first document was

Fundamentals of the Power Supply Policy of the Republic of Croatia Until the Year 2010, Zagreb, June 1996.

As two years earlier, and equally unbindingly, the Croatian Academy of Arts and Sciences produced two more strategies:

Road and Rail Transport Corridors in the Area of Croatia and Bosnia and Herzegovina, Croatian Academy of Arts and Sciences, Zagreb, 1996,

Present State and Future of Croatian Railways, Croatian Academy of Arts and Sciences, Zagreb 1996.

The following year two more strategic development documents were adopted by the Parliament:

National Island Development Programme, Ministry of Development and Reconstruction, Zagreb 1997, (adopted by Parliament on 28 February 1997, never appeared in the National Gazette),

and the

Spatial Planning Strategy of the Republic of Croatia, Institute for Spatial Planning, Ministry of Spatial Planning, Construction and Housing, Zagreb, 1997 (adopted by Parliament on 27th June 1997, never published in the National Gazette).

That year a discussion commenced on the routes and length of the future motorways, and the future of railways. The following was prepared:

Report on the State and Development Possibilities of the Road Network in the Republic of Croatia, with Reference to a Possible Sequence of Motorway Construction, Croatian Roads Directorate, Zagreb, 1997,

Development Strategy of the Rail Transport System of the Republic of Croatia, Transport and Communications Institute, Zagreb, 1997.

Development Strategy of the Rail Transport in the Republic of Croatia, Croatian Railways – Development and Information Technology Department, Zagreb, 1997.

The same year, CANAC, a Canadian consulting company, prepared the

Study on the Reconstruction of Croatian Railways, Zagreb, 1997.

At the end of December 1997, the Government of the Republic of Croatia took up the matter of gender and adopted a document titled:

National Policy of the Republic of Croatia for the Promotion of Equal Opportunities, The Equal Opportunities Commission of the Government of the Republic of Croatia, Zagreb, 1997.

In 1998 the Parliament adopted two development programmes of a long-term character:

Horse Breeding Programme in the Republic of Croatia, (National Gazette 99/98),

Programme of Return and Taking Care of Refugees and Displaced Persons (National Gazette 92/98).

The discussion about roads and railways went on. For the needs of the Ministry of Maritime Affairs, Transportation and Communications, the following was prepared:

Development Strategy of Road Network in the Republic of Croatia, Institute of Economics Zagreb, Zagreb 1998,

Project of Modernisation and Restructuring of the Croatian Railways, Ministry of Maritime Affairs, Transportation and Communications, Zagreb, 1998.

In 1998, the first results of the project started four years earlier by the "Hrvoje Požar" Institute of Energetics were published. In the beginning of the year, the

National Power Supply Programme: the Introduction, Goran Granić, "Hrvoje Požar" Institute of Energetics, Zagreb, 1998.,

was published, and thereafter

MIEE – Network of Industrial Power Efficiency, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

MAHE – Programme of the Construction of Small Hydro electrical Power Plants, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

ENWIND – Programme for Wind Energy Usage, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

SUNEN – Programme for Solar Energy Usage, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

KUEN zgrada – Programme of Power Supply Efficiency in Building Construction, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

KUEN cts – Programme of Power Supply Efficiency of Centralised Heating Systems, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

KOGEN –Co-Generation Programme, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

GEOEN – Programme for Geothermal Energy Usage, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

BIOEN – Programme for energy from Biomass and Waste "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998,

PLINCRO – Gasification Programme of Croatia, "Hrvoje Požar" Institute of Energetics, Zagreb, April 1998.

This package of programmes had a common mark "the preliminary results and future activities", so that further production of strategic development documents was to be expected in the energetics sector. At the end of 1998, the members of cooperatives also turned out. The Croatian Cooperative Association published the

Development Strategy of the Croatian Cooperatives, Croatian Cooperative Association, Zagreb, 1998.

The Parliament adopted two more strategic documents in 1999:

Traffic Development Strategy of the Republic of Croatia, (National Gazette 139/99)

Strategy and Action Plan for the Protection of Biological and Landscape Diversity of the Republic of Croatia, (National Gazette 81/99),

According to an obligation arising from the Spatial Planning Strategy of the Republic of Croatia of 1997, the

Spatial Planning Programme of the Republic of Croatia, Spatial Planning Institute, Ministry of Spatial Planing, Zagreb, 1999,

was produced. Upon the initiative of the Ministry of Health, a foreign drafter was contracted and the

Health Care Systems in Transition-Croatia, European Observatory on Health Care Systems, Zagreb, 1999,

was published. After the elections of 2 January 2000, and the change in Government, the new Government of the Republic of Croatia published:

Programme of Activities of the Government of the Republic of Croatia for the Period from 2000 – 2004, the Government of the Republic of Croatia, January 2001.

The Programme advocated an important change in the development policy in its entirety, and announced reduction in strategy production down to one single strategic document. In the same year, however, the Croatian Roads Directorate, officially, and the Croatian Chamber of Economy, unofficially, provided more contributions to the ongoing discussion about roads and their effects on development. The published studies are as follows:

A Consolidated Study of the Financial and Market Feasibility of the Construction of Motorways in the Republic of Croatia, Croatian Road Directorate, Civil Engineering Institute of Croatia, Institute of Economics Zagreb, 2000.

Traffic Development Strategy of the Republic of Croatia, Croatian Chamber of Economy, Zagreb, 2000.

The following studies were commissioned by the Croatian Railways and the Ministry of Health, respectively:

Study of Modernisation and Restructuring of Croatian Railways, RAILPLAN, Zagreb, 2000,

Strategy and Plan for the Reform of the Health Care and Health Insurance System in the Republic of Croatia, Ministry of Health of the Republic of Croatia, Zagreb, 2000.

The Croatian Academy for Arts and Sciences initiated and published the

Baltic – Adriatic Initiative, Croatian Academy of Arts and Sciences, Zagreb, 2000.

The implementation of the announced change of the Croatian Government's policy started at the end of July 2000 when the Development Strategy Office of the Republic of Croatia was established (National Gazette 77/2000). The Office was founded as a "professional service of the Government of the Republic of Croatia set to perform technical and administrative tasks related to the development strategy project for the Republic of Croatia: "Croatia in the 21st Century".

The Office launched a project that surpassed all the previous. Titled "Croatia in the 21st Century", it was supposed to gather all the people who have something to propose. It was made known that the Office would consider all the proposals sent to it, and eventually produce a single strategy that the agents of the development policy in Croatia would be obliged to implement. The participants to the discussion on Croatian development management were given a unique opportunity to present their views and proposals.

The number of proposals that ever reached the Office remained unknown. In any case, after a couple of months the Office engaged 335 various experts with the task of producing 19 sub-

strategies and the final long expected single national strategy. A year and a half later 19 sub-strategies did appear covering *health care, social care and pensions, transportation, power supply, state administration, international integration, national security, economy, macroeconomics, education, science, tourism, culture, environmental protection, maritime affairs, shipbuilding, alimentation, housing construction and information and communication technology.* They are still available at www.hrvatska21.hr. A single strategy, often referred to as THE strategy never appeared.

The production went on, however, unhampered by the Office or anyone else. In the year of 2000,

Programme of Measures for Economic Reform and Growth, International Bank for Reconstruction and Development, February 2000

appeared, followed by

National Mine Action Programme in the Republic of Croatia, Croatian Mine Action Centre, Sisak, 2001,

Development Programme for Small Trade, 2001 – 2004, Ministry for Crafts, Small and Medium-Sized Entrepreneurship, Zagreb, May 2001.

and the

Strategic Plan 2001 - 2005, USAID - United States Agency for International Development/Croatia, Zagreb, January 2001.

The agent of the development policy set by the USAID Strategic Plan was not to be a Croatian implementation body but the USAID itself. American experts were supposed to directly support local self-government, democratically oriented political parties, trade unions, media, NGOs, and advise ministries and the deputy prime minister. They also decided to help the macroeconomic and structural reforms that contribute to private sector development, support settling into routine the state treasury and further fiscal decentralisation, help in putting in order cadastre and land register and cooperate closely with the World Bank. No Croatian experts were envisaged in the process. Consequently, the USAID product was published only in American English.

The production went on, however. Five new models appeared in 2002, some resulting from the said 19 sub-strategies, some not:

Strategy of agriculture and fisheries of the Repunblic of Croatia (National Gazette 89/02)

National Strategy for Environmental Protection (National Gazette 46/02)

National Environmental Action Plan (National Gazette 46/02)

Development Strategy for the Energy Sector of the Republic of Croatia (National Gazette 38/02)

Defence Strategy of the Republic of Croatia (National Gazette 33/02)

National Security Strategy of the Republic of Croatia (National Gazette 32/02)

National Forestry Strategy and Policy (National Gazette 120/03)

In 2003 and 2004 only three strategies appeared in the National Gazette:

National Strategy for pension system and social care services (National Gazette 97/03)

National Strategy of unified policy for disabled persons for the period from 2003 to 2006. (National Gazette 13/03)

Development Strategy for Wood and Paper Processing Industry (National Gazette 114/04)

The year of 2005 was more fruitful:

National Strategy for Prevention of Misuse of Narcotics (National Gazette 147/05)

Waste Management Strategy of the Republic of Croatia (National Gazette 130/05)

Development Strategy for the official statistics servise of the Republic of Croatia 2004.-20012. (National Gazette 28/05)

and so was the year of 2006:

Communication Strategy for Informing the General Public on EU accession (National Gazette 13/06)

National Programme for Road Transport Security 2006-2010, (National Gazette 24/06)

National Anti–Corruption Programme 2006 – 2008. March 2006 (National Gazette 39/06)

Strategic Development Framework for 2006 – 2013, July 2006

Strategic Development Framework was produced by the Development Strategy Office of the Republic of Croatia which in the meantime underwent serious personnel and conceptual changes. The Framework was a substitute for the National Development Plan, a document that on request of the EU is supposed to be produced in every accession country. In 2006 the Government of Croatia also turned to gender issue again. The result was the

National Policy for Gender Equality Promotion, The Government of Croatia – Office for Gender Equality, Zagreb, 2006.

One is not surprised but it should be noted that gender strategy of 2006 makes no reference whatsoever to the gender strategy produced in the s**ame country and by the same Office in 1997.**

3. ALL THE PRESIDENT'S MEN

In the middle of February 2000, immediately after the election of the new president some new features appeared on www.predsjednik.hr. The president, namely, established five working groups and entrusted them with producing the development documents that would tackle the future of particular sectors of the Croatian society. They dealt with Constitution amendments, agriculture, sports, development of IT, promotion of Croatia and the Croatian youth. In no less then a year they produced the following:

Foundations for amendments to the new Constitution of the Republic of Croatia, Office of the President, Zagreb, April 2000 .

e-Croatia – Proposal on the Informatisation Strategy of Croatia, Office of the President, Zagreb, June 2000

Proposal on the Development Strategy for Agriculture and Areas of Special State Concern. Office of the President, Zagreb 2000

Proposal on the development strategy for the areas of special state concern, with special reference to the Danubian region Office of the President, Zagreb, 2000

Development Strategy for Fishery in the Republic of Croatia, Postira, Office of the President, June 2000

Development Strategy for Agriculture in the Mediterranean Area, Office of the President, Poreč, June 2000

Proposal on the Development Strategy for Sport in Croatia, Office of the President, Zagreb, 2000

National Programme of protection and promotion of children, youth and young people in the Republic of Croatia in the period of 2001 – 2002. Office of the President, Zagreb, 12 August 2001

To the bibliography of Croatian strategies, approaching a three-digit number of units after barely fifteen years of production, another 8 development documents thus may be added. It is easily noticeable, however, that not one of the 48 president's men grouped in 5 working groups appears among the authors of the sub-strategies of the project "Croatia in the 21st century". Consistently, none of the authors **of the sub-strategies participated in the groups that drafted the president's products.**

4. IMPLEMENTATION PROBLEM

Since this is all about the future, one should ask what the listed strategies, long-term programmes and national plans have to contain in order to deserve their titles, and what elements have to be met so that the future they seek becomes about. It is obvious, namely, that a strategic document is only one of the elements of efficient development management, and that it implies also implementation documents, an implementer with implementation instruments in his/her hands who can undertake implementation measures; it includes monitoring the effects of the measures, and supervision of the entire process. An important element is also the participation of the citizens. In a democratic society an insight into the implementation of the adopted strategic orientations has to be made available to everyone.

Regardless of the possible value judgements, and even ideology it may implicitly or explicitly advocate, a strategic development document should contain the answers to some basic questions:

- does the document define basic notions?
- does it determine the principles of development management?
- does it define the goals?
- does it deal with the past and the state of the area/field it deals with?
- does it make any prognosis, value judgements, projections?
- does it define instruments and measures; does it propose laws to be passed that would raise the obligatoriness of the measures to the highest level?
- does it examine the capacity of implementers (if any have been specified)?
- does it contain an action plan or a management plan, and if it does, are the time limits set, the jobs and tasks distributed, the agents identified, and are the sources and modes of financing determined?
- is there any monitoring proposed?
- is it a readable text, a material that shall educate a reader?

There are a couple of formal questions too:

- is it preceded with a law or a decree of the Parliament or the Government of the Republic of Croatia ?
- who initiated its drafting (a ministry, a public company, etc.)?
- do NGOs participate in the drafting?
- did it appear in the National Gazette thus becoming an official, i.e. obligatory development document?

Some of the answers may be read directly from the thousands of pages of the Croatian development strategies, some are vague or implied in the text and some are to be found in chapters where they, one would say, do not belong. It may be often indirectly concluded that the authors worked out the main conceptual framework but they did not, regretfully, explicate it anywhere. Barely one half of the collected documents, for example, define in their introduction part the notions which will later be used to express strategic orientations. On the other hand, practically all the documents state development goals and principles. However, an analysis of goals shows that goals and principles may be notionally mixed up, and that particular expected accomplishments get mixed up with processes that need to be established and maintained. That is, it is often not clear whether a goal is understood to be a state that is

to be achieved or a development route that must be insisted on. This vagueness later on influences the formulation of the development guidelines. Therefore, it is sometimes difficult to see what the difference is between the stated principles and the derived guidelines at all.

The production of strategic documents is most often initiated by ministries and public companies, and rarely by the Government of the Republic of Croatia itself. Since the ministries can rarely assign their own civil servants for such a task, they regularly employ experts and scientists from institutes or faculties, and much more seldom foreign consultants. Due to the fact that the production of a strategic document may last more than a year, and it needs to be coordinated, the ministries and public companies avoid the individual engagement of an expert, and more gladly appoint for the whole task an institute, a bureau, a faculty or similar (NGOs stay out of this business, except in cases of strategic documents in the field of the environment protection). The production of strategies thus does not disturb the everyday life of the civil service, and the responsibility for the result rests entirely with the producer.

There are very few documents that had to be produced as a result of a law or a document which prescribe that another law be passed afterwards. A good example is the Law on the Environment, which prescribes the production of a strategy, and on the other hand the National Island Development Programme that prescribes an Island Act to be passed (the environment strategy was produced, and the Law on Islands was adopted in 1999, two years after the adoption of the National Programme by the Parliament). As regards the international conventions that are binding for the Republic of Croatia, they are only referred to by a strategic document that deals with the environment.

Out of the collected strategies, programmes and long-term plans, 11 were published in the National Gazette in the 1990s and 16 in the new millennium. What catches the eye is that there are four documents adopted by Parliament, but they were not officially published.

The collected strategic documents are at their best in their starting chapters. The evaluation of the past development is usually extensive, whereas economic strategies usually bring chapters with prognoses and projections that do not reach further than 5 years into the future. The strategies in other fields most often are limited to prognoses. What should be done to realise projections and prognoses, this is a question that relatively little attention is paid to. The instruments that are formally at the disposal of the implementer are mentioned in most strategies, but the competence of the implementer is considered in none of them. It remains unknown whether the implementer (whether a ministry or a public company management board) has enough officers at its disposal, whether they are educated and acquainted with the job, whether IT support is adequate, whether the required information is collected and so on. Consequently, none of the collected strategic documents deal with monitoring and evaluation. It remains unknown who shall monitor their impacts and how, what criterion will be applied in evaluating the measures and their instruments and how the measures whose impacts are not satisfactory will be changed. The monitoring and evaluation of instruments and measures is missing even in strategic documents that contain an action plan. This is so even in the case of the strategies in the field of the protection and improvement of the environment, that are produced according to the model of European and American documents of the same kind so that one could expect to find M&E there. In a word, anything that might look like an institutional analysis has been completely missing from the Croatian strategic development documents since 1991 till now days.

Strategic documents that determine sources and modes of financing are also rare. The sources that are perhaps mentioned are the state budget and foreign donations, while other possibilities are hardly discussed. Apparently, this aspect of development management is left to the implementer and to his/her ability to find the necessary budgetary means. One will search in vain trying to find the items in the National budget that refer to the implementation of strategies adopted in previous years. Introduction of programming budgeting in 2003 does not seem to have brought any improvements in this sense. Strategies prepared from 2003 onwards obviously require some money for their implementation but this is not to be found in the National Budget. The neglect of financing is partly a result of the neglect of the implementer. Since the guidelines are usually written in the form of "it needs to …" and "it is expected to …", without precisely addressing the implementer, the fact that finances are left out is not obvious. Operational summaries, which are a regular practice in foreign production strategies, are rare in Croatian ones, there is no accepted bibliographic standard that the editors adhere to, the language is usually dull, the vocabulary technical and unfamiliar to the uninitiated reader.

The strategies can be placed into different groups. As one would have expected, the most frequent topic is the economy and how to improve it. Five strategic documents on the construction of roads may surprise only those who are not familiar with the construction industry sector in Croatia and its influence on development decisions. Seven railways strategies may surprise only those who are not familiar with the state of Croatian Railways. On the other hand, social issues are poorly covered. One of 24 ex-socialist studies from 1990 is about education and one had to wait for ten years to find something similar. "Croatia in 21 Century" project contains sub-strategies on education, health (the Ministry of Health produced a separate one, as well), culture, and social care. Two strategies on gender equality are recorded. There is also the Programme of Return and Taking Care of Refugees and Displaced Persons from 1998, and that is all. The social aspects of overall development which need most careful programming have been payed least attention. Old ideas about growth which necessarily brings development seem to be still alive, even kicking.

Among the producers of the strategies that were not commissioned by the state administration the majority are economists, and a particular place is taken by the Croatian Academy of Arts and Sciences. In spite of the proverbial shortage of money the Academy works in, it produced four documents of strategic importance.

A strategy, as it is often emphasised, in its original meaning is the "art of conducting a war". Moreover, one may find in vocabularies that it is "manoeuvring forces into the most advantageous position prior to actual engagement with the enemy". This is, so it seems, an exclusive male business, so it does not hurt to investigate how many women have been involved in it. The two biggest projects in the field may be used to illustrate this, the Scientific Foundations of the Long-term Socio-economic Development of Croatia, from the end of the 1980s, and "Croatia in the 21st Century" from 2001.

Thumbing through the nowadays already dusty volumes of the Scientific Foundations, one will notice that 239 collaborators and 86 collaboratresses (73 : 27) worked on the project. Since the coordinators and the editors were listed separately from the authors, one may notice that there were also 204 authors and 80 authoresses (61 : 39). Among 31 sub-editors there were 4 women (87 : 13), and among 10 coordinators two were women. Some ten years later "Croatia in the 21st Century" and its 19 strategies were initiated. The coordinators composed the Central Council of the project. Browsing through the site www.hrvatska21.hr, one notices

that 18 coordinators and a male president of the Council make company to only one woman. Some participants in discussion about development and its management would call this a gentleman's trend. Fifteen years ago on average 4 male coordinators would hold one lady's coat, and nowadays they are as many as 18. The situation is no better even among those who do the actual job. The share of authoresses fell from 39% to 29%.

The questions that need to be asked when standing in front of a hundred strategic development documents are not yet exhausted. One of the more important is definitely on internal consistency. Namely, if a strategy is internally inconsistent even the best functioning implementation mechanism would not help. However, this is a necessary, but not a sufficient condition since internal consistency does not guarantee per se that the strategy is good and acceptable, but only that the tasks before the implementer are not adverse to each other. If a strategy is internally consistent, only the first step on the way to the successful development management has been confirmed. The remaining steps will depend on the implementer.

It is not easy to answer with certainty how many strategies of the ones collected are internally consistent, and how many are not. A document picked up at random show that the authors controlled their work and that the final instructions are harmonised among themselves. Almost each of the examined strategies may be implemented if only it were supplemented with an action plan and supported with an adequate budget. The question that definitively has to be answered is the one about the internal consistency of a pile of strategies that has been growing ever since 1990. Although it is difficult to assume that almost a hundred strategic documents (the coordinated documents are only those from the Scientific Foundations project of 1990, and those from the Croatia in the 21st Century project) may be mutually harmonised, one should at least hope that sub groups of strategies produced about the same topic, that is within the same sector, could be harmonised. An insight into sub groups shows, however, that they are equally inconsistent as the big pile they belong to.

Between the strategic documents in the same sector that are supposed at least to refer to the previous ones but do not, there are two strategies on health care that need to be singled out (the strategy of the Ministry of Health and the one from the "Croatia in the 21st Century"), as well as the majority of the already mentioned road and railway strategies. It is readily observable that inter-harmonisation avoids precisely those documents for which one would expect mostly to be the case – the documents that predominantly or exclusively deal with the environment. The Spatial Planning Strategy of the Republic of Croatia of 1997, for example, explicitly and extensively deals with the Croatian islands and the preservation of the insular space, without mentioning the National Island Development Programme at all, although it had already been adopted by the Parliament at the time the strategy was written. The reason for it are not potential conceptual disagreements, but simply the low level of communication culture that is a characteristic of the majority of the producers of the Croatian strategic documents. Namely, the comparison of the Strategy and the Island Programme reveals that both documents refer to the more or less same principles of island development management, and that their development policy proposals are compatible. By referring to the National Island Development Programme, the Spatial Planning Strategy would have been better argued and definitely more convincing.

Environmental protection is a suitable field for questioning the coordination of strategy production. The environment is, more or less, directly or indirectly, the topic of the majority of strategic development documents, and those which deal with the environment directly, rely on, at least in words, international conventions. However, the often-quoted principle that we

have to take care of the environment as a public good together and in co-ordination, is not being implemented. Namely, the production of two strategic documents on the environment began during the year of 2000 and ended with joint appearance in the same issue of the National Gazette in spring 2002. The first was produced within the already mentioned "Croatia in the 21st Century" project as a sub-strategy and eventually titled the National Strategy for Environmental Protection. The second was produced by the then Ministry for Environment Protection and Spatial Planning in cooperation with the World Bank and its experts. It is titled the National Environmental Action Plan (NEAP). Having put them one next to the other, the two documents definitely deserve a little bit of attention.

The Environmental Sub-strategy for the 21st Century was produced by seven collaborators, three editors and one project director. The document has 84 pages. In contrast to these eleven people, the NEAP had a Managing Council composed of eight members and headed by the Minister for the Environment, two coordinators, a Project Unit in the Ministry for Environment Protection and Spatial Planning composed of 7 members, a World Bank team of two members and 139 collaborators who were organised in 10 working groups, and these into 29 sub-groups. The document produced has 298 pages including supplements (not even 2 pages per person). The two environmental strategies were produced simultaneously, but separately. Comparing the lists of authors, it turns out that only three of them worked on both projects, and the documents do not refer to one another at any stage. The differences that were, for that reason, inevitable may be noticed in contents and in the weight given to particular aspects of environment protection.

A comparison of these two texts shows that eleven authors that needed 84 pages to produce the Environmental Sub-strategy were sufficient to determine strategic orientation, to put together instructions for their implementation, to determine the action priorities, and to make a SWOT analysis of a system that should materialise all of this. The scope of the NEAP (this production was, obviously, many times more expensive) may be, on the other hand, justified with the emphasis on the action plan and the importance and space dedicated to the priorities. The comparison also reveals that both strategies are based on the concept of sustainable development, but that the sustainability is not equally defined, that they are not terminologically harmonised, and that NEAP's priorities are not well thought out. The best example of this is the approach to one of the largest burdens on the environment of the Republic of Croatia – land mines. The sub-strategy disregards the fact that 4,500 sq km of the country is contaminated with about a million mines (however, it is the only one that deals with genetically modified organisms), while the NEAP dedicates only two paragraphs to it: one in the section covering agriculture and forestry, and the other in the section on the influence of pollution on health. Thus demining appears in the list of measures to be taken. "Perform demining of agricultural areas within the period of 2 – 5 years" and "perform the strategy of demining of forests within 2 years" appears in the chapter 4.1.3. on agriculture and forestry. "Perform demining throughout the entire territory of Croatia within 2 years" says the chapter 5.4., which deals with environment and health. The state budget, the county budgets, the city and municipal budgets, the economic sector and international sources, all are listed as possible sources of financing this task without any specifications or dynamics. It should be mentioned that the National Mine Action Programme of the Republic of Croatia published in 2001, envisages that this work be done, at very best, in 10 years.

The quotation of financial sources is characteristic of both strategic documents, as well as for the most of the other documents produced since 1990. The sub-strategy claims that finances are necessary, but it does not quote a single figure, whereas the NEAP has doubts about the

figures it states. In the Chapter 9, when referring to implementation expenses it is reported that only 0.2 to 0.3 % of GDP in Croatia is allocated directly for the environmental protection today. The text goes on to say that the implementation of the NEAP requires at least 1% and that this is almost impossible to achieve.

In any case, a comparison of the two documents shows that the task could have been performed faster and cheaper by forming a pool of authors, and that had there been coordination it could have been internally consistent, even harmonised with other strategic development documents. The next question that has to be asked is seemingly a trivial one. It is rarely clear in the collected strategies and programmes WHOSE job it is. The answer: the strategy is ours, and we are all realising it, may satisfy only inasmuch as the document that has a prefix "national" or a suffix "of the Republic of Croatia" concerns all of us, so we are all interested in its realisation. At this point the general arrogation stops. The strategy that cites goals, that demands their accomplishment and names necessary instruments and measures, has to determine also who shall accomplish them and what are the consequences should they fail to do that. In this respect, the predominant number of Croatian strategic documents remains unclear, reflecting one of the problems that shall continue to burden the economies in transition and their societies in general: lack of readiness to analyse the institutional mechanisms necessary for the implementation of any kind of strategy, programme or economic and social policy in general. Present creators of the Croatian strategic documents still tend to address the task to an "implementer", to an "agent of development policy", to "the relevant ministry" and the like as if they were writing the document in the 1950s or 1960s when it was safe and normal not to mention the untouchable "implementer". The problem is to a great extent overcome only in cases when the strategic document adopted by the Parliament of the Republic of Croatia requires that a law be enacted. The ordered strategic jobs and tasks thus are raised to the highest possible level of obligatoriness, and a law can hardly be enacted if it does not contain stipulations about controlling its implementation, time limits and necessary financial sources.

Since 1990 up until now there have been more laws adopted in Croatia that determine the instruments and measures of the development management, than there have been development strategies written. They invoke the Constitution and/or some other law, but not a strategic development document. In addition the enacting procedure does not guarantee mutual alignment of the enacted laws. It does not even guarantee that the law shall be internally consistent. The amendments, in fact, depend on the deputies' vote, and there is no mechanism that would automatically prevent voting of an amendment that is contrary to another one, just voted for. An inconsistency thus can slip through, and even a cursory insight into the legislation that regulates development management points that it happens quite often.

Another point that the implementation of laws makes disputable is standardised last article which states that the law "Shall come into force on the day of the publication in the National Gazette" or "Shall come into force on the eight day following its publication in the National Gazette". This routine provision contains several preconditions necessary for the enforcement of laws, and with this also of development policy. It is presumed that all those who are supposed to start enforcing the law as of the day it is published, know what they have to do, that they are all present, that they have assigned the required time for it, established the necessary organisational scheme and provided the equipment. Regretfully, these suppositions are realised hardly anywhere and hardly ever, so that most of the laws start their life with difficulties and slowly, discovering the already mentioned inconsistencies along the way. The research on the enforcement of development legislation and its efficiency in Croatia is almost

non-existent. The laws come and go, and there is nothing to draw a conclusion from whether they were beneficial or not. The trust in the efficiency of law, the expectations of significant improvements that new laws are to bring along, and everything else that comes under the term "normative optimism" do not have much backing in the Croatian practice.

More than a hundred development strategies, never undergoing the process of harmonisation and definitely not harmonised and a part of the development legislation arising thereof, obviously are not a solid base for the management of Croatian development. However, development decisions are still being made. The final question to be tackled here is: how?

5. TOWARDS A STRATAGEM?

Standing in front of a bookshelf with a hundred disharmonised strategies, one could ask himself/herself what directives and what aims the many decision-makers of more or less important development decisions dispersed in various ministries, in the Government, public companies, and elsewhere, have in mind. If the strategies were lacking, their ability to make strategically sound decisions would have been questioned. Since the strategies are in abundance, what should be questioned is their capacity and willingness to act as democratically elected policy makers are supposed to.

In the years of the war and the beginning of the transition the question would have been answered straightforwardly since democratically elected policy makers where under quite a pressure. The circumstances were changing much faster than any one could manage to change strategies, action plans, laws, regulations and the rest and whoever was in charge had to act and only act. This was one of the reasons (not the only one, however) that led to the establishment of the semi-presidential system introduced by the 1990 and 1997 Constitutions. In 1997, the Defence and National Security Council (DNSC) was formed, a body whose members the president could appoint at his own discretion. The DNSC consisted of his advisors, the most important generals, the prime minister and some ministers, the Speaker of the Parliament, the governor of the National Bank of Croatia, and so on. In this way, all the decisions relevant for an overall development of the country could have been made at one table and under one coordinator. These could have been strategic or purely operational decisions, and their implementation was guaranteed by the composition of the Council itself. The President of the Republic, invoking the Constitution to remain the president of the party that had a majority vote in the parliament, could plan, induce, direct and even oversee all procedures and decision-making flows when deciding on the development of the country. The DNSC members promptly implemented everything that was agreed on in the sessions. If a piece of legislation was needed for the purpose, the authority of the Government to pass decrees with legislative powers and a legalised emergency parliamentary procedure allowed for a fast enough institutionalization of whatever was decided about at the DNCS. Although more than 50 strategic documents had already been piled up, they were scarcely referred to by anyone, while the important development decisions were made in a non-transparent manner and could not be found anywhere.

Many would agree that the wartime management of peacetime development had too many snares to be successful in the long run. They would also agree that its immanent lack of democratic features makes it completely unacceptable in a market economy environment. A minority would, however, adduce few of the "wartime" decisions that resulted in exceptionally favourable effects, as well as many "peacetime" decisions that brought nothing good at all. The best example to support this type of thinking and, seemingly, legitimise the

autocratic decision making, is the still topical anti-inflationary policy implemented in Croatia in the autumn of 1993.

The new millennium brought the new Constitution and the power of the president was significantly reduced. The new president's newly formed working groups readily started producing strategies showing, perhaps, that those who have executive power do not need strategic documents whereas those who lack power produce them. The decision making went on, however, so that one has to turn to the Government, main ministries and headquarters of the main political parties where decision makers have concentrated after the DNCS disbanded. At the beginning of the new millennium draft laws, government decrees, and other pieces of legislation that define taxes, fines, incentives, government spending and other instruments of economic policy have been designed and approved right there.

Decentralization of decision making and its shift towards democratic institutions implies involvement of much more agents than there were in the DNCS. It also implies democratic procedures, transparency and able public administration. One should not forget, however, that the public administration where the instruments are designed and approved is composed of professional civil servants, who mostly keep their jobs after the elections, and of politicians who get appointed every four years. In countries where the civil service is developed, the tasks of these two groups are elaborated and separate. The civil servants, helped by external advisors and collaborators prepare background materials for decisions, elaborate options for possible solutions and simulate the consequences of any given decision. A politician in power who has to make a final decision needs to evaluate the submitted options and their effects from a political point of view, and finally accept one of them.

As for transition Croatia, these tasks are not well apportioned. Civil servants are not necessarily competent or well organised, and decisions often have to be made quite abruptly. In such an environment politicians do not get (or can not wait for) enough input to make a good decision. The decisions actually adopted, on the other hand, too often bear testimony of a prevalence of short-term and pragmatic political interests over expert opinions. Therefore, in the past fifteen years, successful development management agent had to be quite a person. A successful minister of finance, for example, had to know everything about finances and economic policy and how to deal with his subordinate civil servants. He also needed to be a very able politician and survive in an environment of constant struggle for power, because the implementation of a measure or a so-called package of measures usually takes more time than the usual mandate would allow for. An agent of development management surrounded by the unknowns of transition process who wishes to do something, must be a leading expert, an exceptional manager and a very accomplished politician. Unfortunately, persons of such a renaissance reach have been rare in Croatian ministries and governments so that the chain that starts with a strategy and ends with a proper policy implementation have always missed a link or two.

Thus, it is no surprise that first six years of the new millennium brought 55 new strategic documents and hardly any implementation improvements. As well, it is no surprise that no one from the public administration ever reported any implementation results and that hardly any question on monitoring and evaluation of those who have to implement strategic documents has ever been posed in the Parliament. In the course of fifteen years production of strategies has established itself as an autonomous activity whereas those that had to implement them took the liberty of equally autonomous decisions making. The purpose of strategies is thus fulfilled regardless of their quality, internal consistency and clearness. They

appear as false indicators of a well managed development, look good in public and keep experts dependent on politicians. The fact that production of strategies is ordered, financed and adopted by those that are not implementing them tempts one to go back to the same military dictionary that the development terminology has been picked from. Next to "strategy" a term "stratagem" can be found there with an explanation that it is "an artifice or trick in war for deceiving and outwitting the enemy" or even "a cleverly contrived trick or scheme for gaining an end".

A glance at the list of strategic documents reveals that they have been more frequent in last couple of years and that they much more frequently appear in the National Gazette. Initial awe of producing something so important and nationally significant as well as initial bond that something that has appeared in the National Gazette is compulsory have disappeared. After fifteen years of facing no consequences for not implementing anything, one feels quite safe.

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ETHICS AND SOCIAL RESPONSIBILITY AS WEAKNESS OR STRENGTH ON THE MARKET IN TRANSITION

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1. INTRODUCTORY OBSERVATIONS

Can nowadays a firm survive in the competitive surrounding in spite of its acceptance of business ethics and social responsibility standards that are sometimes too high? Is it at all possible to talk about ethical and social responsibility standards that are too high at the beginning of the third millennium? Social awareness is developed concurrently with development of society and it corresponds to the higher level of assumed ethical standards and social responsibility. Rejection of these standards makes the long-term survival of any firm questionable.[1]

Competition in the global market is frightening today. Price wars sometimes push firms to the *verge* of bankruptcy.[2] Can an affirmative attitude be expected from competitors in terms of social responsibility and the accepted level of social responsibility in routine business operation?

How much does the acceptance of an adequate level of business ethics and social responsibility in business operation collide with merciless competition? Are ethics and social responsibility in transition countries markets utopia or competitive opportunity? The relations of global supply and global demand sometimes do not allow the possibility for acceptance of an appropriate level of business responsibility and ethics.

Competition is often unscrupulous. Is it a coincidence that in such cases changes take place on the market? Leaders lose part of their market share, while the share of some

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[1] Drucker, F. P., *Management Challenges for the 21th Century,* Butterworth Heinemann, Oxford, 1999.
[2] Ramsdell, G., *The real business of B2B,* McKinsey Quarterly, (3) 2002., str. 174-184

other companies grows. Is it a coincidence that in these new competitors the standard of social responsibility and business ethics is on an appropriate level?[3]

Analyzing past events it is possible to recognize the reasons for the diminished market share. This reduction and even irreversible loss of market share occurs in spite of all actions taken. Even then, departure from the ethical codex and declining of social responsibility can hardly be beneficial for the firm. Still, in practice it is sometimes felt that *anything* is allowed for market survival. In spite of everything deepening of business collisions continues while market share is getting smaller and eventually the hard obtained market position is lost.

Nevertheless, some other firms survive successfully without departing from ethical codices. They do not see their social responsibility as mere formality but as part of their market image. They survive in spite of everything. It seems that the market *protects* them by some *special instruments*. Seen through the prism of strategy they have clearly created their own *market niche* by such approach.[4]

An analytical approach to this issue requires appreciation of both *winners* and *losers*. Why do many firms nowadays depart from the ethical codex? Why is social responsibility for business actions undertaken on the markets of transition countries forgotten?

Let us propose the starting hypothesis that acceptance of an appropriate standard of business ethics and social responsibility represents the firm's strength on the global market. Haven't ethical operation and an appropriate standard of social responsibility allowed maintenance and growth of market share in some of the most powerful global companies?[5]

What is the practice in the transition countries markets? Are there ethical codices and social responsibility utopia or competitive advantage? Such fast growing markets, which are not characterised by an even development dynamics, are specific. Extraordinary quality is appreciated at competitive price.

Is it possible to prove the hypothesis that in these markets respect of ethical codices and confirmed social responsibility support creation of the leader image?

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[3] Šerić, N., *Importance of remodeling of marketing strategies for the market in the countries in transition,* 5th International Conference Enterprise in transition, Ekonomski fakultet Split, Split 2003.
[4] Andersen, A., Hiebele, R., Kelly, T. B., Katteman, C., *Best practices: Building Your Business with Customer – Focused Solutions,* Simon & Schuster, New York 1998.
[5] Ries, A., Trout, J.: *Positioning The Battle for Your Mind,* McGraw-Hill Professional Publishing, 2nd ed., 2001.

2. ETHICS AND SOCIAL RESPONSIBILITY

Ethics[6] is defined as a philosophic discipline dealing with morality issues. As a general humanistic and scientific discipline ethics has a variety of application areas, among which especially significant are *professional ethics.* One of the professional ethics is business ethics that is dealt with in this work. Business ethics is a comparatively new scientific discipline arising from practical application of ethics in economy. Nowadays business conditions are significantly different especially in terms of establishment of an ethical codex within a company. However, disregard of basic ethical principles and violation of basic human rights is still existent. Ethics cannot substitute some important functions or solve business problems in a company. It can however improve the areas of relations to customers, competition, employees and market environment.

The reason for the rise of importance of ethics lies in development and acceptance of marketing principles, as well as in the higher level of awareness in management. A more appropriate treatment of an individual in business and living environment results in higher operational efficiency. Eventually it has repercussions on the competitive position of the company. In this sense this is a form of individual ethics. An individual acts in synergy with the company, in contact with colleagues, customers and other subjects in the business environment. When within a business system some crisis occurs, ethical approach often points to the weaknesses that have caused it.[7]

Organizational behavior is a system of individual behaviors which are collectivized. This system is the basis from which social responsibility is defined. The concept of responsibility is often related to business ethics due to complex situations of acting and decision making in business practice. Such acting and decision making have repercussions on the business environment and on all the subjects existing and operating within it.

Business challenges nowadays require directed, aimed acting. The reason for that are limitations on the demand side. These are particularly material and ethical limitations within legal and generally accepted framework. Legal regulations are supplemented by moral standards of the society, and are a framework for market operation. In parliamentary democracy legal regulations reflect basic social values. This overlapping of law and morality is a platform for development of operative models of ethical behavior and acting in the area of social responsibility.

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[6] Andreasen, A. L., *Ethics in Social Marketing,* Georgtown University Press, Georgtown 2001.
[7] Smith, N.C. & Quelch, J.A., *Ethics in Marketing,* Irwin, Homewood 1993.

3. ETHICS IN BUSINESS DECISION MAKING

Each business decision is the result of some motive which stimulates the company management for particular target behavior. Each business decision has its moral characteristics.

A decision is of appropriate moral value if it is made on an appropriate way and in compliance with the behavior standards. In these terms we speak of socially responsible behavior. Business decisions are related to business procedures. They are appropriate if

A decision is of an appropriate moral value if it is made in an appropriate way and in compliance with the behavior standards. In this sense we talk about socially responsible behavior. Business decisions refer to business procedures. They are appropriate if they are stimulated by a positive motive in terms of social responsibility.

Behavior compliant with law need not always be socially correct. Update of legal regulations is always delayed in comparison to social and economic relations on the market. In this sense, justification by a legal norm may not be socially acceptable.

In this context, practice has shown that[8]:

- Law embodies many moral convictions;
- Law represents a clearly defined system of behavior rules;
- Law contains rules applied equally on all, but what is important in business is synergy and consistency of operation;
- Law is not totally impartial;
- Legal regulation is insufficient without integrity of business people and socially responsible behaviour in economic activitites.

Starting from the above listed statements, frequent causes for ethical problems in business practice are the following[9]:

- Promotion in competitive environment with personal profit and egocentricity of action. Personal profit and egocentricity cause serious ethical problems to individuals and business environment. Ethical characteristics of an individual are often recognized only after some time. The existence of individuals within the business system who put their own interests before the common interests is the first precondition of unethical corporate operation, and also of actions that are not compatible with an appropriate level of social responsibility.

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[8] Andreasen, A. L., *Ethics in Social Marketing,* Georgtown University Press, Georgtown 2001.
[9] Šerić, N., *Učinci uključivanja zemalja različitog stupnja razvijenosti u ekonomske integracije*, magistarski rad, Ekonomski fakultet Split, Split 2002.

- Complex market relations and increasingly complex operation models in terms of realization of long-term corporate profits. This is exactly the basic reason for resorting to unethical activities in order to maintain market share and target profit. It is to be assumed that competitively inferior companies might restore to unethical actions, however in practice even market leaders may act contrary to business ethics and social responsibility.

- Business aims may be set contrary to generally accepted social values. Thus ethical problems also arise because of the interest conflict between the company and ethical principles of employees. These are the situations in which the management requires the employees to take actions in the interest of the company which can eventually be detrimental to themselves, to customers, other employees, the company and wider community.

- Cultural conflicts due to existence of multinational companies. Uniformity of operations in a number of countries with different ethical standards also results in ethical problems and misunderstanding of behavior by the local market environment.

Another frequent phenomenon in the modern business practice is the so called *bottom line mentality*[10]. Such behavior is manifested as improper mentality of employees towards competitors due to which ethical principles are also neglected.

3.1. Platform for ethical behavior model in business practice

The third millennium will bring new qualitative standards of business ethics and social responsibility. In this sense, having analyzed a number of cases in practice[11] we can set a platform for building ethical behavior model on the transition country market.

Starting from such a platform it may be possible to meet both the set profitability criteria and the appropriate levels of business ethics and social responsibility. It is important that ethical codex is not comprehended as a reaction to something that is already done. The basic difference in approach is an a priori simulation of consequences, or *preventive ethics*.

When a manager finds himself in a moral dilemma, he has to recheck the possibilities and evaluate consequences in order to choose and make an appropriate decision and eventually act in compliance with ethical principles. When analyzing practical cases the authors used the following *control questions* [12]:

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[10] Kotler P. : *Corporate Social Responsibility*, New York, Huboken: Jon Wiley And Sons Inc., 2005
[11] Šerić, N., *Oblikovanje i odabir strategija marketinškog menadžmenta,* EF Split 2005. godine, doktorska disertacija.
[12] Šerić, N., *Oblikovanje i odabir strategija marketinškog menadžmenta,* EF Split 2005. godine, doktorska disertacija

- Is the business problem exactly defined?

- How would thee same problem be defined from the aspects of customer, supplier, or any subject involved in this business relationship?

- What are the reasons leading to this particular market situation?

- To whom or to what are we loyal as a firm?

- Which is the basic intention in this particular decision making?

- Is it possible to compare the intention with the possible consequences, and in which way can it be done?

- Who can be harmed by the decision made?

- Is it possible to evaluate the correctness of future decisions and actions in the long run?
- Is it possible to present the business proposal in simple terms to superiors and to community?
- Under what conditions is it possible to allow partial departure from the plan?

The answers to the above questions can ease the dilemma in choosing options in terms of their morality and consideration of social responsibility in the business environment.

3.2. Application of ethical behavior model in business practice

Even if a firm seems to be a business subject that behaves ethically, this impression may be a wrong one. In critical market situations even an appropriate approach can result in unwanted consequences. Situations may often press employees to make decisions which are neither totally right nor totally wrong. Such cases reveal the importance of introduction of the system of ethical business behavior management in compliance with social responsibility.

The contents of business behavior management system is defined in accordance with the needs of a concrete firm, but in the practice observed by the authors it was revealed that business behavior policy most frequently involves the following aspects:

- Accurateness of business data

- Harmonization with laws, regulations, and company policy

- Possible corruption and interest conflict

- Abuse of available possibilities

- Relations to customers and suppliers

- Environment protection

- Equal conditions of market operation

- Inappropriate tactics

- Actions based on political activities

- Product quality

- Health protection

- Data security protection

- Intellectual property protection

- Data management

- Control and prevention of ethical offense

- Use of all company resources, IT equipment, and information.

Improvement of team work is a concrete result of company business ethics management. Openness, frankness and feeling of community, as the basic elements of team work, build an appropriate level of communication on common values. In that way synergy of action is improved among employees, and synergy of action provides efficiency of corporate market operation.

Ethical programs are necessary in creation of a favorable internal and external corporate image. Eventually, the question for any firm is what is to be done to affect market environment that will stimulate ethical behavior and decision making.

In business practice the authors observed that ethical principles were implemented by the following mechanisms[13]:

- Leading by example.

- Setting up of ethical codex: declaring values and elaborating ethical behavior codex.

- Establishment of *ethical structures* by ethical *representative:* by ensuring support of the Management Board, defining goals, appointing employees in charge, constant contacts with the Board members, and regular surveys.

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[13] Šerić, N., *Oblikovanje i odabir strategija marketinškog menadžmenta,* EF Split 2005, doctoral dissertation.

- Application of ethical behavior models through education and training, and establishment of appropriate communication lines structures.

- Building of organizational culture based on ethical principles: investigation of the alleged ethical offenses, corrective and preventive actions, discipline measures, measurement of effectiveness, control and reporting, follow-up and recording of positive examples, and continuous improvement of behavior standards.

Leading by example is a practical pattern for adoption and adaptation of ethical behavior in the firm's business environment. It is realized by establishment of behavior patterns to be followed. Behavior patterns are established from top to bottom of hierarchical pyramid, and the basic responsibility rests with the management. Leading by example represents the basis of successful ethical behavior development independently of other practicable mechanisms.

Ethical codex represents formalized behavior describing the system of common values and rules to be obeyed by employees. Ethical codex defines policies, procedures and rules related to appropriate behavior such as employees' privacy, disposal of firm's resources, conflict of interest, etc. In order to be stimulating for ethical behavior, ethical codex should also assume forms of concrete behavior that is undesirable or forbidden; it must contain directions for correct behavior; it must be accepted by the management and implemented through system of rewards and penalties

Nevertheless, not even application of ethical codex can solve all the problems. There are always conflicts with personal value systems, rules are often too general, new ethical dilemmas are not timely updated, and sometimes it is just disobeyed in spite of everything. In order to reduce the shortcomings of ethical codex in practice, some other ethical statements are introduced. Most frequently they take the form of a *business slogan* – a short and meaningful statement of organizational values, activities, and desires. Very frequent is also a *declaration of values* – a document stating and defining basic ethical values, ideals, and principles of the firm.

Ethical structure system assumes the establishment of an organizational body or an individual responsible for observation of ethical problems. *Ethical board* supervises corporate behavior ethics, makes conclusions on ethical issues, and takes measures to ensure ethical behavior of employees. Members of such a body can be eminent individuals from the firm itself or even external experts. Ethical representative is usually a specialist in business ethics and act as the Management Board *consciousness*. This person will take part in strategic decision making by testing the ethical value of decisions. This person must possess excellent communication and presentation skills, objectivity, professional maturity, political awareness, rationality, expertise and knowledge of legal regulations, readiness to make autonomous decisions, managerial abilities, reliability and confidentiality.

Other mechanisms represent operational behaviors to complement the above stated basic ethical mechanisms. Each firm has a specific structure and consideration of its specifics is the fundamental step towards the build up of its ethical system.

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These specifics are even more pronounced in the markets of transition countries where developmental oscillations frequently result in ethical dilemmas. Right due to this acceptance and respect of ethical principles and social responsibility will be a potential strength for every firm as well as a platform for differential market operation.

4. CONCLUDING OBSERVATIONS

Compliance with the established principles of business ethics and social responsibility contributes to humanity and performance of the firm. This creates and improves a corporate culture that will itself provide an image and market recognition of the firm. Complexity of market relations and social relations in the transition countries market frequently results in unethical behaviour and departure from an appropriate level of social responsibility. Survival in fast expanding markets is complex. Risk of survival often creates fear and desire to make profits in the short run. What is to be taken into account in this context, is the benefit of employees and the benefit of all subjects whose material position depends on the company activity. In this sense ethical behaviour and social responsibility is equalized. Decline in the individual life quality and dissatisfaction of employees and customers will result in harmful consequences in terms of the firm's image and its business future.[14]

Acceptance of general ethical standards and behaviour in accordance with them contributes to the efficiency of the economic system of a country in transition, and its inclusion in the global market. In spite of this, it is still believed in some transition countries that enhancement in these terms leads to unjustifiable costs. The consequences of such beliefs and behaviours are often loss of market image, market share, and bankruptcy.[15]

Practical application of business ethics and awareness of social responsibility are not just principles or document formed as an ethical behaviour codex. It is rather a complex system of routine operation and communication with the environment. The future development of employees and their efficiency depend on this system, as well as the operation of the firm as a whole. The operation model has to be adapted to the firm's environment and its business activities, and it has to be implemented in all its operational functions.

Ethical business operation and acceptance of the modern standards of social responsibility contribute to the trust in the better future, especially in the moments of crisis. Critical periods can be used to strengthen the team spirit, to motivate the workforce and to promote a positive image of the firm. On a wider social scale such behaviour will promote competitiveness and represent a significant civilizational achievement in the business sphere.

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[14] Corrigan, P., *The Sociology of Consumption,* Sage Publications, London 1997.
[15] Šerić, N., *Importance of remodeling of marketing strategies for the market in the countries in transition,* 5th International Conference Enterprise in transition, Ekonomski fakultet Split, Split 2003.

In application of ethical principles in practice, various organizational mechanisms are nowadays used in transition countries markets. Their aim is to promote corporate ethical culture. Besides, these principles contribute to creation of organizational environment that will stimulate ethical decision making and employee behaviour. The results of such mechanisms may not always be ideal, as each any basic ethical principle has its advantages and disadvantages. *Benefits, law* and *justice* cannot always ensure the decision platform that will be ethically desirable.

Operation in the long run is always linked with ethical principles. Intensification of any effort in these terms will guarantee the market survival of the firm. Eventually, business ethics and ethics in general is a civilizational achievement on which life quality is heavily dependent today and in the future.

Acceptance of high ethical standards in business is a complex organizational task in the modern business practice. Various groups within the firm can have different opinions on the level of necessary standards. Harmonization of attitudes is most appropriate in the basic postulates. Factuality and truthfulness are to be respected, and justice has to be striven for in relations between market subjects and their environment. On the other hand without mutual respect and acceptance of differences there can be no ethically motivated business. Without it there is neither long-term perspective of market survival. The platform and application model described in this work serve for that particular purpose.

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THEME II

CHALLENGES FOR BUSINESS SECTOR DEVELOPMENT

II-1

Finance perspectives in small and medium enterprises (SMEs)

SME POLICY AND THE EMERGING KNOWLEDGE ECONOMY IN CROATIA:
COMPETITIVE PRESSURES AND EMPLOYEE SKILLS

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1. INTRODUCTION

Technological change affects the demand for skills across all economic sectors during transition. In advanced OECD economies technical change has brought about a general 'upskilling' of the workforce (Machin, 2001; Berman, 1994). The introduction of new technologies has involved an upward shift in the demand for skilled labour, leading to a widening skill-wage differential and an increased share of skilled employees. This effect has become known as 'skill-biased technical change'. It tends to occur 'within sectors', as opposed to the 'between sector' shifts following structural change in the economy, and most productivity growth in the transition economies of Eastern Europe between 1995 and 2000 came about as a result of changes within sectors rather than shifts between sectors (Landesmann et al., 2004).

Skill-biased technical change has been intensified by the advent of globalisation and increase of competition. Countries with comparative advantage in skilled labour have specialised in goods with high skill content, raising demand and wages for skilled workers. At the same time cheap imports from less developed countries have undermined the labour market position of low-skill workers. In less developed countries an opposite effect is taking place and a process of deskilling, and an increased demand for unskilled labour, can be observed as a counterpart. Some less developed countries have begun to bridge this gap by investing intensively in human capital. Transition countries might fall into either group – the group of upskilling countries, or the group specialising in low-skill sectors. The outcome depends upon both initial conditions (the level of development and the extent to which a country had an initial comparative advantage in skilled labour) and the path of transition itself (how fast

restructuring takes place so that new high skilled industries can be retooled and become competitive on the global market).

Croatia began its transition in the late 1980s in a favourable position, with a highly skilled workforce in industries that traded intensively with the EU. Together with Slovenia it was one of the most advanced republics of former Yugoslavia. When the country broke up the more advanced regions were more easily able to integrate themselves into the global economy. The experience of Slovenia demonstrates how this process can enable a country to progress and develop on the basis of upskilling its workforce, and integrate into the EU on the basis of high-skill industry specialisations (such as in motor car components manufacturing). Croatia was in a position to follow the example set by Slovenia, but the war period in the early 1990s set the country back and many of its industries lost their connections with the international market. The development and technology gap between Croatia and Slovenia has subsequently widened.

These considerations suggest that there is nothing automatic about a country adopting a process of skill biased technical change. Transition countries may follow two feasible paths: a high technology path and a low technology path. Along the first path, favourable initial conditions followed by a speedy restructuring combined with preservation and growth of human capital may lead to a rapid recovery and growth catch-up with the EU economic average. The second path is characterised by unfavourable initial conditions and political instability leading to a slow pace of transition and restructuring. Along this path, transitional recession characterised by deindustrialisation and mass unemployment can be prolonged, leading to deskilling and the loss of human capital. This latter effect is amplified by civil conflict, which promotes the emigration of skilled workers and a further loss of human capital through a 'brain drain'. Transition countries that follow this path can be expected to have weak demand for skilled labour, and specialise in export of low-skill goods. They are less likely to attract FDI, partly due to the weakness of the skills base of the labour force, and this in turn may undermine the process of skill upgrading.

How can countries which have favourable initial conditions, and yet have been for some time caught in the second path of low-skill transition switch track and pursue a more socially responsible path of high-skill development and increased productivity based on investment in high technology and continuous innovation? The mechanisms of knowledge transfer to both established and new small businesses are especially problematic in countries where the legal system does not fully protect intellectual property rights, where trust relations are weak, where foreign direct investment is low, and where large domestic enterprises are protected from the force of market competition. In such circumstances there will be low levels of knowledge transfer and innovation. Recent research into national innovation systems has shown that differences in innovative capacities between countries are to a great extent linked to the institutions which promote learning and technology transfer (Brazcyk et al. 2000, Piech and Radosevic, 2006) and furthermore on the existence of networks of institutions and firms that permit reciprocal exchange of knowledge and information (Morgan, 1997). Such knowledge transfers are facilitated by flexible interaction between research institutes, university science departments and industrial enterprises.

In this paper we investigate the case of a transition country, Croatia, which is seeking adequate policy options that would shift her from comparatively lower-skill development and human capital towards the path of a high-skill knowledge-based economy. In section 2 we start by reviewing the institutions which have recently been established in Croatia to facilitate

knowledge transfer and innovation, followed by a review the innovation capacity of Croatian economy. We identify the main strategic directions of research and technology policy, and identify some weaknesses in policy implementation. In section 3 we explore some of the reasons for the low effectiveness of knowledge transfer policies. Section 4 draws some conclusions about the role of institutions in promoting knowledge transfer and innovation, and the mutual roles of government, academic institutions, and the business community in implementing such policies effectively.

2. KNOWLEDGE TRANSFER POLICIES IN CROATIA

Croatian analysts and policy makers frequently point out the gap between the relatively well developed public research sector and the needs of the business community. The transfer of knowledge from universities and research centres towards the business sector and in particularly towards SME sector remains rather modest and there is an ample scope for improvements in this area. The Government has already taken number of measures towards that end. As the recently published Competitiveness Study concludes, Croatia needs to develop a more ambitious innovation and research policy and improve the transfer of knowledge especially towards technologically most dynamic enterprises. EU accession should significantly contribute to the process of expanding the technological base of the country, not only by introducing mechanisms for stimulating R&D activities but by creating a framework for the cooperation of Croatian companies with EU partners that could result in a significant transfer of new technologies. Without doubt, the demand for the technology and knowledge-based services from industry is expected to expand in Croatia as competition becomes stronger.

Croatia has already set the basic institutional framework to support knowledge transfer between science and business. It consists of a strategy and a policy of scientific and technological development, and an innovation policy, all of which underpin the legislative framework, the institutions and the organisational structure which enforce and implement the policy. Linkages between these elements of SME policy, the innovation system, and the emerging knowledge economy in Croatia are needed to underpin a successful transition to a path of high skill, high-technology, knowledge based economic development (Svarc, 2006). However, as in several other transition economies, there are many deficiencies present in knowledge intensive services, financial systems and available labour skills, which are serious structural problems in transformation towards the knowledge-driven economy and society (Peich and Radosevic, 2006).

In Croatia the national research and technological policy is the responsibility of the Ministry of Science, Education and Sports. The Government has defined its policy for science and technology development in the "*Strategy for Development of Science in the Republic of Croatia in the 21st Century*", adopted in 2003. In October 2006 the Ministry of Science, Education and Sports (MSES) adopted a further document on the "*Science and Technology Policy of the Republic of Croatia, 2006-2010*" which serves as the basic framework and vision for research and technology development for the next five years and assigns the budget necessary for the implementation of the policy[1].

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[1] For details see www.mzos.hr with the full text of the Science and Technology Policy, 2006-2010.

In 2004 several activities were started to strengthen the Croatian National Innovation System (NIS) by establishing new institutions and strengthening the capacity of existing ones. The institutional framework was enriched by the establishment of the Croatian Accreditation Agency in 2005 whose activities were previously scattered among different institutions. The reorganisation of the Croatian National Innovation System was carried out as part of an effort to align to EU practices and the general institutional adjustment process towards the EU.

In the last five years the Ministry has carried out various activities to assist innovative technology development. In May 2001 the HITRA[2] programme (Croatian Programme of Innovative Technological Development) was started by the Croatian Ministry of Science and Technology, aiming to enhance cooperation between science and business sector on new technology development. The main mission of HITRA was to enhance the commercialisation of innovations and to transfer knowledge on technological innovation from academic research centres to the enterprise sector. Most of the registered innovations in Croatia have remained within the academic community without testing their commercial possibilities, holding back the technological development of the economy. The HITRA Programme aimed to bridge that gap so as to increase the innovation performance of the Croatian economy.

The Programme was implemented through two technology projects known as TEST and STRIP (for developing early stage simple and complex technological projects) mainly directed to the academic community, and the sub-programme RAZUM directed to enterprises which use new technologies developed in cooperation with Croatian scientific research institutions. In 2005 the TEST and STRIP projects were combined into a single Programme called JEZGRE which aims to enhance R&D resources in industry and to increase the employment of young scientists in industry. In 2006 about 2.8 million Euro has been secured by the State Budget for implementing the programme, but the rest of needed funds is to be financed through the public-private partnerships. [3]

RAZUM was redesigned in early 2005 and re-launched by the Business Innovation Centres Network (BICRO)[4] as and Innovation Commercialization Programme through three new projects including (a) VENCRO, which finances new hi-technology start-ups through a venture capital fund supported by a €31 million World Bank loan[5] approved in 2005, (b) TECHPRO, which assists established hi-tech firms with funding for new technology and business infrastructure and which also funds new technology and innovation centres and incubators, and (c) Product Quality Facility (PQF) projects aimed to improve competitive capacity of existing SMEs in order to increase their access to new technology knowledge and management skills.[6] RAZUM is based on the support from Croatian Bank for Reconstruction and Development, Ministry of Economy, Labour and Entrepreneurship and the Fund for Development and Employment, as well as the World Bank Science and Technology Policy (STP) Loan. The Programme will combine the budget of €86 million coming from public funds and about €20 million coming from the private sector.[7]

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[2] For details see on HITRA projects see www.mzos.hr.
[3] Science and Technology Policy of the Republic of Croatia 2006-2010, Ministry of Science, Education and Sports, October 2006, p. 28.
[4] BICRO was founded in 1998 by the Croatian Government decision - see www.bicro.hr.
[5] BICRO received €14 million.
6 For details on the World Bank loan see Project Information Document at www.worldbank.hr.
[7] Science and Technology Policy of the Republic of Croatia 2006-2010, Ministry of Science, Education and Sports, October 2006, p. 28.

In 2006 two additional programs of BICRO were launched: IRCRO which provides incentives for Research and Development activities of the SMEs through the business cooperation with academic organizations and KONKRO which aims at activities which improve business competitiveness at different levels (product quality, design, productivity, ISO standardization of products, patenting procedure, environmental protection, etc) and is much wider in its scope than the pure focus on quality of the products within the PQF program. IRCRO is jointly funded by the Program and industrial company on the bases of 50:50 grant scheme. A total of €1.5 million has been secured in the State budget for implementation of this program until the 2009. KONKRO Program is also envisaged to be financed by the State budget with a total of €1.5 million by 2009.

Established already in 1997, BICRO's mission has been to link innovative business firms with R&D at universities and financial institutions, offering seed capital and various innovation schemes. BICRO has been responsible for implementing the government's programme for the creation and development of knowledge-based small and medium enterprises, drawing also on regional and local funding. BICRO also relies heavily on regional Technology Innovation Centres whose activities are also supported by government funds. Since 2004 the activities of the BICRO Network has been supported by the Ministry for Economy, Labour and Entrepreneurship (MELE) through the Projects for Innovators. In 2004 MELE launched a special loan programme to provide incentives for SMEs with projects for buying new technology and equipment. About 111 such loans were disbursed, totalling €15.9 million (Singer and Lauc, 2004: 25). MELE also supports programmes stimulating development and growth of technology-based SMEs by encouraging individuals to establish their own companies as well as the development of innovation clusters (*Cluster Development Programme*) to boost competitiveness.[8]

However, all these programs are limited in size and rather bureaucratic in their procedures. Moreover, according to the Croatia Enterprise Policy Performance Assessment (OECD, 2005) support programs in Croatia for crafts and SMEs lack adequate tax incentives for investment in advanced technology and knowledge-based production and services, although special tax benefits for R&D expenditures in the private business sector were introduced in December 2003. Such costs are actually deductible twice: first as deductible expenditures when taxable profit is calculated and secondly as a reduction of already calculated taxable base for corporate income tax (CIT). The R&D tax incentives should encourage a considerable increase in research and development in Croatia if the regime is administered in a non-bureaucratic manner.

Initial pilot comparative analyses of Croatian National Innovation System and EU-member countries based on the benchmark methodology (Svarc and Becic, 2005), show that Croatian NIS is lagging behind the average EU-25 in all four components of the innovation system: a) research intensity; b) intellectual capital levels; c) technological and innovative capacity and d) enterprise innovation absorption capacity. Therefore there is still ample scope for adjustments prior to accession to the EU.

2.1. Innovation capacity in Croatia

Innovation capacity could be broadly defined as the capabilities of a society for innovation and technological progress (Freeman, 2002). In Croatia, total expenditure on R&D over the

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[8] For more information see www.mingorp.hr.

last five years has been at just above 1% of the GDP (1.14 % in 2003; 1.21% in 2004[9]), which is still rather inadequate both in terms of scope and structure.[10] The total level of expenditure on R&D in Croatia is lower than in neighbouring Slovenia and the EU-15, but above the average of the new EU member states[11]. R&D expenditure by the private sector is relatively low compared to the EU-15 countries (CEC, 2004a): the private sector spends just 0.45% of GDP on R&D compared to 1.30 % of EU-15.[12] and employs relatively few researchers - in Croatia the private sector share in total R&D employment is at about 19%[13], compared to 56% in the EU-15. Among the new member states only Bulgaria has a lower share of researchers employed in the private sector than Croatia.

The Croatian research system consists of seven universities, 26 public research institutes, 13 private scientific institutions, 11 research centres in the industry sector, 16 public schools of professional higher education, 16 accredited private colleges and polytechnics, one military research centre, and six technology and research and development centres.[14] It is generally considered that knowledge transfer from universities to SMEs is underdeveloped in Croatia. According to a recent European Commission report "there is insufficient co-operation between business and universities and other public research institutions" (CEC, 2006). Moreover, Croatia has continued to have a below-average rate of knowledge transfer from its universities and research centres to its private enterprise sector as compared to EU-members.[15]. Compared to the main EU competitors, Croatia's position is rather weak and links between academia and industry are inadequate as measured by access to research, subsidies for acquisition of new technology, and support for engineers and scientists for commercialisation of their ideas (Singer and Lauc, 2004). According to the most recent Competitiveness Report, Croatia needs to develop more ambitious innovation policy to encourage knowledge transfer towards technologically dynamic enterprises. However, EU accession may eventually promote the expansion of the knowledge base, by stimulating R&D activities and the cooperation of Croatian companies with EU partners could result in a significant transfer of new technologies.

A recent survey of the European Commission[16] (2005) has measured the capacity for innovation and revealed indicators for assessment of this capacity in EU members and 4 South East Europe countries (Bulgaria, Romania, Turkey and Croatia). Croatia seems to be attracted to the innovation of new services and products a bit above (40%) the average 39% of the sample, showing rather good potential of the population for the innovation which is important drive of the competitiveness of the enterprise sector. However, it is important to mention that Slovenia, Luxemburg, Malta and Slovakia belong to the group of highest innovation enthusiasts (together with Turkey and Romania), giving them larger chances to materialise their innovation capacity, which means that comparatively Croatia's position is

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[9] *Statistical Information* 2006, State Bureau of Statastics,Zagreb, December 2006, p. 36; www.dzs.hr

[10] Also it is time that the official statistics consider this not as an expenditure but as an investments.

[11] Annual Report on Competitiveness of Croatia, 2003-2004, National Competitiveness Council, Zagreb, 2005.

[12] Annual Report on Croatian Competitiveness 2003-2004, Croatian Competitiveness Council, 2005.

[13] Some estimates are even lower than those of National Competitiveness council i.e. 17% (Svarc, J. 2005)

[14] "*Science and Technology Policy of the Republic of Croatia, 2006-2010*" Ministry of Science, Education and Sports, October 2006, p. 10.

[15] According to the GEM 2005 report (p. 52) the average score for Croatia is 2.06 (out of 5). The conditions in the knowledge transfer from academia to business have during the period 2002-2005 stayed around more or less unchanged, which is not a good news, as this is very important component for entrepreneurial development. Croatia is ranked at 24th place among 35 countries covered by the survey in 2005.

[16] Population Innovation Readiness, *Special Eurobarometer*, European Commission, August 2005.

weaker in the longer run. The data from the first innovation survey (2004) of Croatian enterprises are discussed in detail below.

2.2. Knowledge transfer through spin-offs and clusters between academic organisations and business

In recent years universities in many industrialised countries have begun to set up programmes to encourage academics and students to establish spin-off companies to commercialise the results of scientific inventions made within the academic laboratories. Such companies are typically small high technology companies. The commercialisation of scientific research through spin-offs is a direct means of transferring knowledge from higher education institutions to the SME sector. A number of empirical studies of spin-off experiences in various European countries have begun to identify some key issues for policy makers keen to encourage spin-off activity. As with SMEs in general, only a small minority will have a high growth potential and offer a high return to the originating institution. University based start-ups and spin-offs are high-risk ventures and face many difficulties. Typically, spin-offs may find it hard to rise outside equity capital or loan funds to finance their activities (Lerner, 2005). Equity investors are reluctant to invest because of information asymmetries between the academic entrepreneur and the investor. Banks may be reluctant to invest because of adverse selection problems (high risk-adjusted interest rates discourage all but the most high-risk borrowers). Spin-outs also typically lack managerial expertise they need to develop the capabilities to exploit the commercial potential of their technologies (Wright, Vohora and Lockett, 2004). The latter difficulty can be overcome if spin-out companies form joint ventures with established companies. A further issue is whether research institutions are allowed to retain the right to patents in inventions that they make, and can legally commercialise the invention in the form of an innovative spin-out company. If they are not, and if they are constrained by restrictive regulations and bureaucracy there is even less chance that their spin-out activities will be successful (Lerner, 2005).

In Croatia, the spin off companies at universities and research institutes are still extremely rare phenomenon. One of the latest initiatives for establishment of a pilot spin-off high-tech company was explored in 2004 at the Institute Rudjer Boskovic (IRB), envisaged as a joint venture with foreign partners. The World Bank supported restructuring program of the Institute called Science and Technology Program (STP) which aimed to develop IRB's long term Business Plan (2004-2008) which includes four pilot commercialization initiatives. [17] The spin-off firms will try to launch the applications of the commercially viable innovations based on venture-capital investment.

The National Competitiveness Council of Croatia has also listed these policies for SME development in its "55 Recommendations for Raising Croatia's Competitiveness" (2004). The Croatian Government has issued a tender to provide grants of between €400 and €10,000 to promote clustering activities covering costs of business plans, studies, joint market approaches, development of ICT and databases to facilitate clustering. So far, there have been few projects initiated, including two in the furniture industry (Zagreb and Vinkovci) and the other one in the metal industry in Osijek (Singer and Lauc, 2004). The Croatian Wood Cluster was initiated in 2002 also with the assistance of USAID and has 20 members, while the Vinkovci Wood Cluster has 15 members and was initiated in 2004. The metal industry cluster was initiated in Osijek in 2003 and promotes cooperation between a growing mid-sized

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[17] For details see IRB Annual Report 2003 and 2004 at www.irb.hr.

company and 15 smaller ones. According to the latest data from MELE there are 29 innovation-production cluster initiatives that got support from the Ministry in total amount of 657,557 HRK.[18]

2.3. Technology transfer centres and incubators

There are five Technology Transfer Centres in Croatia: TIC Rijeka, Technology Development Centre Osijek-TERA; TIC Split; Technology Transfer Centre Zagreb and Research and Development Centre for Mariculture Ston (CEC, 2006). Four of them were established by the Ministry of Science, Education and Sports (MSES) and with support by local community. MESE supports the operation of these centres only through co-financing operational costs (overheads), The Ministry of Economy, Labour and Entrepreneurship (MELE) also supports projects for start-ups and innovation through these centres.

Technology park initiatives have been also growing (EPPA, 2005) and there are now several innovation centres and technology transfer centres.[19] Among them five institutions could be considered as genuine technology parks: Technology Innovation Centre Rijeka; Technological Park Zagreb; Technological Centre Split; Technological Park Varazdin and the Centre for Technological Development Slavonski Brod. The first technology park was Technological Park Zagreb (TPZ) founded in 1994 as a combination of a technology park and a business incubator. Its main aims are to support business start-ups, advise entrepreneurs, provide business education and training, deliver project management and introduce quality certifications such as ISO 9000. It has 1,300 m² of business premises and about 300 - 500 clients. Half of its operating budget comes from the municipality and the remainder from its commercial services such as renting space and facilities to other entrepreneurs. The TPZ represents the largest concentration of entrepreneurs in the area of high technology development and innovation in Croatia. Out of 39 high technology private sector tenants, 21 left after successful incubation, while 18 are still incubating in the Technology Park. The firms that entered the Park have enjoyed impressive business growth and after leaving have on average 15 employees. Between 2001 and 2003 the firms within the TPZ developed 104 new products as a result of own technological innovations which have all been commercialised. In the course of 2004-2005, 88 new products were developed.[20] The TPZ gained an ISO 9001:2000 Certificate in 2002, and nine of the TPZ firms have also received a Certificate.

As for business incubators development, the Government policy has achieved some good results since 2003. Several new business incubators were established in 2003-2005 as a result of the "Special Funding Programme for Enhancement of Development of Business Incubators" initiated by the former Ministry of Crafts, Small and Medium Entrepreneurship. In the 2006 Budget a total of HRK 6 million is envisaged for incentives for the operation of Business Incubators.[21] The business incubators are often part of other SME support institutions, such as entrepreneurship centres and technology parks[22]. According to the OECD (2005) there are about twenty business incubators out of which fifteen are fully operational, while the latest European Charter for Small Enterprise Annual Report for Croatia puts the

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[18] The presentation of the Minister Vukelic, September 2006 (www.mingorp.hr).

[19] For a comprehensive list visit www.poduzetnistvo.org , web portal on SME support institutions.

[20] See www.tehnopark.com.hr.

[21] The presentation of the Minister Vukelic, September 2006 (www.mingorp.hr).

[22] The small business community claims that information on business incubators is not readily available and the services they offer are not sufficiently specialised.

number at sixteen (CEC, 2006). Business incubators are also established as students' initiatives (for instance at the Faculty of Electrotechnics Zagreb). In 2004 the Government adopted a "Programme to Encourage the Establishment of Students' Firms" and provided funding to promote such initiatives in secondary schools. The development of business incubators is constrained by the lack of adequately trained and experienced staff. Appropriately qualified incubator managers, combined with adequate financial support, are important factors for the success of such programmes to encourage business incubators. The impact of business incubators is also diminished by the lack of suitable follow-up and absence of plans for tenants vacating at the end of the contract period.

2.4. Mobility of researchers

Mobility of researchers between academic and business organisations in Croatia is still rather low. Most of the research resources are positioned in public research organizations and universities. This is a result of the process that started at the beginning of 1990s when most of industrial research organisations were closed as a part of the severe restructuring process that industry has gone through in Croatia. According to latest 2006 data, in the total human resources in the R&D sector, there are 3,232 Masters of Science, 5,780 Doctors of Sciences and 1,982 other researchers. Industry and private companies employ 2,703 Masters of Sciences and 976 Doctors of Sciences.[23] The Croatian Ministry of Science, Education and Sports supports the employment of young scientists in R&D in industry within the Program JEZGRE since 2005. This was recognized as a most critical issue of future economic development resources. Namely, according to the available data at the Ministry, the share of young PhD holders in technical and natural sciences in total employment in the age group 25-34 is only 0.17% in Croatia as compared to 0.55% on average in the EU (and 0.97% in Finland). Also, there is only 17% of total number of researchers employed in R&D in industry sectors, while the developed countries employ predominant share of 70% of total researchers.[24] The Program JEZGRE envisages help to R&D industry centres by providing financial assistance for employment of young MA and PhD scientist in the industry for a period of four years.

2.5. SME policy and knowledge transfer --innovation policy among SMEs

The statistical surveys on innovation capacities which are the usual methodological tool in assessing innovation capacities in the EU member-states are rarely carried out in Croatia. The first statistical survey on innovation activities in the enterprise sector in Croatia was conducted in 2004 by the Institute of Economics, Zagreb on a sample of 3,749 Croatian enterprises, out of which 567 enterprises provided the requested data. The survey measured the frequency and intensity of innovation activities, as well as their sources and obstacles for them in Croatia. It was conducted on the basis of the standard EUROSTAT methodology of Community Innovation Survey (CIS3).[25] The survey[26] revealed that about 54% of production enterprises carried out innovation activity relatively frequently in the 2001-2003 period. As in Slovenia (and elsewhere in the EU), the survey revealed that most of the innovations take

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[23] The data are from Register of Scientists, EZRA database, September 2006.
[24] Svarc, J.(2005) *Inovacijsko zariste*, The Newsletter of Ministry of Science and Technology, Vol 2. no.1, p.4.
[25] The summary of the main results is available in *Innovation Focus* /Inovacijsko žarište/, (2005), Vol 2.No.6. Croatian Ministry of Science, Education and Sports.
[26] For details see Račić, D., Radas, S., and Rajh, E. (2004). Innovation in Croatian enterprises: preliminary findings from community innovation survey. *Proceedings of the 65th Anniversary Conference of the Institute of Economics, Zagreb* / Švaljek S. (ur), Zagreb, p. 403-427.

place in larger companies rather than small companies. The same pattern is confirmed by the Croatian survey since there is a much higher share of innovating firms among those with more than 250 employees (Racic, Radas and Rajh, 2005).

Table 1 : Percentage of innovating firms in Croatia related to size

Firm size	Both product and process Innovative	Only product Innovative	Only process Innovative
0-9	36,33%	30,04%	24,12%
10-49	49,74%	40,84%	36,32%
50-250	57,61%	49,45%	41,30%
>251	76,32%	63,16%	63,89%

Source: Racic; Radas and Rajh (2005)

However, the effects of such innovations are relatively low as they are inadequately reflected in advancement of the production processes. Furthermore, a very worrying survey result is that the enterprises in services record especially low levels of innovation activity. The general effect is that innovation is placed rather low in their business plans and strategies and therefore on could expect inadequate effects on the rise of the long term competitiveness of the Croatian enterprise sector. As for the sources of information for innovations, most Croatian enterprise use fairs and exhibitions (11.6%); suppliers of the equipment (11.2%), as well as professional conferences, meetings and journals (11.1%). The survey revealed that Croatian enterprises give very low importance to the Universities and research organizations and institutes as a potential source of information, which similarly to Slovenian survey indicates rather week cooperation, knowledge and technology transfer between research and business sectors (Racic; Radas and Rajh, 2005). The Croatian firms identify the main obstacles for innovations to be: a) lack of information concerning the potential market (13%); b) lack of information concerning technology (12 %) and c) lack of customer responsiveness and interest in the new goods and services. All of them seem to be marketing related which indicates a rather low level of innovation expenditures allocated towards marketing of new products. The survey also revealed that insufficient support from the state is perceived as the least important obstacle to innovation.

3. BUSINESS STRATEGIES, DEMAND FOR SKILLS, AND TAKE-UP OF KNOWLEDGE TRANSFER POLICIES

Why have the extensive knowledge transfer policies in Croatia been relatively ineffective? And why have SMEs in particular displayed such low levels of innovative activity? In this section we argue that the SME sector in transition economies (and the business community in general) may follow two alternative strategies of investment and growth. One, a low-skill, low-tech strategy is aimed to take advantage of relatively low labour costs as a means to achieve competitiveness on the domestic and international markets. The other, more socially responsible strategy is to invest in labour force skills and in new innovative technologies, to boost competitive strength on the markets by following a knowledge-based approach to business development. We argue that the Croatian business community has been slow to adopt the high-skill strategy and has up to now relied predominantly on a low-skill strategy, although there are signs that this is beginning to change. Businesses which rely on low-skill

strategy of development can be expected to have little interest in taking up the opportunities for collaboration with research institutions and universities. Therefore, the explanation for the low take-up and low effectiveness of knowledge-transfer policies lies just as much on the "demand side" with the potential business partners as it does on the "supply side" of the relationship, or in the design of the policies and programmes.

At the onset of transition, Croatia inherited a well developed education system. However, the system was created to serve the needs of a heavily industrialised economy, focused on developing a narrow range of skills designed to equip workers for specific tasks in the workplace. Little attention was paid to education in transferable skills as it was expected that workers would have a job for life in their chosen industry. Few people were educated in the skills needed in a fast-changing market economy. Adult education was also insufficiently developed, and workers made redundant from privatised or state firms undergoing restructuring were disadvantaged in the labour market. Economic restructuring combined with traditional vocational training left many unemployed blue-collar workers with obsolete skills (Cazes and Nesparova, 2003). In OECD countries, as observed above, a process of skill-biased technological change has resulted in an increasing share of skilled white-collar workers in employment in most advanced western countries. As can be seen from Table 2, this process has not yet taken hold in Croatia. The data show that there is a relatively low share of highly skilled non-manual employees in Croatia – just 28% compared to 39% in the EU-25 - and a significantly lower share than in Hungary and Slovenia. The share of high-skill non-manual employment in Croatia is lower than in all the other countries except Romania.

Table 2: Employed Persons aged 15 and more by occupation in their main job, 2005 (%)

	Highly skilled non-manual	Low skilled non manual	Skilled manual	Elementary occupations	All employment
EU-25	38.6	24.9	26.8	9.7	100.0
UK	41.0	30.9	17.4	10.6	100.0
Slovenia	37.8	20.0	35.8	6.4	100.0
Hungary	34.3	23.7	33.7	8.3	100.0
Croatia	28.4	25.7	38.2	7.7	100.0
Romania	20.9	13.8	54.8	10.6	100.0

Source: Jouhette, S. and Romans, F. (2006) EU Labour Force Survey Principal Results for 2005, EUROSTAT Statistics in Focus, Population and Social Conditions 13/2006

Figures 1-4 show the evolution of the structure of skills and occupations over time. The data are taken from the ILO Laborstat database[27] and cover the period from 1998-2005. Figure 1 reveals that in recent years the proportion of blue collar workers in employment in Croatia has increased more rapidly than the number of white collar workers, indicative of a low-skill strategy of business growth. Only recently, since 2004 has this pattern begun to reverse and the proportion of white-collar workers to increase. The increased share of blue-collar workers in employment after 2000 is of some interest as it appears to go against the global trend towards an increasing share of white-collar workers. Furthermore, Figure 2 shows that the proportion of unskilled workers in employment in Croatia has increased more rapidly than the

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[27] Data on occupational categories is available for several countries on the basis of the ISCO-88 standard classification. The classification provides ten broad occupational categories. These can be further aggregated into broad skill categories. ISCO-88 uses four skill levels which are partly operationalised in terms of the International Standard Classification of Education (ISCED) and partly in terms of the job-related formal training. According to this classification, the highest skill level is associated with professional occupations, the second highest with technicians, the lowest with elementary occupations (unskilled workers) and the rest form an intermediate 'third' level of skills.

number of skilled workers between 1999 and 2004 (the proportion of skilled employees decreased from 57% to 55% of the employed labour force).

Figures 3 and 4 present the changes in skill proportions within the group of blue-collar and white-collar employees separately. They reveal that there has been relatively little change within the group of blue collar workers between skill groups. The proportion of skilled blue-collar workers in employment fell marginally from 60.6% in 1999 to 59.9% in 2005. A similar picture emerges considering the changes in skill mix within the white-collar group. A noticeable reduction in the proportion of high-skill white-collar employment took place between 1999 and 2001, but this was reversed by subsequent increases in the share. Overall there is no evidence of skill-biased technical change in Croatia and the overall impression is one in which little structural change is taking place. If anything, a tendency towards a low-skill, low-technology path of business investment and economic development is revealed by these data.
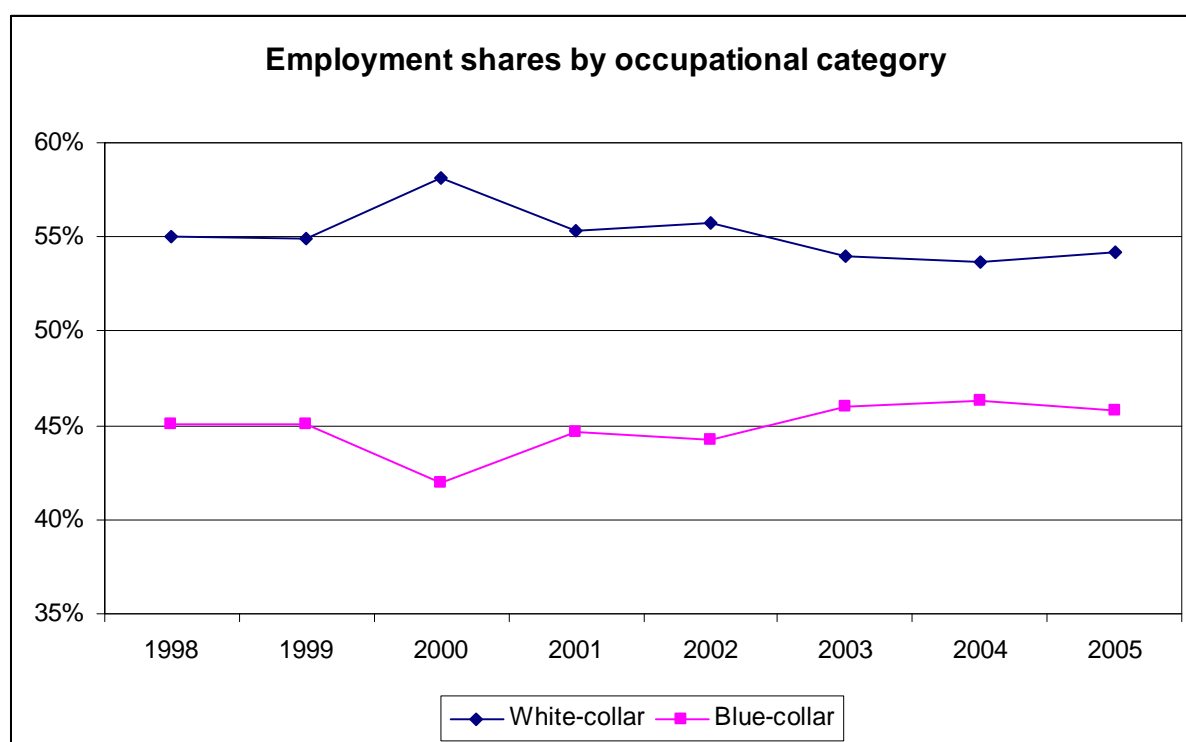
Figure 1
Source: ILO Laborstat Database; ISCO-88 categories.
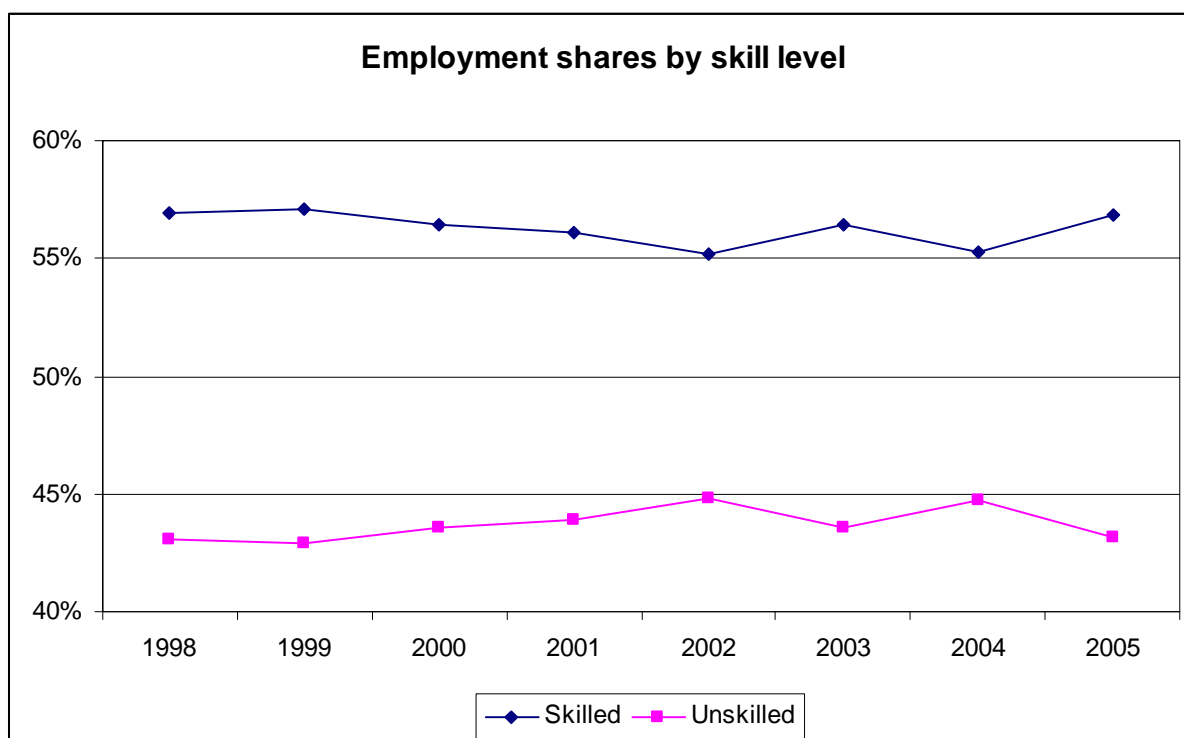
Figure 2

Source: ILO Laborstat Database; ISCO-88 categories.
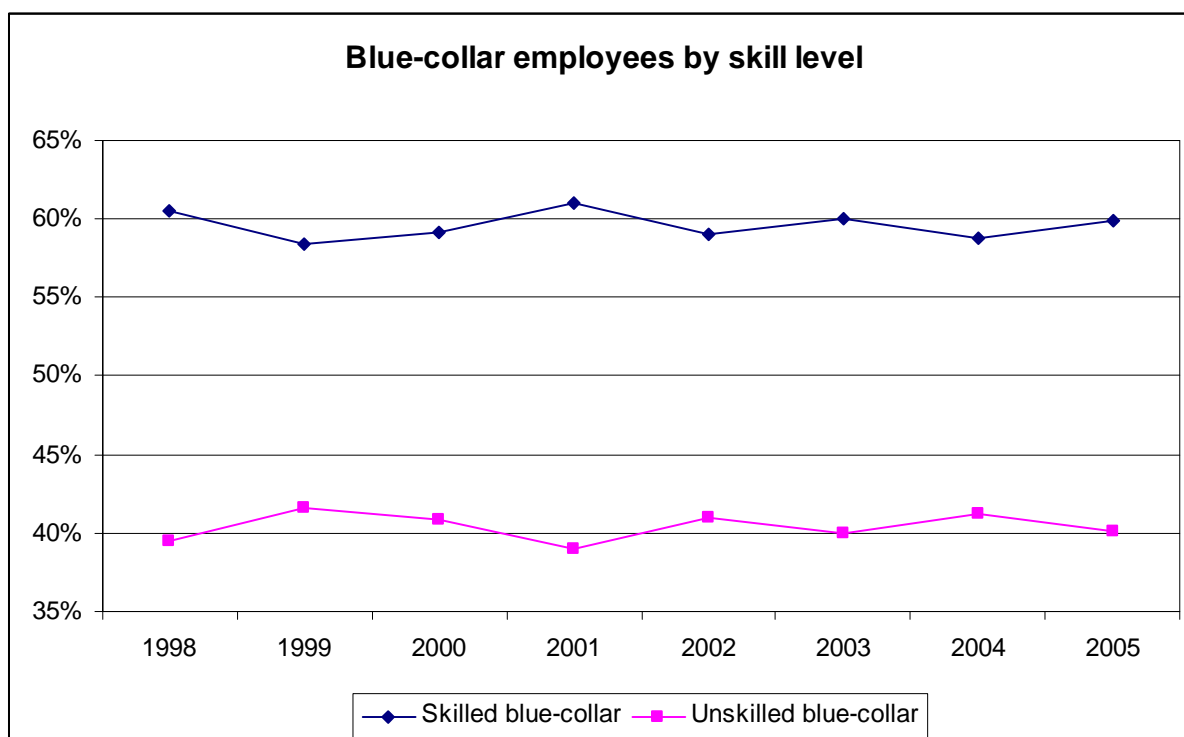
Figure 3

Source: ILO Laborstat Database; ISCO-88 categories.

White-collar employees by skill level
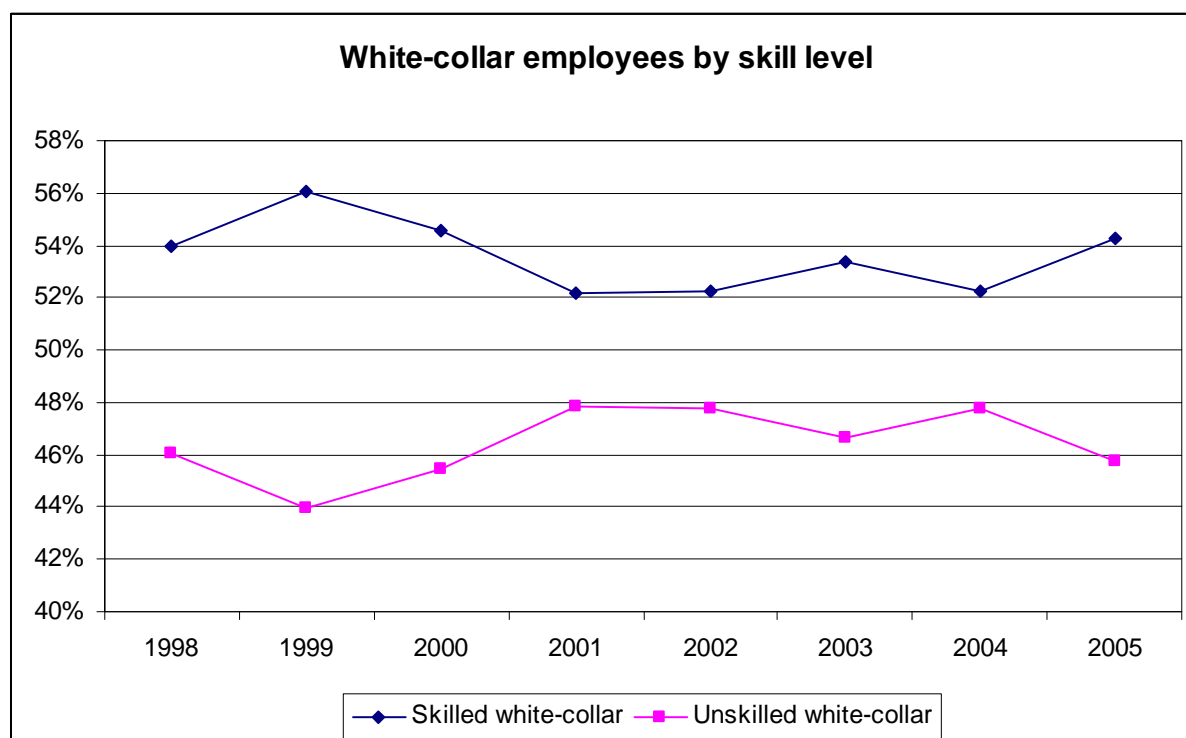
Figure 4

Source: ILO Laborstat Database; ISCO-88 categories.

4. CONCLUSIONS

This paper has investigated the policy and institutional framework to support improved links between research and higher education institutions and the business community in general and the SME sector in particular. Policy makers in Croatia have succeeded in establishing active programmes of knowledge transfer along almost all relevant dimensions and are putting more and more emphasis on that area, especially in the last few years. Yet, doubts remain as to the effectiveness of these programmes in fostering knowledge transfer between research institutes, universities, and the private sector (Singer and Lauc, 2004; GEM 2002-2005 Report, 2006). The policy outcomes of the innovation and knowledge transfer between academic and business organisations in Croatia are still rather modest and there is ample scope for improvements in this area. Policies to support technology parks and business incubators have failed to generate much spin-off activity. Despite many policy initiatives spin-off activity is weak, and the performance of the science parks and business incubators is poor. Technology parks and incubators suffer from lack of support, weak protection for intellectual property and bureaucratic management.

What are the reasons behind these inadequate policy results? In seeking an answer to this question we have focused attention on the skills of the workforce. We contrast two possible strategies of business development in transition economies such as Croatia. The first low-skill strategy relies on the use of low-skill, low-cost labour, and on cost reduction through the substitution of unskilled labour for high-tech capital. The second, high-skill strategy is a more socially responsible business strategy which emphasises high-skill, high-technology investment, improved innovation and knowledge transfer with employee-friendly working

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conditions. Both approaches are capable of contributing to improved international competitiveness, but have different implications for the success of knowledge-transfer policies and for the improved competitiveness of the Croatian economy in the long-run. Businesses which focus on the low-skill approach to investment are likely to display little interest in successful collaboration with research and higher education institutions for knowledge transfer. Although this may be a successful short-term strategy, in the long run with increased global competition and increased integration into the EU economy, this type of strategy is unlikely to be sustainable. The second more socially responsible type of business is likely to have a far greater interest in successful and effective collaboration with knowledge-transfer programmes and policies. Businesses which focus on this type of strategy are far more likely to build up the adaptable business competencies which will be the key to success in the competitive EU and global markets of the future.

In the early years of transition in Croatia, effective restructuring and the adoption of new technologies was delayed by an emphasis on insider privatisation, and on the partial privatisation of formerly socially owned enterprises. At the same time the entry of new small private firms which form the bulk of the SME sector has been slow, and subject to many institutional barriers (Cuckovic and Bartlett, 2007). More recently, entry barriers are being lowered and improvements in the business environment are reducing barriers to SME growth. As employment in SMEs increases closer to EU levels, the demand for labour from the SME sector is likely to change. Some SMEs will prosper in high-growth, high-technology sectors which will have large demands for skilled labour; other SMEs will be located in low-skill sectors such as retail trade and low-skill services. Which of these patterns predominate will depend upon strategic decisions by individual businesses to follow the path of high-skilled, innovation-intensive transition with linkages to sources of knowledge transfer whether public (local universities and research institutes) or private (e.g. foreign companies investing through FDI inflows in new technologies in Croatia).

In the coming years the pace of restructuring is expected to speed up in response to the pressures of the EU accession process, the pressure of increased market competition, and the effect of increased inflows of foreign direct investment. As Croatia has become more open to foreign investment, and as market competition has become more intense from imported goods, more and more companies are likely to turn to a strategic approach to restructuring, investing in new technologies and becoming competitive on international markets. The government has a role to play in enhancing the adoption of these new technologies, in promoting the transfer of knowledge to the business community to boost innovation, and in encouraging companies to invest in employee skills. Science and technology policy has a critical role to play in stimulating and facilitating the adoption and transfer of new technologies from universities and research institutions. More attention should be placed on building trust between the academic and business communities to overcome the inherent market failures in the process of information and knowledge transfer. The research institutes and universities need to become more flexible and open in order to overcome these difficulties and take advantage of the opportunities for the commercialization of research. This effect can be facilitated by the process of network formation, and personnel transfer between the academic and scientific communities and the practical world of business enterprise. In promoting these elements Croatian science and technology policy is moving in the right direction. In the future, increased inflows of FDI will increase the rate of technology transfer and Croatia needs to be able to capture the advantages of these flows by maximising local spillover effects to the domestic economy. Croatia's universities and research institutions have an important role to pay in ensuring that such spillovers are actualised.

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Policies to promote domestic knowledge transfer through university-industry partnership to promote spin-offs should be further developed, and should attempt to forge links between local SMEs and incoming FDI investments. However, the business sector also needs to be more responsive to the policy initiatives of the government, and to make its own transition from low-skill strategies to high-skill knowledge-based strategies of business development.

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THE MICROFINANCE MODEL IN POST-WAR BOSNIA AND HERZEGOVINA: A DEVELOPING COUNTRY POLICY REPRODUCING A DEVELOPING COUNTRY ECONOMY

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1. INTRODUCTION[1]

> "One recalls how Western professors (now senior colleagues of the current crop of advisors) went out to Japan and Korea during their rapid growth spurts, telling policymakers that they could expand ever so much faster if they would just liberalise their systems. They were politely received – and their suggestions ignored. Will the leadership in possibly stagnating postsocialist systems have the courage to follow similar nonliberal convictions?" (Lance Taylor, 1994: 48).

The commercial or 'new wave' microfinance model now constitutes the most important local strand of the neo-liberal political project that has uniformly shaped economic policy throughout developing countries since the early 1980s, and in the transition economies since 1990. With upwards of US$100 million of international funds channelled into establishing MFIs in Bosnia and Herzegovina (B&H) since 1996, the commercial microfinance model has been very deliberately positioned as the central policy component of its post-war poverty reduction and community-level reconstruction and development. Leading the way in B&H was the World Bank with its US$40 million Local Initiatives Project (LIP). Alongside LIP came a large number of other microfinance programmes involving other international agencies (EBRD, IFC, UNDP), bilateral bodies (KFW) and international NGOs (CARE). Importantly, almost all of the MFIs entering B&H chose to follow the market-driven operating rules now defined by the World Bank to be 'best practice' – this is to say that MFIs must above all else prioritize eventually becoming financially self-sustainable through 'earning their keep on the market'.

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[1] An earlier version of this paper was presented at Economic Policy Research Unit (EPRU) Seminar "Balkan economies: Studies on Non-Standard Phenomena", September 26, 2006, UNITIC, Sarajevo, Bosnia and Herzegovina. Many thanks to those who subsequently provided comments on that paper. A version of this paper has been published in Dichter and Harper (2007).

The international community almost immediately began to classify the microfinance model in B&H as one of the most impressive international examples of microfinance 'best practice'. The World Bank rapidly registered its LIP programme as its best development programme in the country, and possibly its best microfinance programme worldwide. Microfinance lobbying bodies financially supported by the World Bank and (therefore) fully in agreement with its neoliberal policy perspective, such as the Warsaw-based Microfinance Centre (MFC), also began to pick up on and publicize the B&H experience right across the transition economies. And specifically with regard to the post-conflict reconstruction and development context, the very widespread feeling was that, as Nancy Barry of Women's World Banking put it: 'Any war-torn country should look to Bosnia as a role model' (quoted in Dolan, 2005).

The aim of this chapter is to briefly examine the microfinance model in the case of post-conflict B&H. Critically examining the available evidence and trends in the supposedly 'best practice' case of B&H should help to begin to separate the hard reality from the hype and rapidly proliferating myths surrounding the supposedly awesome power of microfinance in both transition and developing countries alike.

2. SOME BACKGROUND TO THE B&H ECONOMY

Following the end of the Second World War, the newly designated Socialist Federal Republic of Yugoslavia (SFRY), including the constituent Republic of B&H, immediately adopted a Soviet-style central planning model. For a number of reasons, the central planning model was abandoned in 1948. In its place came the system of 'worker self-management', a form of industrial democracy whereby each enterprise was turned over to its employees to be operated and managed in a broadly democratic fashion. Over the next two decades the Yugoslav economy boomed, becoming known as the Balkan 'Tiger' economy of its day. At the same time, the previously under-developed economy in the Republic of B&H also finally began to make significant progress.

By the 1980s the Republic of B&H economy comprised a mixture of many medium-sized and a small number of large socially-owned industrial units using modern technologies and able to export on a genuinely competitive basis to many countries, particularly to the Middle East. The share of export earnings from the four largest conglomerates based in B&H (Energoinvest, UNIS, Sipad and Hidrogradnja) accounted for up to 40 per cent of the Yugoslav total. At the industrial core of B&H was a very substantial military-industrial complex producing for the Yugoslav army and for export. B&H also had an agricultural sector composed of mainly small-scale family and semi-professional farming units that provided a high level of food self-sufficiency and important additional local income generating possibilities, since farmers could often combine their work on the land with paid work in the new modern factories springing up. B&H also possessed a growing privately-owned SME sector that was also in the process of beginning to react positively to new opportunities opening up in the 1980s.

The economy of B&H thus stood in a reasonably good position in the late 1980s to take advantage of the upcoming changes and likely advent of new technologies, innovations, investments and market opportunities. However, any sort of advance was very quickly brought to a halt by the break-up of the former Yugoslavia and the subsequent outbreak of conflict in 1992. A vicious civil war ensued for nearly four years, Europe's worst conflict

since the Second World War. When a peace agreement was concluded in late 1995 with the signing of the Dayton Peace Agreement (hereafter 'Dayton'), the now independent B&H was in a pretty desperate state. Much of the infrastructure was destroyed, many factories abandoned, unemployment was endemic, poverty was at very high levels and inequality had risen dramatically. Immediately following Dayton, the international community set into motion a major reconstruction and development package. On a per capita basis the financial package offered to B&H was to prove to be in excess of the Marshal Plan that helped Western Europe successfully reconstruct after 1945. Along with this generous financial package came technical assistance from the World Bank, IMF and various other foreign economic advisory teams that helped the new B&H government unroll the standard neoliberal package of policy reforms.

In spite of some initial progress, however, it was becoming readily apparent by as early as 2000 that the B&H economy was actually failing to recover. Looking behind the statistical anomaly of ultra-rapid GDP growth in the first few years after 1996, it was found that very little *sustainable* economic development had actually taken place since Dayton. The international development community in B&H finally began to sit up and take notice. In 1999 the EU/Bosnia-Herzegovina Consultative Task Force, a policy coordinating body established in June 1998 by the Council of the European Union, convened a working group to develop an urgent industrial policy response to the worsening situation. It was particularly worried about the rapid decline of the existing industrial sector and the collapse of the associated institutional fabric. Serious concern was expressed about the almost complete lack of new private industrial SMEs since Dayton. Local industrial policies had actually been emphasized by local experts for a long time before and after 1995, the Consultative Task Force noted, and also repeatedly emphasized by many international analysts at the time. But by and large the international financial institutions[2] considered such interventionist ideas to be anathema, and so blocked their adoption (and even their discussion). Overall no real substantive changes could therefore be made to the neoliberal policy framework within which B&H was expected to recover and grow into the longer term.

After the new millennium, the output of bad news increased exponentially. UNDP was bleakly reporting in its *Annual Report 2002* that the chances of sustainable economic and social development in B&H were now very minimal indeed, given that the population had effectively been, condemned to reliance on a grey, trade-based, unsustainable economy rather than a production-based one' (UNDP, 2002).

As international donor financial support was beginning to wind down, the head of the World Bank in B&H was forced to argue that the country actually now needed major *new* cash infusions (of around US$250-300 million a year) otherwise it was heading for an 'economic abyss' (*International Herald Tribune*, 18th February 2003). An in-depth analysis by the independent European Stability Initiative went into considerably more detail on the alarmingly negative economic and social indicators (European Stability Initiative, 2004). The US-based and US government financed Centre for International Private Enterprise (CIPE) was forced to concur with the direction and urgency of the European Stability Initiative's analysis, going on to note in its own words that economic policy in B&H had effectively led to:

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[2] That is, the World Bank, and IMF, supported later on by their ideological affiliates the EBRD and the OECD through the multi-donor Investment Compact process.

> Bosnia going through a process of de-industrialisation on a devastating scale. The new private sector is dominated by microenterprises in trade and basic services, generating very little employment. Bosnia seems to be developing backwards: where once it manufactured jet aircraft, it now exports aluminium; where once it exported furniture and finished wood products, it now sells only raw timber. Outside of the larger cities, many Bosnians are abandoning the towns and returning to the land their families left a generation ago. Forced out of the formal economy, they scrape together a living through some combination of casual labour, informal trade and subsistence agriculture (CIPE, 2004)

Initial IFI predictions that by simply unleashing brute market forces in post-conflict B&H a sustainable recovery would quickly and automatically be vectored into place, thus proved to be as naïve and as wildly inaccurate as in the rest of post-Communist Eastern Europe.[3] At the same time as most developing countries have been desperately trying to move up the value-added, technology and industrial ladders, after Dayton the still quite highly industrialized and technically sophisticated B&H economic structure was effectively allowed to collapse. What has been the contribution of the microfinance model (positive, neutral or negative) to this increasingly depressing picture?

3. THE MICROFINANCE MODEL COMES TO B&H

Very quickly after Dayton and with much fanfare, the international community launched the microfinance model in B&H. The microfinance model was very much seen as a 'quick-impact' poverty reduction policy that would provide a modest cash income to the 'entrepreneurial poor'. But it was also expected that it would play a crucial role in establishing both the growing enterprise population and institutional support foundations necessary for the longer-run 'bottom-up' sustainable growth and expansion of the local economy. In other words, an expanding microenterprise and SME sector was expected to gradually constitute the dynamic core of a revitalizing B&H economy.

Incorporating the microfinance model into the economic policy framework adopted by the first post-conflict government in B&H was not undertaken without some initial resistance, however. The microfinance model's intimate association with a range of developing countries that were all finding it difficult to point to obvious nodes of sustainable local economic development in the wake of significant quantities of microfinance, such as in Bangladesh and Bolivia, raised some real suspicion in B&H government and policy elite circles as to the likely outcome of the microfinance model in their country. The uneasy feeling was that perhaps the main international sponsors behind the microfinance model specifically had in mind for the B&H economy a similar non-industrial, largely informal economy-based future.[4]

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[3] The 'transition depression' that rocked all of Eastern Europe after 1990, particularly severely in Poland, was a complete surprise to the IFIs, key western governments and their high profile international economic advisors (see Andor and Summers, 1998).

[4] This point was articulated a number of times during discussions the author had with senior government personnel, academics and local employees of several international organizations during a research visit in 1998, and then also in February, 1999, on the sidelines of a major conference on the microfinance model held in Sarajevo.

However, the international community's belief in the microfinance model seemed to be justified very quickly. Almost immediately after Dayton very many new microenterprises began to kick into operation right across B&H, a large number of them established with microloans from the first MFIs established with the support of the international community. The statistics began to corroborate what was becoming increasingly visible on the ground. In the immediate aftermath of the conflict, the number of enterprises rapidly expanded. Even in the latest time period - 2001 to 2004 – growth in the number of microenterprises and SMEs has continued apace, with a nearly 350 per cent increase in the number of microenterprises employing between one and five employees, while the number of SMEs (11-50 employees) increased by around 250 per cent (Ministry of Trade and Foreign Economic Relations, 2005).

The expansion of the microenterprise and SME sector in B&H has had a number of fairly distinct and inter-related characteristics. First, the overwhelming majority of new entrants were found to be operating in the informal sector. Nearly all of the new MFIs established from 1996 onwards began with a firm commitment to support only formal sector ventures, based on their understanding that an officially sanctioned expansion of a Southern Italy-style informal sector would constitute a negative development for B&H. When it became clear to the MFIs that they would simply not be able to achieve financial self-sustainability without extensively dealing with the informal sector, however, this requirement was quietly dropped (Goronja, 1999).

Moreover, confounding the early optimism that informalization was merely a temporary status and would disappear with increasing internal success and external regulation, it turned out that most informal sector ventures once started did not seek to become formal sector operations. For one thing, intense competition from other informal sector ventures could only be met by attempting to 'beat them at their own game', not by moving into formality and accepting added expenses and responsibilities (taxes, social contributions, adhering to health and safety regulations and so on). In recent years, the informal sector has strengthened its hold upon the B&H economy, with informal sector employment rising from 37 per cent of total employment in 2001 to 42 per cent in 2004, (World Bank, 2004) pointedly now bringing B&H more into line with the majority of developing countries.

Second, the overwhelming majority of new entrepreneurial initiatives established in B&H after 1995 have turned out to be very simple, easy-entry, no technology business ventures, particularly simple 'buy cheap and sell dear' type operations. In its first period of operation, for example, the World Bank's LIP client portfolio was dominated by small-scale trading ventures, making up 44 per cent of the total number of clients supported, amounting to 15,652 individual businesses supported (World Bank, 1999), while even higher proportions of petty traders were involved in most other MFIs operating in B&H.

Third, while the rate of microenterprise entry has been impressive, so too has been the rate of exit. Displacement effects were very high on account of the very simple and very similar business areas entered by most microfinance recipients, leading to intense competition, declining margins and exit for those least able to cope. The World Bank's 2005 evaluation of its LIP programme pointed out that 30 per cent of the microenterprises surveyed in 2002 had failed after just two years (Dunn, 2005). The World Bank-EBRD administered BEEPS Survey in 2005 found that after two years, 23 per cent of its original panel of SMEs could not be recontacted because they had closed down (EBRD, 2005).

In short, thanks to the significant infusions of international donor financial and technical support, the microenterprise sector in B&H was given a significant boost after 1996, and it subsequently expanded quite dramatically. The typical household in B&H now survives through a combination of subsistence agriculture alongside a variety of very small-scale informal sector activities requiring very little capital, technology, scale, skills or knowledge. The overall infantilizing trends in the B&H economy noted above are thus almost perfectly reflected in the programmed output of the microfinance model. In the next section we look at the all-important issue of causation. But what is for sure is that, howsoever it came about, the increasingly primitive economic structure in B&H is now very unlikely to lead to future sustainable growth and development. As noted above, this very fundamental point has been conceded by an increasing number of local and international organizations working in B&H.

4. THE MICROFINANCE MODEL AND ITS IMPACT IN B&H

The basic claim made for the microfinance model in B&H, as elsewhere, is that the additional income and employment quickly generated through microfinance-induced business activity has been an important factor in immediate poverty reduction and household reconstruction (Matul and Tsilikounas 2004; Dunn, 2005). Individuals and families that received a microloan were able to engage in some sort of business activity that generated an income sufficient to repay the microloan and leave something left over for other uses, including immediate consumption, utilities, health and education. As a result, poverty was reduced, households were able to use their earnings to invest in a variety of assets, and perhaps in some cases a few employees were taken on to create a modest local employment multiplier.

However, while these short-run gains of the microfinance model have been extensively aired by the MFIs themselves and by their international donor sponsors, the longer-run impact – be it positive, neutral or negative – has not been revealed to anywhere near the same extent, if at all. The key question for economic development specialists, as perhaps opposed to the narrow concerns of the sub-set of microfinance 'technicians' (repayment rate, financial sustainability, client retention rate and so on) is: to what extent is the emerging microfinance-induced microenterprise structure and social impact consonant with establishing a sustainable local economic and social development trajectory? The question must be urgently posed because there is mounting evidence that we may be witnessing in B&H an example of what Ellerman (2005) calls an 'anti-development' intervention – an intervention that, like bad medicine, produces some immediate relief (poverty reduction) but at a price of substantially increased longer-run pain, and eventually 'death' (to the chances of sustainable economic and social development). It is to this crucial issue in B&H that I now turn through an examination of five key sustainable economic and social development variables.

4.1. Material support for the deindustrialization and infantilization of the B&H economy

A good many economists predicted at the beginning of the transition process in Eastern Europe that neoliberal transition policy would inevitably, and quite unnecessarily, destroy a very large part of the industrial sector and technological base (Amsden 1994; Taylor 1994). As Amsden et al, (1994) stressed, the imperative in Eastern Europe was for state mediation and an industrial policy that could help the best-placed enterprises (irrespective of ownership, sector or size) to restructure and survive in the new market economy.

This line of argument also implied the need for a specifically *local* industrial policy approach to deal with the crucial microenterprise and SME sectors. A well-designed local industrial policy would need to involve the establishment of a stock of pro-active long-term focused local development and financial institutions that could support new ventures and marshal the best of the existing stock of microenterprises and SMEs towards higher levels of productivity, innovation and technology intensity, encourage vertical and horizontal interaction and information exchange, and provide direct encouragement for new microenterprises and SMEs to 'organically' emerge from the very many declining large industrial enterprises. As Brunner (1996) warned with regard to the East European post-communist situation,

> Successful East Asian economies have shown that industrial and regional policy programmes are a necessary part of a strategy that does not rely on a belief in a spontaneous rise of the entrepreneurial phoenix. From past experience it is clear that functioning markets and capable market agents have to be created and sponsored by conscious institutional design and public policies.

However, there was never any attempt to establish a local industrial policy for B&H. Nor was there any significant response to the very public demands from remaining industry/production-based company owners and managers in B&H for special investment financing institutions to urgently help them restructure, reinvest and retool in order to compete in the new marketized economy. [5] Instead, the B&H economy was endowed with the 'market-driven' microfinance-led reconstruction programme. The publicly expressed hope was that the 'entrepreneurial phoenix' would be spontaneously (re)born through a rapidly expanding and increasingly sophisticated microenterprise and SME sector.

The crux problem here, however, is that the microfinance model contains an 'adverse selection' anti-industrial bias. This bias works by filtering out those potential entrepreneurs wishing to work in the industrial sector but who cannot hope to service the onerous terms and conditions offered by the commercial microfinance institutions, and filtering in those ventures incorporating only the very simplest of non-industrial business ideas that just about can. We might call this framework created by the commercial microfinance model a 'disabling environment'. Accordingly, as noted above, most microfinance in B&H has overwhelmingly gone into establishing tiny, informal, non-industrial ventures, with almost nothing directed towards financing potentially sustainable small-scale industry-based ventures. The rub is that the resulting 'shallow' structure of microenterprises is not associated anywhere with the construction or reconstruction of a sustainable local, regional or national economy. [6]

In B&H, however, very much as in the rest of Eastern Europe, the comparatively high level of industrial development, skills and technology in 1995 represented a once only opportunity to establish a core of small-scale, innovative, relatively technology-intensive, industry-related ventures. B&H's substantial military-industrial complex was one particular area where such conditions resided, suggesting this sector as the obvious entry point.[7] As Ellerman (2005) has

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[5] For example, a 1996 World Bank survey (World Bank, 1997) of mainly industrial/production based company owners found that their number one priority was to be able to access investment capital.

[6] For example, see Weiss, 1998 and Chang, 2002.

[7] One obvious post-conflict example that could have provided some useful lessons at this specific juncture (1996) was the recovery and re-industrialisation of the Emilia Romagna region of central-northern Italy after 1945. Creatively utilizing what was left of its military-industrial sector in order to give birth to a raft of relatively technology-intensive small firms, the very pro-active regional and local governments and other support

argued, such an industrial inheritance constitutes a hugely valuable resource of entrepreneurial, industrial and technological 'genetic material' that could and should be catalyzed by outside stimulation and assistance and recombined into rafts of new smaller enterprises.[8]

But working through the microfinance model which, as intended, was pretty much the *only* major local financial support structure in B&H geared up to new start enterprises,[9] such crucially important potentially sustainable local economic development trajectories were repeatedly ignored. Instead, as we have noted, funding was channelled into a raft of largely unsustainable trade- and household-based economic activities. The typically more sophisticated SME sector also remained extremely 'shallow' in spite of its significant industrial inheritance and post—Dayton financial bonanza, as Table 1 indicates. The EU's urgent call in 1999 for an industrial policy response to the almost total lack of new private industrial ventures was just one of the indications of the seriousness of the situation. But nothing was done. This sub-optimal development trajectory represents a huge opportunity cost in B&H directly attributable to the commercial microfinance model.

Table 1. Sectoral distribution of SMEs in BiH

Year	Trade	Manufacturing (mainly 'handicrafts'	Construction	Services	Other
2001	45%	18%	9%	12%	16%

Source: UNECE (2003: 95)

The practical significance of the 'adverse selection' losses brought about in B&H through the commercial microfinance model can be simply illustrated by the experience of the Energoinvest company network, once one of the most technically advanced, innovative and R&D-driven companies in Eastern Europe. After 1996, Energoinvest was forced to seek ways to drastically reduce its workforce. At the same time, Energoinvest provided an almost ideal practical 'breeding ground' for its highly skilled employees to start new and spin-off entrepreneurial ventures based, not on simple arbitrage, but upon reasonably sophisticated and innovative product and process ideas. However, the overwhelming majority of those who responded to the call to set up their own such innovative business quickly found that realistically they could not meet the strict conditions required – namely, high interest rates and short repayment periods – in order to access funds from the network of MFIs. The result was that virtually all of the potential new small business ideas arising from employees within EnergoInvest were aborted or else substantially 'downgraded' into something that the MFI sector would be willing to finance, such as a shop or a simple trading venture. [10]

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institutions were able to support into operation what was to become the core of a world-beating industrial SME sector (see Capecchi, 1990).

[8] A more recent practical example referred to by Ellerman is that of the ARIA Project in Moldova, an innovative World Bank project that successfully gave birth to a raft of new small and dynamic enterprises within the collapsing hulk of an old state owned industrial enterprise (see Ellerman and Kreačić, 2002).

[9] Alternative local financial models proposed by some of B&H's best economists were either ignored or blocked by the IFIs (see Bateman, 2003). It also didn't help that B&H's new private commercial banks were and remain extremely risk averse, for example 'investing' most of the capital they raise locally in German and UK bank accounts (see Caušević, 2002).

[10] Interviews by the author with ex-*Energoinvest* employees and former *Energoinvest* managers, summer 1997 and 1999, and 2002.

In sum, the microfinance model has given rise to an 'adverse selection' bias that has materially contributed to the hugely damaging de-industrialization and infantilization trend evidenced in B&H since 1996. Given that B&H possessed a comparatively high level of industrial development, technology, innovation and technical skills prior to the war – an inheritance that most developing countries today are, and should be, desperately striving to attain – the wilful abandonment of this industrial inheritance as a source of enterprise development is an enormous setback to its hopes of establishing at any time in the future a sustainable growth and development trajectory.

4.2. The creation of an atomized 'unconnectable' local enterprise sector

It is increasingly accepted that the tissue of interconnections within the local enterprise sector is one of the crucial determinants of a local economy's ultimate sustainability, and not simply, if at all, the *numbers* of enterprises therein. With a variety of enterprises engaged in more demanding areas with regard to technology, innovation, skills, coordination and planning, managerial competences and so on, it is possible for a local economy to gradually advance and prosper in a sustainable manner. This insight is pretty conclusively underpinned by a number of research traditions, such as the new economic geography, industrial districts, social capital theory, cluster and network theory, value chain analysis, the role of technology and innovation, and so on. As Weiss (1988) sums up, reflecting on the great successes of both the Italian and Japanese microenterprise sectors since 1945, 'the core of modern micro-capitalism is not competitive individualism but collective endeavour'.

In B&H, however, generally no strong positive spill-over effects arising from 'connectedness' are possible precisely because the agglomerations of microenterprises and SMEs arising from the microfinance model to date are overwhelmingly unsuited to the task. The microfinance model in B&H has verifiably succeeded in producing significant *numbers* of new microenterprises, as Table 2. indicates. However, the overwhelming majority of these individual microenterprises are completely unsuited to forging the efficiency-enhancing horizontal ('proto-industrial districts') and vertical (sub-contracting) connections seen everywhere else as crucial in establishing and firmly embedding a sustainable growth and development trajectory in place.

Table 2. Total number of incorporated enterprises and partnerships in BiH

Year	Total	0-9 employees	10-49 employees	50-249 employees
2001	30,200	25,600	3,380	1,020

Source: UNECE (2003: 89).

4.3. Programmed failure to reach minimum efficient scale of operations

In all enterprise sectors there exists a minimum efficient scale of production, which is the level of production below which, for a variety of reasons (required technology, economies of scale and so on), it is very difficult indeed to become competitive. The structure of microfinance generally ensures that the microenterprises it supports, in virtually whatever sector, are all well below the minimum efficient scale for that sector. The end result is the entry of large numbers of microenterprises all with very little chance of becoming competitive in the sector within which they operate.

That the microfinance model is patently unsuitable for anything but the very smallest ventures within any particular sector is widely accepted, including in B&H. A major survey by Matul and Tsilikounas (2004) revealed that many people in B&H unwilling to access microloans felt this way because, 'loan terms are too short for business start-ups and loan sizes too small…loans are too small and do not allow to start a "true business"…loans are too small for business expansion'

Given that many potential entrepreneurs in B&H considered microfinance insufficient to capitalize a 'real' business to the required level for their particular sector, we must then enquire as to what was the end result for those who *did* anyway choose to utilize microfinance. Consider the first wave of microfinance-supported activities in B&H after 1996 – shops and kiosks. This sector began to run into the sand around 1999-2000. Market development and saturation effects (namely, increased competition from other new small ventures, new supermarkets) were combining to undermine their ability to compete. Already wafer-thin margins and turnover began to decline even further, in turn reducing the already minimal level of earnings and wages in the sector. The rate of exit began to rise. At this point, some MFIs in B&H could see the writing on the wall and thenceforth a number began to bar their microloans from being used for such increasingly risky activities. But as many such microenterprises began to grind to a halt right across B&H, plunging those just able to survive into a particularly dispiriting form of 'entrepreneurial poverty', the MFIs were able or willing to do very little to help them. Some MFIs were anyway focusing on which sectors to move into next in order to keep themselves in business.

The next identifiable move made by the MFI sector in B&H was into very small-scale agricultural ventures. From around 2000 onwards, microloans were increasingly being offered to those individuals wishing to undertake some very basic agricultural activity - purchase an additional cow, buy some seeds, repair a barn or store room, or buy the year's required amount of fertilizer. But in the agricultural sector too, once the local market developed, and particularly as local agricultural processors in B&H were privatized and profit considerations forced them to rationalize their local supplier base, this latest wave of very small microfinance-supported subsistence farming operations also ran into a wall. In the dairy industry, for example, the microfinance-induced proliferation of two-to-three cow farms provided a short-term income boost to the farming family. However, these short-term gains were quickly lost for very many farmers when, as predicted, their new patently inefficient farming unit was a little later winnowed out of the local dairy supply chain.

Of course, in B&H some small-scale microfinance-assisted farmers have survived, and a tiny few have even prospered (thus becoming role models for the MFIs and their international donor sponsors). But it is widely recognized in B&H that the emerging overall structure of very tiny farming units is a quite inappropriate foundation for future sustainable growth and development in the agricultural sector. Material support for its perpetuation and extension, as opposed to its conversion, therefore not only added to the huge structural problems already present in the agricultural sector but was a significant waste of scarce international and local financial resources to boot.

In sum, the widespread assisted entry of microenterprises all operating well below minimum efficient scale for their particular sector carries grave risks and serious costs into the longer term. Typically, the structural distortions created require later attention from policy-makers, and at a not insignificant cost. At the same time, attempts to survive through hyper self-exploitation ripple negatively across the entire microenterprise sector, leading to falling

margins, reduced reinvestment and 'entrepreneurial poverty'. The inevitable decline and eventual exit process for the majority of such unfortunate individuals is then painful, both in financial terms (loss of savings and physical assets, incurring of additional debts) and in personal terms (loss of confidence, loss of reputation, severed social connections). It is clear that there are many negative social side-effects arising in B&H in this regard, such as depression, increased incidence of household violence, reduction in neighbourliness, and so on (see for example, World Bank, 2002). The routine creation of unsustainable rafts of microenterprises in B&H, and then their very predictable collapse - 'houses of cards' – thus involves many long-run negative financial impacts and social costs that can, and probably do, outweigh any initial poverty reduction gains.

4.4. Facilitating trade deficits and import dependency

One of the most damaging features of the neoliberal programmes that developing countries were forced to endure during the 1970s and 1980s was the collapse in local manufacturing and agricultural production brought about by instant trade liberalization and an ensuing flood of (often subsidized) imports. Thanks to the basic operations of small importing and shuttle trading ventures, import dependence was quickly embedded into the system. Crucially, the debilitating longer-run impact of import dependency meant that it ultimately destroyed any short-term poverty reduction gains made during the initial phase of trading sector microenterprise expansion. SAPRIN's (2001) conclusion was that the initial uncontrolled surge of imports needlessly contributes to:

> The failure of many local manufacturing firms, particularly innovative small and medium sized ones that generate a great deal of employment. The decline in domestic manufacturing has followed the flooding of local markets with cheap imports that have displaced local production and goods and has been exacerbated by the absence of an industrial policy to support domestic firms in dealing with new conditions or with shocks in international markets.

Given that simple trading ventures are cheap and easy to enter and require little in the way of special skills, they are very understandably the first destination of many individuals seeking a route out of poverty. And if MFIs are willing to underwrite such business propositions, because the initial profitability is more than enough to deal with their high interest rates and short repayment periods, then a major boost to their numbers is an obvious outcome.

As could have been predicted, therefore, the newly established MFIs in B&H began their life by whole-heartedly engaging with the small-scale trading sector. Simple cross-border shuttle trading quickly became one of the most visible forms of individual business activity right across post-Dayton B&H, requiring only a little cash up front from a microloan to buy or repair a vehicle and to buy some stock while abroad. Not surprisingly, however, the B&H trade balance began to suffer, inevitably diverting scarce foreign exchange from other more urgent areas, and thus damaging the overall prospects for economic growth and development. Of course, calculating quite how much of the negative trade balance has been *specifically* precipitated by the working out of the microfinance model requires deeper study. But even local analysts otherwise sympathetic to the microfinance model agree that the instant splurge of imports was deeply damaging to the B&H economy, and that it was partly attributable to the microfinance model because, 'Microcredit often permanently institutionalises the smuggling of goods and the widespread (though legal) importation of simple, low value added goods that would and could be better produced locally' (Čičić and Šunje, 2002).

4.5. Destruction of local social capital

Social capital is now seen as a major factor in promoting successful local economic and social development, if indeed it is not the 'missing link' in development (Putnam, 1993). However, there is growing evidence in B&H to suggest that the microfinance model very actively *destroys* social capital. First, and more generally, by recasting individual survival as a function of individual entrepreneurial success, the bonds of solidarity, shared experience and trust that exist within poor communities are inevitably going to be undermined. This is a truism. But more specifically, whenever community development and support activities are recast as commercial and strict cost-recovery operations – a central operating principle of the commercial microfinance model – the unavoidable consequence is a degeneration of the level of local solidarity, interpersonal communication, volunteerism, trust-based interaction and goodwill. In post-conflict B&H it is clear that the overarching emphasis upon individual survival strategies (as well as the accompanying inequality) has undermined the previous bonds of community and trust-based interaction that were pervasive throughout the country prior to 1991 and during the conflict itself (World Bank, 2002).

Consider also the effect of the evolving commercialization of most MFIs in B&H. The network of MFIs established by the international community after 1996 was initially warmly welcomed by most ordinary people. MFIs were said to be 'there to help' and to be 'showing their sympathy with the local population' by helping some of the very poorest to escape from their isolation and grinding poverty. However, once it became apparent that many MFIs were beginning to move out of the original market serving very poor and poor people, and into new markets serving the much less poor and the emerging middle class and new business elites, and also moving out of providing microloans for business purposes and into microloans for consumption goods (for example, cars and housing), attitudes began to change. They were just 'businesses' all along. The increasingly obvious concern they were demonstrating for their own survival, rather more than the survival of the local community into which they had been born, thus began to chip away at the MFIs' initially warm relationships with communities, key individuals and local politicians. The predictable outcome over time is that the commercialization inherent to the microfinance model in B&H will increasingly undermine any popular legitimacy and voluntary support from the local community. This development is in sharp contrast to the pre-communist and even communist-era community-based MFIs in B&H and in the wider Yugoslavia (for example, financial cooperatives) that generally evinced significant popular support and community involvement – that is, they actually *constructed* social capital. [11]

Second, the type of microenterprises associated with the microfinance model are, as we have seen above, overwhelmingly informal and largely displaying a limited ability to creatively interact with other businesses. Yet growing informality in B&H is clearly underpinning the already considerable lack of respect for legal process. It has also embedded a mistrust of government, and has encouraged the search for informal and sometimes illegal sources of protection (for example, criminal gangs) and power (for example, corrupt politicians) in order to continue to do business. The lack of regular inter-enterprise connections has been associated with secrecy, an unwillingness to trust, little sharing and few social connections that might substitute for legal process. Moreover, most microenterprises in B&H are also very weak and very typically involve insecurity and hyper self-exploitation (long hours, intense work, poor rewards, undignified working conditions, little security of income and so on).

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[11] For the situation pre-WWII, see Tomaševic, 1955; and for the situation under Yugoslav worker self-management, see Horvat, 1976.

Such adverse conditions have inevitably generated alienation and antagonism towards the wider B&H society that is seemingly indifferent to the plight of those involved, with special enmity reserved for the tiny new business elite enjoying a stratospheric level of power and financial reward that is widely seen (with much justification) as having been illegally or unjustifiably accumulated.

All of these pretty regularly observed outcomes of the commercial microfinance model in B&H are unequivocally associated with the destruction of social capital (Bateman, 2006). The already fragile social foundations of B&H are, thus, further undermined and destroyed. Moreover, such an adverse social outcome in turn has served to further deter local savings, local investment, business cooperation and other key economic growth variables. All told, these very significant drawbacks to the commercial microfinance model in B&H were crucial barriers to sustainable development. Moreover, such emerging problems were certainly not lost on B&H economists, including Čičić and Šunje (2002), who warned that, 'Very much as in Southern Italy, if the legitimacy of semi-legal, arbitrage-based occupational lifestyles is embedded within the local society and polity of B&H, it will eat away at the social capital upon which longer run business success will depend'.

5. CONCLUSION

While the commercial microfinance model established in B&H after 1996 is possibly associated with some short-run poverty reduction impacts, analysis of emerging trends and developments suggests that this immediate gain has been achieved at a very high price indeed. Very little evidence has emerged in B&H to suggest that the commercial microfinance model actually possesses the required 'transformative capacity' to secure genuinely *sustainable* poverty reduction, through genuinely *sustainable* local economic and social development. On the contrary, the commercial microfinance model is quite centrally implicated in the evolution of the disturbingly weak, unsophisticated, anti-social, disconnected and unfair economic and social structures we see in B&H today. Like a rapidly growing weed that hogs the nutrients and sunlight needed by the slower growing crops around it, the commercial microfinance model in B&H has absorbed significant international financial resources, high-level technical expertise, political commitment, valuable time and remaining accumulations of social capital, all in order to roll out a primitive, no-growth 'bazaar economy' redolent of life in B&H 100 years ago.

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PROGNOSTICATION OF EVENTUAL BANKRUPTCY OF ENTERPRISE

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A regular consequence of unsuccessful business management is bankruptcy. It is not suddenly and unreasonably that a business ends up bankrupt; thereby it is possible to prognosticate, foresee and prevent such an outcome. The possibility of bankruptcy can be determined – with a high degree of probability – by existing methods of forecasting,

Financial managers may face a task to identify the most appropriate method for prognostication of eventual bankruptcy in particular circumstances. This article to some extent enables to become more competent in system of indicators and models that are used to prognosticate eventual bankruptcy and in their effective application (with a high probability of preciseness).

There are three ways in the contemporary practice of prognostication of the financial standing with regard to an eventual bankruptcy:

- applying a system of criteria and indicators for diagnostics of possible bankruptcy;
- calculation of the universal solvency index;
- prognosticative calculation of indicators characterizing structural condition of balance.

Today it is possible and also necessary to apply a system of criteria for diagnostics of possible bankruptcy, though it is not completely faultless. As the criteria have various degrees of importance, it is always problematic to determine how and which criteria are enough to speak of an eventual bankruptcy. In order to avoid subjectivity in evaluation of a business it is a matter of necessity mainly to base upon experience of auditing and apply the following system of criteria as a preliminary signal system for more detailed case analysis.

Two–stage system of criteria and signs for prognosticating the probability of bankruptcy according to recommendations from the Committee for Audit Practice (Great Britain)

| The following indicates and criteria suggest possible financial problems and possibility of bankruptcy in the near future. | Serious, recurring losses in basic activity (steady fall in volume of production; declining volume of sales; continuously negative profitability) Regular overdue payments to creditors and regular overdue payments of debts by debtors Excessive use of short–term credit resources for long–term financing needs Low liquidity indicators, with a tendency to decrease Increase in proportion of borrowed capital to a dangerous limit within the common capital structure Shortage of own working capital Continuous increase of capital turnover period Excessive stocks of raw materials and finished products Wrong reinvestment and dividends policy Regular default of repayment of loans and payments of interests and dividends to investors, creditors and shareholders Worsening relations with credit institutions Applying new sources of financing on disadvantageous terms Exploitation of physically and morally outdated equipment in production process Unfavorable changes in the portfolio of orders Fall in market value of a company's shares Declining production potential |
| Unfavorable influence of the following indicators is not necessarily a foundation to consider the existing financial position to be critical, but it may as well deteriorate if appropriate steps are not taken in the future | Low degree of diversification of a business activity (excessive dependence of a business upon a certain project, sort of equipment, sort of assets, raw materials or sales market) Loss of the most important contractors Underestimation of the necessity to renew equipment and technology Forced idle time and breaches in the rhythmical pace of the technological production process Overestimated efficiency of new projects Implication in trials without predictable outcome for a business Loss of competent managerial staff Ineffective long–term agreements Shortage of investments High–level political risk for whole company or its branches or structural units |

Appearance of one or another criterion or a group of criteria does not provide a base for the management to make the ultimate decision. Economic analysts always have tried to foresee bankruptcy on the ground of the numerical coefficients or a generalized indicator. In the sixties of the 20th century, William Beaver made a first attempt to systemize coefficients reflecting probability for bankruptcies of enterprises. He identified the coefficients dynamics of which showed signs of bankruptcy. By analyzing the tendency of changes in financial indicators and applying the scale of critical values, the enterprise in question could be related to a certain group of risk.

Further development of adaptation of the financial indicators to prognostication of bankruptcy ended in what became a working–out of unified, generalized indicator. The most common is a pattern developed by E. I. Altman in 1968. Solvency index Z can be calculated by Multiple Discriminant Analysis (MDA) in the following way:

The pattern of five factors by Altman
$Z = 1, 2\, K_1 + 1, 4\, K_2 + 3, 3\, K_3 + 0, 6\, K_4 + 1, 0\, K_5$
where:
K_1 – own current assets / total assets;
K_2 – retained earnings / total assets;
K_3 – earnings before interests and taxes (EBIT) / total assets;
K_4 – share capital at market value / liabilities;
K_5 – net turnover / total assets.

Critical value – 2, 675.
The prognostication indicating probability of bankruptcy depends upon quantity of Z:
- under 1, 8 – extremely high;
- from 1, 8 to 2, 7 – high;
- from 2, 8 to 2, 9 – possible;
- more than 3, 0 – very low.

In order to work out the pattern Altman studied a large number of companies in US, taking into account 22 financial coefficients relating to the evaluation of eventual bankruptcy. In the course of the research five coefficients of the greatest importance in forecasting the possibility of bankruptcy were made separate. They were given a weight, with parameters evaluated on the ground of statistical data processing for chosen companies. It is possible to forecast bankruptcy with the precision of 95% using this pattern according to statistics. Besides bankruptcy can be prognosticated with precision of 95% a year before it occurs and 72% two years before it occurs that approves the effectiveness of using E.I. Altman pattern.

The pattern, however, does not take into consideration specifics of other countries, specifics of different industries, and the fact that its main target is the range of major public stock corporations quoting shares in stock market makes it difficult to apply the pattern in other circumstances. Thus a version of the pattern was developed containing indices based only upon data of financial statements.

Version of the pattern of Altman
$Z = 0, 72\, K_1 + 0, 85\, K_2 + 3, 1\, K_3 + 0, 42\, K_4 + 1, 0\, K_5$
Where:
K_1 = net working capital / total assets;
K_2 = net profit / total assets;

K$_3$ = EBIT / total assets;
K$_4$ = equity / liabilities (borrowed capital);
K$_5$ = net turnover / total assets.
Z < 1, 20 – high probability of insolvency;
1, 20 < Z < 2, 90 – uncertain position;
2, 90 < Z – insolvency is not prospective.

As concerns small businesses, a pattern of two factors is set up to evaluate the possibility of bankruptcy. Yet, the fewer factors are considered, the more inaccurate is a forecasting. This model has advantage of simplicity, as well as option of application, when amount of information about an enterprise is confined. But the error of prognostication, applying the two-factor pattern of Altman, is determined within the interval $\Delta Z = \pm 0, 65$.

The pattern of two factors by Altman

Z = -0, 3877 K$_1$– 1, 0736 + 0, 0579 K$_2$
Where:
K$_1$ = total liquidity;
K$_2$ = proportion of borrowed capital within total capital.

Businesses with Z = 0 have the probability of bankruptcy comparable to 50 %. When Z < 0, the probability of bankruptcy is less than 50 % and it decreases further depending on decrease of Z. When Z > 0, the probability of bankruptcy is more than 50 % and it increases depending on increase of Z.

Altman pattern could be recommended to be used in other countries, although results in accordance with financial parameters of American companies between 1946 and 1965 on the basis of data of financial statements hardly can be recommended to be used in other transit economy country.

To develop a pattern reflecting the real situation of the sector, it is essential to gather necessary financial data from financial statements of large number of companies. Thereby a new Z-pattern based on different financial coefficient and other pattern parameters was developed. Thus were founded the four-factor patterns of Taffler and Tisshaw, Lis and Springate.
Results from Taffler and Tisshaw pattern for British companies published in 1982. Initially 50 financial coefficients were chosen of which five key-parameters were eliminated using the MDA. Those parameters are: return on total assets calculated from retained earnings, financial leverage coefficient calculated as ratio between borrowed capital and long-term investments, working capital and equity capital coefficients, and resource turnover period.

E.I. Altman and R.Taffler pattern structure approves the difference in used financial coefficients even though structure of coefficient groups is similar. In comparison with Altman pattern, Taffler patter has several advantages because it is fully based on financial statement data when Altman pattern uses market value rate.

Following Pattern by Taffler and Tisshaw can be used for manufacturing companies that quote shares in Stock Exchange:

Pattern by Taffler and Tisshaw:

$Z = 0, 53 K_1 + 0, 13 K_2 + 0, 18 K_3 + 0, 15 K_4$
Where:
K_1 = gross profit / short–term liabilities;
K_2 = current assets / total liabilities;
K_3 = short–term liabilities / total assets;
K_4 = earnings / total assets.
$Z > 0, 3$ – normal prospects
$Z < 0, 2$ – possibility of bankruptcy.

Similar to Taffler and Tisshaw pattern was made by Lis and Springate.

Pattern by Lis:
$Z = 0, 063 K_1 + 0, 092 K_2 + 0057 K_3 + 0, 001 K_4$
Where:
K_1 = current assets / total assets;
K_2 = gross profit / total assets;
K_3 = retained earnings / total assets;
K_4 = equity / liabilities
$Z = 0, 037$ – critical value

In 1978, at the Simon Fraser University, L. V. Gordon Springate established the four–factor **Z–pattern of Springate**:

$Z = 1, 03 X_1 + 3, 07 X_2 + 0, 66 X_3 + 0, 4 X_4$
Where:
X_1 = share of current assets in total assets;
X_2 = proportion of EBIT to balance value;
X_3 = proportion of earnings before taxes to short–term debts;
X_4 = return of all assets (ROA).

When $Z < 0, 862$, a business is considered to be bankrupt. In the course of developing the pattern Springate analyzed 40 enterprises and reached 92, 5 % credibility, when he forecasted solvency for term of one year.
Proportion of EBIT to balance value is calculated by the following formula:

$X_2 = (EBT + PLI) / BV$
Where:
EBT = earnings before taxes;
PLI = payment of loan interests;
BV = balance value.

At the Riga Technical University in 1998 Z–pattern was developed for prognostications indicating the possibility of bankruptcy to be made accordingly to the circumstances of Latvia. Information on 23 Latvian companies was used. All 23 companies can be classified as different including successful companies and companies that announced insolvency in the period between 1994 and 1996. Companies cover various economic sector: wood-processing, electrical equipment, radio electronic, metal working, wood-pulp and paper industry, sewing, wholesale and retail.

As selection in based on companies from different economical sectors and financial situation we can assume that proportion of financial coefficients as a result from this analysis generally can be extrapolated to all Latvian companies.

Evaluating the precision of the results two major mistakes was observed. The first mistake M_1 occurs due to solvency prognosis when company is practically bankrupt. The second mistake M_2 arises when the pattern forecasts bankruptcy, but the company manages to maintain solvency.

In conclusion prognostication of probability of bankruptcy according to Latvian unadjusted pattern is 96%.

Analogy to original E.Alman pattern, probability of bankruptcy two years before it occurs can be prognosticated with precision of 70%. The precision of long term prognostication is impossible to calculate due to lack of statistical data (e.g. financial data from several years before bankruptcy).

Table 1 Precision of prognostication of Latvian unadjusted pattern.

Mistakes	**Precision**		**Mistake**	**Total**
	n_1	*%*	*%*	*n*
First mistake M_1	11	100	0	11
Second mistake M_2	11	92	8	12
Total	22	96	4	23
n_1 – number of companies that do not correspond to mistakes M_1 or M_2; *n – number of companies that correspond and do not correspond to mistakes M_1 or M_2.*				

Latvian pattern:
$Z = -2, 4 + 2, 5 K_1 + 3, 5 K_2 + 4, 4 K_3 + 0, 45 K_4 + 0, 7 K_5$
Where:
K_1 = net current assets / total assets;
K_2 = retained earnings / total assets;
K_3 = earnings before taxes / total assets;
K_4 = equity / total debts;
K_5 = net turnover / total assets.
$Z < 1, 80$ – extremely high possibility of bankruptcy;
$1, 81 < Z < 2, 7$ – bankruptcy is possible;
$Z > 3, 00$ – possibility of bankruptcy is not prospective or it is very low.

Slightly different approach in evaluating the eventual bankruptcy is offered by a Ginsburg. In this case the financial position of a business is estimated by a scale of points, calculated by results of indices from three coefficients.

The three–factor model of Ginsburg is used by banks to estimate the general financial condition of a business. Quantities of the coefficients applying for evaluation are divided in three classes (Table 1).

Table 2 Coefficients to work out the three–factor pattern of Ginsburg

Coefficients	1 class	2 class	3 class
Coefficient of absolute liquidity	> 1	1–0, 6	< 0, 6
Total coefficient of repayment of short-term liabilities	> 2	2–1, 5	< 1, 5
Coefficient of equity concentration	> 40 %	40–30 %	< 30 %

Each coefficient is given a rating of points:

- coefficient of absolute liquidity – 40;
- total coefficient of repayment of short-term liabilities – 35;
- coefficient of equity concentration – 25.
-

Sums of points are calculated by multiplying the number of respective class, to which refers calculated value of coefficient, with the rating given to the coefficient.

The ultimate evaluation of the financial condition is determined by referring sums expressed in points to the following groups (Table 2).

Table 3: Evaluation of the financial position, using the three–factor pattern of Ginsburg for estimation expressed in points

Number of group	Points	Evaluation of the financial position
1	100–150	Stable financial position
2	151–220	Unsubstantial deviations from norm
3	221–275	Heightened risk of bankruptcy, tension, but improvement is likely to be achieved
4	> 275	Poor financial position, high risk of bankruptcy

The coefficient of equity concentration itself is calculated by this formula:
Kpkk = equity / total assets x 100 %.

In the circumstances of transition economy the five–factor pattern of R. S. Saifulin and G. G. Kadikov has gained high appreciation because of its highly precise forecasting of the probable bankruptcy. Deficiency of the pattern is that it does not regard distinctions of industries where businesses operate.

The five–factor pattern of R. S. Saifulin and G. G. Kadikov has the following advantages:

- simplicity of the financial calculation;
- it is instrumental in classifying companies by degree of risk;
- it is appropriate for application in the circumstances of Latvia, thanks to the identical levels of normative indices that are used in the pattern;
- changes in ratings of evaluation make it possible to draw a conclusion about the efficiency of business activity or its inefficiency, as well as estimate the financial

standing; rise of rating indicates improvement in the financial standing of organization, but fall, on the other hand, suggests decline.

Method of evaluating the risk of bankruptcy is based upon the calculation of rating value by the five–model set up on the ground of the coefficients characterizing the financial stability, solvency of organization, efficiency of application of assets, profitability of basic activity and profitability of own investments.

Rating value R is calculated by such formula:

$$R = 2 \text{ Kpln} + 0, 1 \text{ Kisdz} + 0, 08 \text{ Kap} + 0, 45 \text{ Pr} + \text{Ppp}$$

Where:

Kpln – coefficient of own financial means; (?)
Kisdz – general coefficient for repayment of short–term liabilities
Kap – coefficient for turnover of assets
Pr – sales profitability
Pps – profitability of equity.

The financial standing of organization is considered to be satisfactory, when its universal rating value is 1 or higher – bankruptcy is not prospective. The financial standing of organization is considered to be unsatisfactory, when its rating value is less then 1 – risk of bankruptcy is real.

Financial managers and auditors have to decide, which tool is better to prognosticate the probability of bankruptcy. Previously discussed patterns are practiced most frequently, but there, of course, are much more. In the course of applying Z-patterns for evaluation of business, perhaps, it will turn out that while one pattern overestimates the risk of bankruptcy the other underestimates it. In that case there are alternative ways of using Z–pattern, such as:

1) working out a multi–factor pattern of your own by applying the MDA method;
2) putting into practice the existing available patterns and making generalized evaluation in the light of previous results.

The first way includes statistical processing of data bases in major Latvian companies. As concerns the second one, it must be said that it is obligatory to determine critical value Z in all Z–patterns. Deviations to one side or another will indicate the possibility of bankrupt or its absence, besides, the larger is the distance, the higher is the level of credibility. Thus it is possible – within any pattern – to create the scale indicating the possibility of bankruptcy, and in the classical pattern of Altman, for example, it looks like this:

area of high probability   **marginal**   **Area of low probability**
of bankruptcy   **value Z**   **of bankruptcy**

1,8   **2,675**   **2,9**
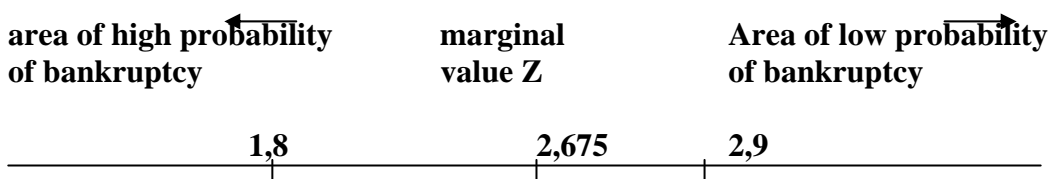
To every pattern of Z its own scale with particular parts a of this scale. The hardest is respective comparison of different scales in different models. Using statistical indicators and performing this task, it is possible to create universal instrument for prognostication of eventual bankruptcy. The drawback of it is number and complexity of calculations, using available Z models.

Building any kind of pattern it is necessary to calculate financial coefficients accurately and take into account several circumstances when interpreting:

1) value of some coefficients is set according to company's policy (e.g. capital assets, stock inventory methods);
2) financial coefficients describes the situation in a previous periods therefore it is difficult to forecast;
3) practically all rates are calculated on the bases of financial statements, not company's asset market value;
4) several rates provide concept only for current moment (e.g. liquidity rates) that leads to difficulties when evaluating existing situation.

The whole spectrum of developed models to evaluate possibility of bankruptcy leads to conclusion that in case of Latvia it is not appropriate to use just one single method or model. For more precise prognostication of eventual bankruptcy it is necessary to exploit the whole set of methods and on the base of their results to work out recommendations for management decision making. For smoothing of different results from different models, it is possible to use methods of average values, weighted averages or average quadratic deviation. In every case, the result of such approach is going to be more precise, if compared to any individual method or model.

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ENFORCEMENT OF SECURED TRANSACTIONS AND FINANCIAL DEVELOPMENT: EVIDENCE FROM TRANSITION ECONOMIES AND KOSOVO

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1. INTRODUCTION

The bulk of the theory and evidence points to the direction that financial development facilitates economic growth. If so, the important question is what shapes the functioning of the financial system and the level of financial development? This paper aims at responding to this question in the context of transition economies (TEs). It reviews the literature, both theoretical and empirical, in the light of the importance of the legal framework in credit markets and provides empirical evidence that 'law enforcement' matters for financial development in TEs.

Because of information asymmetries (IA) and transaction costs (TC), credit market imperfections lead to credit rationing (Stiglitz and Weiss, 1981). To correct for this, collateral plays an important role. However, institutions such as law and judiciary that support the creditors' right to repossess the collateral and ensure compliance with contractual agreements, will determine the efficiency of using collateral and other restrictive covenants (LaPorta *et al*, 1997). Hence, by designing and enforcing the creditor rights, legal institutions influence the degree and terms on which parties engage in financial transactions. Better protection of creditor rights will improve incentives of creditors to lend more, on better terms, and may correct the common problems in the credit market such as moral hazard and adverse selection.

Among TEs, those in SEE and CIS, have lagged behind the advanced reformers of CEE in building institutions supportive for the market economy. In terms of the credit market, although reforms were undertaken to strengthen the creditor rights, the enforcement of these rules remains a challenge. Efforts of policymakers should be addressed in this direction ensuring that – to the extent that law on books are the appropriate ones – they work in practice.

The paper attempts to test the importance of creditors' rights in two ways. Firstly, we provide evidence from a cross-section of 25 TEs that the enforcement of creditor rights, rather than the law itself, has an impact on financial development. Unlike other studies, we employ a broad set of measures such as depth of the credit market, credit growth, terms of lending, firm financing constraints, etc., that proxy for financial development. We find that better law enforcement is positively related with almost all the measures of financial development.

Secondly, we investigate the importance of the legal framework for financial development in Kosovo. In relation to the functioning of the financial system and the protection of creditors' rights, the basic framework regarding the law on books is already in place. However, there is no conclusive evidence on the assessment of how these laws work in practice. Employing and extending the EBRD (2003) methodology on enforcement of collaterals law we show that Kosovo compares well with other TEs and countries in the region regarding the enforcement of creditor rights.

2. LAW AND FINANCE: THEORY AND EVIDENCE

2.1. Background theories

The idea that the financial development spurs economic growth has a long heritage and the bulk of theoretical and empirical work points to the direction that finance matters for economic growth.[2] However, as Zingales (2003) points out, it is of little use to know that the relation between finance and growth exists if policymakers do not know how to promote financial development. A well-established strand of literature supports the view that institutions matter, and specifically the protection of creditor rights is one of the key aspects of credit market development. The law and finance literature argues that no credit will be extended unless the creditors' rights to repossess the collateral are not ensured. Since imperfections stemming from IA and TC are present in the credit market, in a limited liability framework, Jaffee and Russell (1976) and Stiglitz and Weiss (1981) argue that these may lead to adverse selection and moral hazard problems and result in credit rationing. Appropriate functioning of institutions may correct these market failures and facilitate financial development.

When full liability assumption enters the picture, e.g., loans are fully collateralized to correct for borrower opportunistic behavior, the collateral is used as remedy of the moral hazard and adverse selection problem. Of course, under the assumption that if borrower defaults the collateral will be easily possessed by the lender. Bester (1985), Chan and Kanatas (1985), Besanko and Thakor (1987) and Chan and Thakor (1987) have developed adverse selection models with separating equilibria and no credit rationing where the collateral serves as a sorting device. This is because less risky borrowers, in order to distinguish themselves from high-risk type, will signal

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[2] See King and Levine (1993) and Levine (1997, 2003) for review of the literature on finance-growth nexus.

truthfully by choosing contracts with higher collateral requirements (since their probability of default is low) and low interest rates (since by assumption returns to the low-risk project are lower). In addition, the collateral may also serve as an incentive device in credit market, i.e., by making default costly, borrowers may increase their effort level in the project (Ghosh *et al.*, 2001).

One problem with these models is that they assume that borrowers are fully liable and in case of default, the transfer of collateral will be costless. However, if we move to an environment where contract enforcement is poor, the full liability assumption, that is, debts are fully collateralized and costless transfer of collateral state, would not hold. In environments with weak legal framework and poor functioning of courts, making borrowers fully liable for their loans by means of the collateral is not an easy task. If lenders are aware that laws are not protective and the chance of taking over collateral is at stake, they are likely to limit credit extension.

2.2. The role of institutions

Most of neo-classical economics abstracts from considering market frictions such as TC and IA. In addition, it is assumed that the institutions, i.e., laws and courts, are in place to enforce contracts and protect the rights of parties in the transaction (Williamson, 2000). In contrast, the New Institutional Economics (NIE) has shown deviations from the neoclassical ideal. Information is incomplete, asymmetrically distributed and costly to acquire. The NIE analysis at a micro level takes transactions as the basic unit of study and focuses on transaction costs using contractual reasoning (Murrell, 2005).The cost of transacting is positive which consists of the cost of acquiring information needed to measure attributes of parties in the transaction, the cost of protecting rights and the cost enforcing contracts (North, 1990).

The financial development literature has used the tools of the NIE to show the relevance of institutions in the functioning of the financial system. The characteristics of the legal and regulatory system influence the degree to which creditors can acquire information about borrowers, make contract agreements, and enforce those contracts. One of the remedies to imperfect markets is well functioning institutions, be it proactive regulatory institutions or reactive ones such as the courts.

Information acquisition costs are the major part of TC. In the lender-borrower relationship when the characteristics of the borrower are not known, IA are present and the costliness of acquiring information depends on the existence and the quality of institutions e.g., systems of notice such as credit and pledge registers, accounting standards, etc. All these, with the aim of reducing IA, ascertain the quality of the borrower and rely on contracts which will not be violated. Information acquisition should be validated with appropriate documentation on information. For example, auditing financial statements that firms disclose, the proof of ownership rights of assets to be pledged, etc. Although this process is costly itself, the relative differences in how institutions function will determine the TC of engaging in the contract. The alternative, i.e., missing institutions or improper functioning of institutions, will leave the lender in information disadvantage and in a severe IA framework the credit market may collapse.

After the contract the lender engages in costly monitoring in assessing whether the terms are being respected. When the deviant behaviour is observed in the monitoring

process, it should be verified in the court of law. Courts cannot verify whether the violation has occurred in absence of institutional settings e.g., accounting standards. Or courts may lack efficient procedures to handle the case or they may be corrupt, all adding to the TC. If enforcement takes place it involves TC e.g., legal representation, information acquisition costs, etc. The relative differences in how well the process is conducted would determine the costs and incentives in engaging in the credit relationship. Complex and time consuming procedures, unpredictable judgements, and corruption would reduce the willingness of a lender to enter into the credit relationship in the first place. As a result, legal institutions will fundamentally influence the ability and willingness of creditors to perform their functions; that is, to identify the most productive firms, screen and monitor, mobilize savings, facilitating financial sector development and presumably economic growth.

Only recently models of the lender-borrower relationship have been developed to introduce an additional agent, the institutions. In a model with incomplete contracts and multiple creditors, where firms can promise up to the full amount of available assets to multiple creditors, Berglof, *et al.* (2000) argue that this would increase a firm's debt capacity while increasing its incentives to default strategically. In a similar way, in a model of corporate finance with collateralized debt contract and a moral hazard argument of credit rationing, Fabbri (2001) argues that the government may improve access to finance by investing in the legal system.

In a model of opportunistic debtors and imperfect courts, Jappelli, *et al.* (2005) argue that the degree of law enforcement will affect the borrower's future willingness to pay (degree of moral hazard) which in turn would determine the *ex ante* willingness of creditors to lend and terms of lending. Efficient law enforcement makes it costly for borrowers to default, hence incentives to perform are enhanced, corrects *ex ante* lenders' incentives to lend since recovery in the case of default is full, and as a result degree of credit rationing would depend on collateral availability. The higher the expected fraction of recovery – that is the more efficient are courts – the lower collateral-to-loan ratio will be required from the borrowers. This will increase the pool of potential borrowers, which previously could not qualify even if they had projects with positive net present value. By assuming efficient and competitive financial markets, terms of loans will improve and credit rationing will decrease.

In a recently flourishing law and finance literature, the roots of the role of creditor rights in financial development should be traced back to the seminal work of LaPorta, Lopez-de-Silanes, Shleifer and Vishny. In LaPorta, *et al.* (1997, 1998), it is the protection of shareholder and creditors' rights that determines the degree of development of capital markets across countries. They relate this to the legal heritage of different countries which differ in the degree of protection of creditor and shareholder rights.[3] LaPorta *et al.* found strong evidence for the impact of the legal

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[3] Countries that adopted Anglo-Saxon law tradition (common law countries), on average, outperform other legal families (civil law countries) in terms of the protection of creditor and shareholder rights and have more developed financial markets. Various theories have evolved in law and finance literature. For example, Beck, *et al.* (2003a) emphasize the role of flexibility in the lawmaking in influencing financial development. Beck, *et al.* (2003b) argue that in addition to the legal origin, type of colonisation ('settler' or 'extractive') shaped the quality of institutions for the protection of property rights and financial development. Some studies go on to show that the religion explains the cross-country differences in financial development (see for example Stulz and Williamson, 2003).

environment on the size of capital markets across countries. Using a sample of 49 countries around the world, they found that countries with poorer protection of investor rights, measured by the character of legal rules and the quality of law enforcement, have smaller and narrower capital markets (equity and debt).

In the transition context, Slavova (1999) and Pistor, *et al.* (2000) provide evidence that legal aspects matter for financial development. Slavova (1999) used a cross-country study of 21 TEs in 1998 and found that only legal enforcement matters for banks' credit to the private sector, and that the law on books itself does not appear to affect the banking sector intermediation to the real economy. As she points out, banking law enforcement is found insignificant in a specification controlling for growth and inflation, whereas aggregate financial law enforcement is significant only at the ten percent level. Similarly, Pistor, *et al.* (2000) find stronger evidence for the impact of law enforcement measures on the development of capital markets in TEs than law on books. However, their results too are weakened when macroeconomic stability measures are introduced in the model.

Recently Djankov, *et al.* (2005) extend LaPorta *et al.*'s cross-section analysis in 129 countries around the world. Apart from the legal issues regarding the creditor rights – 'power of creditor theories' – they assess 'information theories' when lenders know more about their borrowers, their credit history, etc. They found that higher creditor rights protection through the legal system and the presence of information sharing institutions are related to deeper debt markets.

2.3. Critical assessment of law enforcement measures

Different studies employ different measures when it comes to enforcement of creditor rights. LaPorta, *et al.*, (1997) measured the degree of law enforcement in different countries using several ratings. First, efficiency of the judicial system (produced by Business International Corporation) was a survey-based scoring where foreign firms were asked to evaluate the efficiency and integrity of the legal environment as how it affects firms. Second, the authors used 'rule of law' index which is an assessment of the law and order tradition in the country produced by International Country Risk Guide (ICRG). All these measures are a mixture of indicators such as corruption, risk of expropriation and contract repudiation by the government, etc. Although these measures may be good proxies for law enforcement in the particular country, they reflect more general institutional setting. Being multidimensional, none of these deals explicitly with law enforcement in the lender-borrower relationship. For instance, how much and how fast the creditor may expect that he can recover his debt from the defaulting borrower.[4]

Slavova (1999) and Pistor, *et al.* (2000) use the EBRD measure of extensiveness and effectiveness of financial institutions laws. These capture both banking and stock market reform, i.e., compliance with Basel accords on capital adequacy and stock market development in line with international standards, then dimensions such as the power and authority of supervisors, money laundering issues, etc. Since financial institutions effectiveness and extensiveness capture regulator-bank relationship, stock market regulations and being too general, it may be said that this may not capture

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[4] As we will see later in this paper, the EBRD does this for TEs.

directly laws governing lender-borrower relationship. As such, it may not have any direct impact on a bank's lending.[5]

Most recently, Djankov, *et al*. (2005) measure enforcement of creditor rights by number of days it takes to enforce a simple debt contract. This is a World Bank Doing Business methodology through case study survey. Law firms were asked for a complete write-up of the legal procedures necessary to dispute these cases in court. Based on this, the measure is constructed by specifying the time it takes courts to handle two types of cases: the eviction of a residential tenant for non-payment of rent and the collection of a check returned for non-payment. While the former does not pick the commercial loans, the latter captures firm-trade creditor relationship worth 200% of country *per capita* GDP. Then the amount of debt may not be appropriate – in the case of Kosovo this would be 2000€, a typical consumer loan which may not be appropriate transaction for capturing enforcement of creditor rights. Involving courts for resolving small transaction disputes may be more costly than the value of transaction itself. Interestingly, as indicated in their scores, it takes around 1000 days to enforce such contracts for example in Slovenia and Poland - advanced reform TEs.[6] Whereas in Albania, BiH, Romania (less advanced reform TEs) it takes around 300 days and Bulgaria and Croatia 400 days. The average for CIS in their score was 331 days whereas for CEE 442 days. This gives a completely different picture from EBRD (2003) scores on the enforcement of secured transactions discussed later in this paper.

3. LAW IN BOOKS AND LAW ENFORCEMENT IN TRANSITION

When the transition process started, some countries followed the 'big-bang' model of transition, some opted for gradualist transition and those in the middle adopted a mixed model. Countries ended up with different degrees of economic recovery, growth, and institutional performance. Advocates of the 'big-bang' approach emphasized that with price liberalization, privatization, and the removal of capital controls, market forces will ensure efficiency and that the legal and institutional basis for a market economy could be established quickly (Sachs, 1991). However, in the first decade of transition, most TEs did not recover from the transition recession and did not achieve the pre-transition GDP level and growth. Price liberalization, liberalization of capital accounts, privatization, etc., were easier to adapt. Indeed, broadly all TEs have undertaken these steps. But when it comes to institutions, we have learned that it takes time to build them.

There were many reasons behind the underdevelopment of institutions, and particularly the legal reform. In some cases there was no political will while in others policymakers had other priorities. If dominant political groups want economic prosperity and are willing to risk the loss of political control over the economy that

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[5] Jappelli, *et al*. (2005) measure law enforcement in a credit market with the length of ordinary civil trials and number of civil suits pending per thousand inhabitants. In this study too, the measure may not capture accurately lender-borrower dispute resolution since civil suits may involve various enforcement actions unrelated with the credit market.

[6] Weder (2001) measuring overall institutional quality in TEs finds out that Slovenia, Poland and Hungary outperform all TEs in institutional quality and are comparable with industrial countries.

modern conditions dictate, they will also want legal reform (Posner, 1998). For the institutional reform to take place there should be an interest group, e.g., banks, that facilitates this and pushes for reform. In early transition years banks were still not privatized and there was no political will among the banks to support rules that enhance their rights in, for instance, seizing collateral. The lending was on a soft basis and ties between state-owned banks and state-owned enterprises were still present. On the other hand, soft lending was present in the government-bank relationship. Banks were aware that in a case of distress, government will be there to provide rescue and aggressive debt collection was not necessary for their survival. As a result, the incentives of banks to strengthen their position toward the borrowers were weakened. Another explanation is that in most of the cases there were no human capital skills to deal with the new situation that the market economy had created. The courts lacked expertise and resources to do their job, while most firms were uninformed about the new laws. Balcerowicz, *et al.* (2003) have pointed out that TEs at the start of transition faced a shortage of court personnel, competent administrators and judges had insufficient knowledge of economic and financial issues. Administrative capacity and procedures were not developed at a fast enough pace to cope with rapid growth of cases resulting from the operation of the market system. However, after a decade of transition institutional reforms have taken place. Weder (2001) in measuring overall institutional quality around the world suggests that TEs as a group are no longer distinguishable from other countries, but there are large differences in institutional performance within the group of TEs. Clearly, advanced reformers in TEs now members of EU have managed to transform their institutions. The rest, such as SEE and CIS have lagged behind.

Pistor, *et al.* (2000), applying LaPorta, *et al.* (1997) methodology, point out that one of the characteristics of the TEs is that they adopted the most comprehensive laws of the western world but fell short in the implementations of these laws. The creditor rights index (ranging from 0 to 4) appears to be higher than the world average and higher than the average of all legal families (Table 1, panel a). Even the worst performers in TEs (e.g. SEE countries) scored better than the world average and average of most legal families in 1998. Similar story can be told with the World Bank methodology that extend LaPorta *et al*'s methodology for taking into account, apart from bankruptcy laws, pledge laws as well in the score ranging from 0 to 10 (Table 1, panel b). This too reflects that regarding the law on books, TEs are comparable among themselves and high income countries.

Table 1. Creditor rights in transition

	Average score for creditor rights (LaPorta et al., 1997 methodology)		Average score for creditor rights (World Bank, 2005 methodology)
	[a]		[b]
	1992	1998	2005
CEE	2.55	3.55	6
SEE	0	3.00	6
CIS	1.05	3.05	6
TEs average	1.40	3.23	6
		1996	
Common law		3.11	.
French civil law		1.58	.
German Civil law		2.33	.
Scandinavian civil law		2.00	.
World average (49 countries)		2.30	.
High income countries		.	6

Source: Pistor (2000) and World Bank (2005)

Law on books in TEs appears to have improved towards the highest level of legal rules as a result of foreign technical assistance and, for advanced reformers, harmonization requirements for joining EU.[7] The CEE and CIS countries rebuilt their systems drawing heavily on the EU and US models but the evidence from these countries suggests that the enforcement of transplanted law is often problematic (Berkowitz *et al.*, 2001). It is easy to write/copy the most comprehensive laws using the laws of developed countries as a model, but whether these are suitable and enforceable is another question. Related to this, Lopez-de-Silanes (2002) point out that the divide between developed and developing economies is more pronounced in the level of enforcement than on the laws themselves. They interpret this as either the rules are not the 'right ones' because they are not designed for judicial systems of low efficiency or low judicial efficiency renders 'the right rule' unenforceable. Many scholars support the view that a speedier upgrading of law enforcement institutions is the most important for the transition success. Hence, the EBRD recognized the need for evaluating how these laws work in practice. This led the EBRD to conduct the New Legal Indicator Survey (NLIS) with its main focus on secured transactions using a case study approach aimed at helping credit providers to assess potential advantages of taking security, highlighting strengths and weaknesses of legal framework for collateral, etc. By trying to capture commercial reality, the key concern of the survey was how effectively the process of enforcement of movable collaterals works in practice.

For the law enforcement survey a case study methodology was adopted and an imaginary case was presented to commercial lawyers in TEs (see Appendix 1 for the questionnaire). They were asked to evaluate how the bank can enforce their rights in a case of borrower default. The evaluation had three dimensions: how much, how fast, and how simply the creditor can recover the loan (amount, time and simplicity). Each of these three criteria was assessed by lawyers and EBRD legal experts in each transition country. Using a scoring system of 0 (worst) to 10 (best), a maximum score (30) can be achieved, for example, if the loan is recovered in full amount, within one month, and with clear and simple enforcement procedures.

In addition to the case study, 12 additional questions ('qualifiers') concerning the process of enforcement were asked to highlight the influence of third parties in this process. For example, to what extent the enforcement would be affected if debtor would file for bankruptcy, or how the enforcement would be affected if immovables are pledged as collateral.[8]

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[7] As Pomfret (2002) points out, while the eastern Europeans wanted money to buy new equipment to restructure their factories, the western donors offered advice on how to construct legal systems and economic institutions.

[8] For the definition of process and scope factors see EBRD Transition Report 2003, p. 40. The scoring for process and scope factors (being in scale 1 to 3) is 1 when minor, 2 significant and 3 major problem is encountered with particular factor. As opposed to the amount, time and simplicity score, for the process and scope factors higher score indicates greater level of complexity and hence worst performance.

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Table 2a. NLIS 2003 in TEs		
	Amount, time and simplicity	Process and scope
CEE	24.25	1.68
SEE	17.86	1.95
CIS	13.45	2.18
TE avg.	18.14	1.94

Source: EBRD (2003)

Table 2b. Tests of means (t-statistics)		
	Amount, time and simplicity	Process and scope
SEE vs CEE	-2.17*	1.57
CIS vs SEE	-0.99	1.84
CIS vs CEE	-3.87**	3.22**

Table 2a indicates that there is divergence in the enforcement of laws governing creditor rights in TEs. Not surprisingly, advanced reformers (CEE) have better scores, followed by the SEE and CIS in both, amount, time and simplicity as well as process and scope factors. Test of means reveals that regarding the amount, time and simplicity scores, the CEE countries significantly outperform both SEE and CIS, whereas the difference between the SEE and CIS is not significant (Table 2b). In the process and scope factors only the CIS has significantly worse scoring than CEE.[9]

4. LAW ENFORCEMENT IN CREDIT MARKETS IN TEs: AN EMPIRICAL ASSESSMENT

In this section we empirically assess the role of law enforcement in the credit market in a cross-section of 25 TEs by a thorough investigation of the alternative specifications of financial development. The study uses similar approach to Slavova (1999) and Pistor, *et al.* (2000) in terms of cross-sectional analysis employed and in the context of investigation i.e., TEs. But our analysis differs from existing literature on transition in many respects. First, the period under review in our analysis is after 1998 being more up-to-date and the adjustments in general environment already took place where in most of the TEs there was macroeconomic stability. As noted, from a macroeconomic stability point of view the period before 1998 may have been more volatile in TEs. This may have driven Slavova's and Pistor *et al.*'s results that found a weakened significance of the legal aspect when macroeconomic stability measures are introduced (or, as discussed, problems with their measure of law enforcement).

Second, we extend previous analysis in a broader set of dependent variables that consist of twelve different specifications employing different measures of financial development. There is no single measure that can cover entirely the degree of financial development although most of the literature employs volume of lending to private sector to GDP. This measure covers both lending to corporate and household sector. Since basis for lending are different for households and repayment rates in general are higher than for corporate loans, household loans may be less prone to legal disputes. As such, law enforcement may not have decisive impact on household lending. It may be the case that law enforcement has a different effect in two measures by having a higher impact in lending to corporate sector.

It has been shown that credit to the private sector in TEs remains well below what would be expected based on estimates for a wider range of developing and developed countries (EBRD, 2005). This is to say that TEs have not reached long-term equilibrium and that the credit growth is structurally driven from the functioning of

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[9] In addition to the collateral laws enforcement, the EBRD in 2004 applied similar case study methodology for assessing enforcement of creditor and debtor initiated bankruptcy cases in terms of speed, efficiency and predictability.

the legal system and macroeconomic stability. Hence, countries with better law enforcement mechanisms in place will catch-up quicker. Putting simply, in countries where law is enforced properly would have credit markets that grow faster. In addition, law enforcement may have also an impact in another important aspect of financial development, which is the quality of bank loan portfolios i.e., non-performing loans (NPL). If better enforcement makes the default more costly *ex ante*, then borrowers may increase the effort in the project since they have more to loose in the case of default which would lead to lower NPL. On the other hand, the banks' portfolios may also worsen since the incentives of banks to screen are diminished when creditor rights are strongly enforced (Manove *et al.*, 2001), or if creditors are strongly protected in the case of borrower default, they will have no incentive to allow their debtors to restructure and possible premature liquidation decreases incentives to undertake risks (Padilla and Requejo, 2000).

Terms of lending are another crucial dimension of financial development. The low quality of legal institutions in dispute resolution may involve high TC due to lengthy and complicated procedures. These costs are borne by the lenders since, provided low enforcement of collateral laws, recovery value may be low. Lenders may compensate this by charging *ex ante* higher interest rates to cover these costs. Given that unpredictability of the performance of legal institutions increases uncertainty, it shortens the horizon of transacting i.e., debt contracts will be of shorter maturities. Hence, we attempt to cover these dimensions of financial development as well.

Exploring the financial development from a firm perspective is another important dimension. Cross-country firm level studies (Demirguc-Kunt and Maximovic, 1998; Fan *et al.*, 2004; Hall and Jørgensen, 2005) found a positive impact of the legal aspects on the firm leverage and debt maturity. If availability of credit is increased and terms of lending have improved, firms may face less financing constraints. Whether law variables influence firms' perceptions of financing constraints directly, firm leverage and the proportion of investment that firms finance through bank loans, would cover additional dimensions of financial development and we will try to capture in our empirical framework. If creditor rights are enforced and banks are more willing to lend, firms may face less financing obstacles, are more levered and finance the larger proportion of their investments through bank loans.

Finally, we extend the previous literature by employing a measure of the law enforcement which is specifically related to the bank-borrower relationship (enforcement of secured transactions and bankruptcy laws) that directly influences creditor expectations and their willingness to lend. As mentioned earlier, the new EBRD law enforcement measures are based on a better methodology through case study which is likely to approximate more closely the reality in practice and capture bank-borrower relationship directly. Hence, NILS 2003 (enforcement of charged assets survey) and NLIS 2004 (enforcement of bankruptcy laws) may be a better measure in this respect. In addition, apart from usual macroeconomic controls that are employed in this framework (e.g., inflation, deficit, etc.), Djankov, *et al.*, (2005) emphasize the role of credit registers in the credit market. By revealing some of the characteristics of borrowers through the credit registry, lenders reduce some of the cost of screening and they may engage in screening other characteristics of the borrower. This improves information availability, reduces risk and cost of external finance. However, unlike Djankov *et al.*, (2005) assessing the presence/absence of

credit registries, we control for the quality of registers as having an impact on the credit market development.

4.1. The model and the data

The standard model, first developed by LaPorta, *et al.* (1997) and subsequently extended by, among others, Slavova (1999) and Pistor, *et al.* (2000) for TEs, hypothesizes that the law influences financial development. The general model is as follows:

$$Y_i = \alpha + \sum \beta * LAW_i + \sum \gamma * CONTROLS_i + \varepsilon_i$$

The dependent variable is the financial sector development, usually measured by the ratio of volume of lending to private sector to GDP. In the first set of regressions (section 4.2.1), we ask whether law on books and better enforcement has an impact on the depth of financial markets measured by banks' credit to the private sector (PRIV_CRED), banks' credit to the corporate sector (CRED_FIRMS), banks' credit to the household sector (CRED_HOUSE) and credit growth (CRED_GROW). In addition, we ask whether legal indicators have any impact on the quality of the banking sector loans (NPL) - for the definition of variables see Appendix 2.

We further ask whether legal rights of creditors and their enforcement influence the terms on which credit is provided across TEs. In the second set of regressions exploring terms of lending (section 4.2.2) we regress the nominal and real interest rate (INTEREST and REAL_INT) on loans charged by the banking sector and interest rate spread (SPREAD). In this set of regressions we introduce also average debt maturity in firms in particular country (DEBTMAT). If financial markets are deeper and provide better terms to borrowers they should face less financing constraints. In third set of regressions (section 4.2.3) we explore firm financing constraints (FINOBST), leverage (LEVERAGE) and investments financed through banks (BANKFIN).

The explanatory variables include the set of variables that proxy for the quality of legal institutions and control variables. The law enforcement variable in our models (ENFORCE_PLEDGE) captures the enforcement of secured transactions laws in TEs. Similarly, the enforcement of bankruptcy laws (ENFORCE_BANKPT) is the EBRD measure of the enforcement of bankruptcy cases in TEs. Whereas, the law on books variable that proxies for the strength of creditor rights (LAW_BOOK) measures the degree to which collateral and bankruptcy laws (as they are written) facilitate lending. The Credit Information Index (CREDIT_INFO) measures rules affecting the scope, access and quality of credit information through private and/or public credit registers.

Macroeconomic stability is a standard control variable measured by inflation (INFLATION) and the government deficit (DEFICIT). In a high inflationary environment, the banking sector activity may be hampered due to the uncertainty about the rates of return on financial capital since debt contracts are usually nominal in nature. It also may influence the pricing behaviour i.e., lenders may charge higher interest rates to compensate for risk and the length of transaction. The crowding out hypothesis argues that high budget deficits may have dampening effects on the availability of credit to the private sector. Banks in TEs maintained (and still do maintain) a significant proportion of their assets in high yielding government bonds,

thus crowding out credit availability to private sector. We also control for GDP growth (GDPGROW), indicating that banks may anticipate positive developments in the real sector and respond by deepening the financial sector and extending credit to the real sector (Wachtel, 2001). This may pick up loan demand as well since in a growing economy there will be additional demand for credit. Although demand for loans may be increased in a declining economy where firms face a profit squeeze and decline in liquidity.

4.2. Regression results

4.2.1. Law enforcement, credit volume, growth, and quality

Our estimates indicate that law enforcement, specifically the new EBRD measure of enforcement of charged assets (ENFORCE_PLEDGE), has a positive effect on the volume of bank credit to the private sector (the usual proxy for financial development) which is statistically significant at the one percent level when macroeconomic stability and other controls are taken into account (Appendix 3, specification [1]). The estimated impact is also economically significant, as an increase in ENFORCE_PLEDGE indicator by one would lead to an estimated one percentage point increase in PRIV_CRED, on average. The ENFORCE_BANKPT does not have a statistically significant impact on private credit in our estimates, although it does enter with positive sign. This might suggest that bankruptcy law is less used in credit transactions and, as such, may not have decisive impact on the lending relationships.[10]

The law on books (LAW_BOOK) has no statistically significant impact on private credit. In transition context, the enforcement of laws may be of paramount importance rather than law itself, since most TEs have reformed their legal frameworks but their enforcement remained a challenge. Whereas from our macroeconomic controls only inflation is negative and has statistically significant effect at five percent level. Higher inflation is associated with a narrower credit market and this may suggest that macroeconomic instability matters and may have detrimental effect on the financial sector development. The CREDIT_INFO although with positive sign, has no statistically significant impact on private credit.

In the next specification [2] that captures bank credit to enterprises (CRED_FIRMS), ENFORCE_PLEDGE has positive effect which is significant statistically and economically. Other variables enter insignificantly in the regression and some with unexpected sign e.g. LAW_BOOK and CREDIT_INFO. In third specification that captures bank credit to households only (CRED_HOUSE), ENFORCE_PLEDGE is not significant while CRED_INFO is statistically significant at five percent level. This may support previous assertion that basis of lending is different for households which are less prone to legal disputes, hence banks rely less on law enforcement in this type of lending, while credit information gains importance.

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[10] Claessens and Klapper (2002) find that TEs have lower use of bankruptcy laws since these are new laws and lenders and borrowers had no experience with them. They point out that firms in bank-based systems (as it is the case with TEs) tend to have close relationships with their banks and have less disbursed creditors, therefore are less inclined to use costly bankruptcy process. In addition, the authors point out that the larger the share of small firms in the economy the smaller the number of bankruptcies since small firms are less likely to incur the cost of formal bankruptcy procedures.

In specification [4] we regresses growth of banks' credit to private sector (CREDGROW). The law enforcement measure (ENFORCE_PLEDGE) has positive sign and is significantly different from zero at five percent level. Apart from law enforcement ensuring deeper credit markets, it also positively contributes to the credit market growth. Other control variables enter insignificantly in the regression, apart from inflation which is negative and statistically significant at ten percent level, suggesting that in the inflationary environments when uncertainty increases, the credit market will develop slower.

Finally, we regress the quality of the banking sector loan portfolio (NPL) on the same set of explanatory variables discussed so far [5]. ENFORCE_PLEDGE is negative i.e., the higher the enforcement of creditor rights the lower the volume of bad loans. However, ENFORCE_PLEDGE enters insignificantly in the regression. Theoretically, strict enforcement of creditor rights may have positive effect on NPL since it may reduce incentives of banks to screen. On the other hand, it may have negative effect since it makes the default costly and incentives to perform are improved. Our results do not provide a convincing evidence for neither of these theories, although the negative sign of ENFORCE_PLEDGE may slightly favour the latter. GDPGROW is negative and significant at five percent level (the only significant variable in this model) suggesting that in a declining (prospering) economy the bad loans increase (decrease).

4.2.2. Law enforcement and terms of lending

In assessing the impact of law enforcement in terms of lending we introduce lending rates as the dependent variable (INTEREST). In specification [6] we find evidence that law enforcement has a negative and statistically significant effect on lending rates. This suggests that borrowers may have access to cheaper funds where the creditor rights are more protected. Apart from the availability of credit, law enforcement determines costs on which the credit is available. The control variables, namely inflation, as expected, enters with positive sign and is significant at the one percent level suggesting that higher inflation would lead to higher interest rates in a country, since banks compensate for the risk premium that the inflationary environment creates and/or compensate for the falling value of money. CREDIT_INFO too is a negative and statistically significant at one percent level suggesting that the better the creditors are informed *ex ante* on the borrower characteristics (i.e. the better the quality of credit registers) the better terms they are willing to provide. Other control variables enter insignificantly in the regression. In specification [7] we regress real lending rates (REAL_INT). ENFORCE_PLEDGE again is negative and significant at five percent level while CRED_INFO and INFLATION enter insignificantly in the regression.

In specification [8] we regress the interest rate spread (SPREAD). The results reinforce the previous assertion that the law enforcement has an impact on the financial market development. CREDIT_INFO and INFLATION enter with expected signs, although inflation is not statistically significant. GDPGROW in this specification is negative and significant at five percent level, suggesting that higher growth leads to lower intermediation spreads. Again, ENFORCE_BANKPT and LAW_BOOK are not significantly different from zero.

In specification [9] ENFORCE_PLEDGE is not significant at conventional levels although enters with positive sign (a positive sign indicating a positive association between better law enforcement and access to longer term credit). However, when it comes to a longer period of the transactions 'information hypothesis' appears to prevail. More specifically, for longer term loans lenders may improve their screening or may be based on established relationships with their clients and rely less on collateral. This may be suggested since CREDIT_INFO enters the specification with positive sign and is significant at five percent level.[11] In this model, inflation has a negative sign and is significantly different from zero at five percent level, suggesting that in the inflationary environment the horizon of transacting are shortened, and lenders lend in shorter maturities.

4.2.3. Law enforcement and firm financing

In assessing the importance of law enforcement on firm financing, we use as the dependent variable the financing obstacles reported by firms in 25 TEs (specification [10]). Results are as expected. The ENFORCE_PLEDGE variable enters significantly at the one percent level and with negative sign. Our estimates suggest that in countries with better enforcement of creditor rights, firms are likely to report less financing constraints. Better enforcement of creditor rights may improve the availability of credit and the terms of credit, as a result, firms will face less financing constraints. All other variables are not statistically significant.

ENFORCE_PLEDGE variable enters with positive sign and is statistically significant at five percent level in specification [11] that regresses average firm leverage in countries in transition. This suggests that better enforcement of law leads to higher firm leverage, on average. Other explanatory variables are statistically insignificant except DEFICIT which is positive and significant at ten percent level. Given the presence of state owned enterprises in the BEEPS data, it may reflect the government subsidies to those enterprises in TEs. When regressing BANKFIN (last specification), ENFORCE_PLEDGE enters in line with expectations with positive sign and significantly at ten percent level. This may suggest that in countries with better enforcement of creditor rights, firms finance a larger proportion of their investment through banking sector funds as opposed to other funds.

Overall, our findings provide ample evidence that law enforcement, rather that law on books, has an influence on the development of the credit markets in TEs, after controlling for macroeconomic and other factors. Better enforcement ensures deeper credit markets that grow faster, provide finance with better terms (i.e., cheaper and in longer maturities), and ease firms' financing constraints. In addition, we provide evidence that macroeconomic factors such as inflation and systems of notice that reduce IA in the credit market i.e., the quality of credit registers, matter. These are especially important in the longer term transactions in the credit market and the pricing behaviour of the lenders. However, the law enforcement shows the most consistent results in our models compared to macroeconomic and other variables in determining the performance of the credit market.

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[11] When regressing presence/absence of credit registries (CREDIT_INFO dummy, not reported here) as in Djankov, *et al*. (2005), the variable is not statistically significant. So, it is the quality rather than the presence of credit registries that matters in longer transactions.

4.3. Do different law enforcement measures matter?

Regarding the empirical work, we pointed out that not all measures of law enforcement reflect the reality in practice that shapes creditors' behaviour. In general, it is difficult to measure the performance of institutional aspects especially enforcement mechanisms, since they involve subjective perceptions, behavioural assumptions and different economic realities which are reflected in the different transactions that dominate the particular economy. Campos (1999) referring to 'rule of law' indicator points out that these are multidimensional measures implying the need for different measures for each dimension, and until full-fledged surveys are designed specifically to measure governance are developed, studies will have to utilize existing data with less than ideal data for that purpose.

To see the importance of the methodologies used in measuring the functioning of the legal institutions we have utilized the same regression framework discussed so far but replaced our preferred measure of law enforcement (ENFORCE_PLEDGE) with the World Bank Doing Business methodology measure of enforcement of the simple debt contract (ENFORCE_WB). Important to note is that ENFORCE_PLEDGE and ENFORCE_WB have a very low correlation coefficient of 0.01 (and insignificant). This gives an impression that different proxies of law enforcement matter and not all the proxies may be good reflections of the underlying reality. The results of the regression are presented in Appendix 4 and suggest that the simple debt contract enforcement does not have an impact on financial development, neither statistically nor economically.

In many cases ENFORCE_WB enters with wrong sign e.g., specification [4], [5], and [6]. Only in specification [10] (with NPL) does ENFORCE_WB enter significantly but with positive sign e.g., better enforcement of creditor rights leads to higher NPL. Hence, the results seem very dependent on the choice of variables measuring law enforcement which are in general difficult to measure. Our measure seems intuitively to be an improvement since ENFORCE_WB may not capture bank-borrower relationship in a classical sense. Having regarded this, and claiming that the EBRD law enforcement measure is an improved indicator, we aim at applying it for the case of Kosovo with some extensions.

5. LAW ON BOOKS AND LAW ENFORCEMENT IN KOSOVO

During the first decade of transition when TEs have tried to REFORM institutions supportive for the market economy, Kosovo went through period of Serbian regime in which virtually all Kosovo Albanians were expelled from the institutional life. Kosovo after the war under the governance of the UNMIK had to build its institutions from the scratch. Broadly speaking, no institutions existed in 1999 and administrative capacity based on previous experience was insufficient to deal with the need establishing institutions of the market economy. Basically, the laws of socialist Yugoslavia (i.e., those of 1989 and before) were in force. Under the joint administration by UNMIK and Kosovo Government, and with the help of international community either in form of technical assistance or as the part of

administrative capacity, new laws have been adopted and mainly based on the best international practices.[12]

The case of Kosovo is rather not much explored in terms of the functioning of institutional and other transition reforms, as well as the legal aspects related to finance. Due to the unresolved political status, Kosovo is not in the EBRD countries of operation, hence is excluded from the comprehensive assessment of the transition success. However, some serious attempts have been made recently in assessing the Business Condition Index for Kosovo (2005) using a World Bank Doing Business methodology (hereafter BCI) that deals with many institutional aspects that influence the operation of firms, including law on books and law enforcement related to the functioning of the financial sector. Regarding the law on books, many regulations are already in place and it may be said that these regulations follow good practices in strengthening creditors' rights.

BCI (2005) assessed law on books supportive for the functioning of the financial market regarding the legal rights as they are written in the law and contract enforcement index. For the law on books the key sources were bankruptcy and pledge law i.e., three aspects of bankruptcy law and seven aspects of collateral law (see Appendix 5 for the scoring system). Kosovo attained similar rating on the quality of law in books compared to other TEs. Regarding the countries in the region, only Albania compares better (see Chart 1 below).
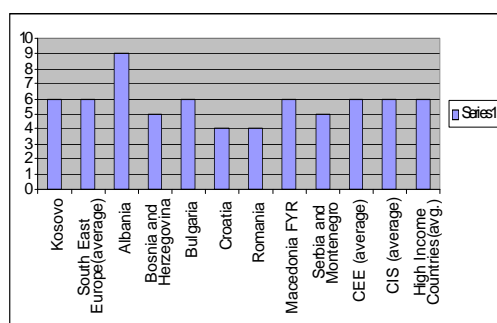
Figure 1. Creditor Rights Index in Kosovo   *Figure 2. Credit information index*
Source: BCI (2005).
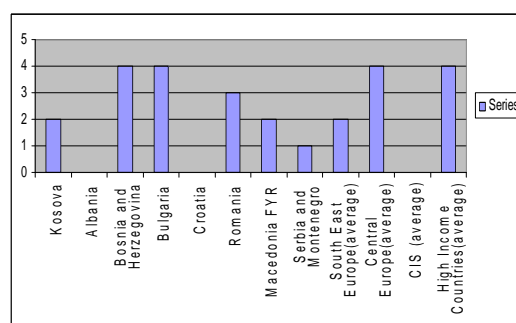
As we have seen previously 'information hypothesis' suggests that when lenders have more information about the borrowers it facilitates lending. BCI (2005) assessed the quality of credit register in Kosovo (see Appendix 5 for the scoring system). Kosovo scores similar to the SEE average which is behind the CEE average and high income countries (Chart 2). Compared with the countries in the region Kosovo outperforms Albania, Croatia and SCG while falls behind BiH, Bulgaria and Romania. Overall, it appears that the creditor rights are well protected in the law on books in Kosovo.

The World Bank (2004) has evaluated the 'laws in action' in Kosovo and pointed out many deficiencies in court procedures. Aspects such as the unpredictability of the judgment, the length of the process, the complexity and lack of clarity in procedures are considered as constraints in enforcing creditor rights which may encourage a

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[12] For example, the law on Banking and Payments Authority of Kosovo, the Pledge Law, the Bankruptcy Law, etc.

culture of non-payment on the borrowers' side. In addition, based on oral interviews with bankers in Kosovo, Zahler (2004) claims that courts and judges tend to favour borrowers *vis a vis* the lenders in disputes. Again he points to poor functioning of legal institutions governing financial transactions.

However, BCI (2005) points to very favourable picture regarding the contract enforcement in Kosovo (see Appendix 5). Kosovo outperforms all TEs on average, all countries in the region and even high income countries, which is a quite surprising result. For example, in Kosovo it takes 153 days to enforce a simple debt contract, while in SEE 492 days, CEE 442 days, CIS 331 days and in high-income countries 280 days, on average.
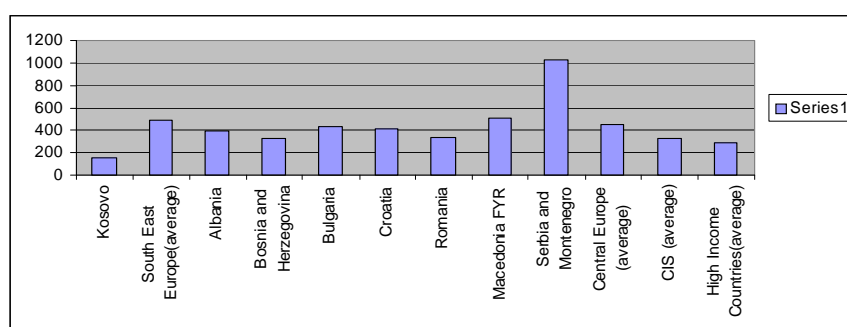
Figure 3. Contract enforcement days
Source: BCI Kosova (2005)

It should be noted, however, that this methodology regarding the legal enforcement has its drawbacks mentioned in section 2.3 and may not capture lender-borrower relationship in a classical sense. From the methodological point of view, the EBRD is well placed in dealing with legal aspects of financial development in transition, especially legal enforcement concerning directly bank-borrower relationship. Since we are interested particularly in the law enforcement, we will limit ourselves to the EBRD NLIS case study approach since we have claimed that this measure is an improvement in this respect. In the remainder of the paper we aim to review the results of doing this.

5.1. Extending the EBRD-NLIS

In our analysis of the law, we follow Cooter and Rubinfeld (1989) who recognize four stages of the legal disputes: harm, assertion of legal claim, bargaining and trial. In the context of the bank-client relationship, the process of dispute resolution can be thought as a game between the lender and defaulting borrower. Each stage forms the expectations of recovery on the lenders' side. First, dispute can be solved by voluntary compliance i.e., where no involvement of formal institutions takes place. It may happen that most of the cases are solved in such a manner e.g., the threats that banks use upon borrower default are successful. In this phase, some amount will be recovered and it will take some time for the recovery to take place. Pistor, *et al.* (2000) point out that where voluntary compliance is high, enforcement by the state is necessary in only a few cases and thus can be quite effective – provided that a minimum level of resources is available and voluntary compliance requires a credible threat that defection will be sanctioned.

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The issue of voluntary compliance is not addressed and explored by the EBRD since the methodology was designed exclusively to explore how the legal institutions work. The evolution of voluntary compliance may be linked to various possibilities. Agents may know *ex ante* that the law and institutions that support that law are in place. Or agents have no knowledge about the law and simply enforce contracts based on trust, care about their reputation and/or calculate costs/benefits of defaulting. On the other hand, banks may prefer not to use courts because they consider them to be slow and thus opt using other means. Hay, *et al*. (1996) point out that the legal system may not be used to resolve disputes because bad courts raise the cost of using legal system, court fees may be prohibitively high, judges may be corrupt, uninformed and incompetent, courts may be unpredictable and so it takes years to get a dispute resolved, by which time the volume of damages that might be collected falls to zero in real terms.

If institutions would make the threat of enforcement credible, then voluntary compliance outweighs the compulsory enforcement and will reduce transaction costs. By looking only to the formal part of dispute resolution is only part of the story. Of course, both formal and informal resolution should not be seen as substitutes. But rather they complement each other, specifically when formal resolution is efficient, informal one should be more pronounced.

Second, the bargaining phase can be thought of as a step before the dispute comes to formal resolution, i.e., court involvement. Again some amount will be recovered and it will take some time for the recovery to be made. Again, this issue has not been explored by EBRD. The weakest party in the bargaining phase would reveal the functioning or at least perception on how institutions are functioning. If lenders are weakest in this phase, i.e., ready to make concessions, then this may signal poor performance of institutions in the dispute resolution.

When it comes to enforcement then two possibilities exist: self-help and court involvement. If majority of disputes are solved without court involvement (with self-help), again that would reflect not so much on the effectiveness of the law explicitly. Rather, it may point to 'credibility without experience', which would have policy implications i.e., enforcement by the state is necessary in only a few cases to make the threat credible and thus can be quite effective involving low costs. As a result, we will try to make this distinction more clearly. In all these stages the issue of how much and how fast the problem loans are recovered is of importance.

The EBRD case study asks lawyers to respond to the questions how much and how fast the recovery is made by assuming there is ready market for collateral. Again, whether market for collateral exists is of crucial importance in shaping lenders' expectations on the debt recovery. We will have closer look on this issue too. The EBRD NLIS on pledges will be extended to take into account issue of voluntary compliance on borrower's side, bargaining phase of dispute resolution, more clear distinction between methods of enforcement and the existence of market for collateral will be made. The original EBRD NLIS will be kept in order to have comparable results with other countries.

5.2. NLIS for Kosovo

The EBRD NLIS 2003 methodology has been conducted with several bank officials from two largest banks in Kosovo: loan officers and legal departments. The crucial issue of the survey was how much the creditor can recover from defaulting loans through the enforcement process in terms of value, how long the recovery process is likely to take and how simple is the entire process. In addition, process and scope factors were able to be determined. It is important to note that, unlike the EBRD, in addition to legal experts we surveyed loan officers. The reason behind choosing both, legal and loan officers is that when it comes to voluntary compliance legal departments have no experience whereas loan officers are first in the line. While when it comes to court involvement, loan officers too are part of the story.

The survey results reveal that enforcement of secured transactions in Kosovo does not look bad after all. This was also the case with BCI (2005), as mentioned previously. However, the picture here is not as shining as there, but we hope is more realistic. Regarding the 'how much' question, Kosovo scores 6 out of 10; that is, lenders may expect to recover a bit above 60% of the loan with the pledged collateral. Regarding the 'how fast' question, Kosovo scores 8 out of 10; that is, lenders may expect to recover the pledged collateral within 6 months. And for simplicity of the entire process, the score is 5 out of 10. The reason that we did not score 1 (the best ranking) in simplicity is that, although the process is simple, the answer on the functioning of courts i.e., inexperienced judges to deal with the cases, the lack of special courts to deal with these cases, made the best score unlikely. The overall score for Kosovo is 19. As shown in chart 4, this is above the SEE and CIS average, but not the CEE average. From the countries in the region Bulgaria, Croatia and Macedonia are ahead. But perhaps more importantly, Kosovo is not far behind.
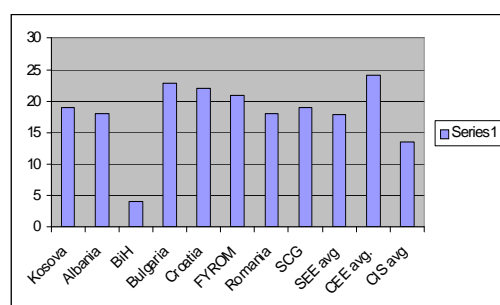
Figure 4. NLIS 2003 in Kosovo   *Figure 5. Process and scope factors in Kosovo*
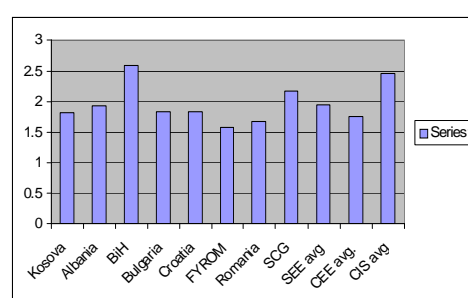
Regarding the 12 process and scope factors, Kosovo scores 1.82 which outperforms the CIS average (2.18) and the SEE average (1.95) but not CEE average (1.68) and scores better than all the countries in the region except Macedonia and Romania (recall here lower the score better the rating). The major problems among the process and scope factors were ranked 'immovables' and 'receivables'. The score was (3) which would mean that when it comes to the enforcement process involving immovables and receivables the picture would change to a great extent and lenders would face difficulties in recovering their claims. Score (2) was attained in the creditor control, corruption, institutions and scope of collateral. The best score (1) was attained for debtor obstruction, preferential creditors, practical experience, insolvency ranking and inventory. The insolvency process was not scored due to lack of experience with the bankruptcy proceedings.

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As mentioned, we extended the survey to capture other elements prior to legal enforcement such as voluntary compliance, bargaining, self-help and market for collateral. Survey results reveal that around 70% of defaulted loans never go to court and are solved with voluntary compliance i.e., after the 'threat' is made. In these cases the recovery is on average 60% of the amount, and these cases are solved within a period of 1 to 2 months. From the threats that banks use, the most important one is 'the bank will involve the court' and the second ranked by importance is 'the bank will confiscate the collateral'. In third place were ranked reputation considerations such as 'bank will never extend credit in the future', 'the bank will induce guarantor to pay the debt,' etc. This may give an impression of the credibility of institutions in a country or at least in the lender – borrower relationship.

When it comes to bargaining it is rarely practiced (10-15% of cases). If it is to happen, lenders are not likely to give significant concessions. For example, they may postpone a bit period of repayment but not other terms. Again, recovery in these cases is high and around 80% of the amount is recovered within 1 to 2 months. This may point to the better bargaining position of the banks, given the credibility of institutions and reputation considerations. When it comes to existence of the market for collateral (the assumption in the NLIS case study), the picture is bit distorted. From the assets pledged only 50% have a ready market and the recovery was only around 30% of loan amount and within a period of 4 months. This, however, has nothing to do with legal institutions. Rather it may suggest that banks themselves lack proper expertise in evaluating collateral.

This is not to say that enforcement does not matter. On contrary, it should be in place and credible, otherwise it increases culture of non-payment. The credibility of enforcement will decrease adverse incentives in the credit market, we will see less reliance on the courts which decreases TC compared to when courts are used. It is also the creditor passivity in demanding legal services that plays a role. Hendley, *et al*. (2000) assessing law enforcement in Russian enterprises, point out that institutional environment rewards enterprises that pay attention to the legal side of their operations. Better enforcement performance occurs when the legal staff works extensively on contractual matters, when enterprise personnel possess larger amounts of legal human capital. KCBS (2005) points out that one bank in Kosovo aggressively enforces its legal repossession and sale rights of collateral with the help of own legal staff who work closely with the judges, sometimes 'showing them how', and is quite successful.

Overall, the creditor rights on the books and their enforcement in Kosovo seems to be comparable, and in some cases better, with the countries in the region and other TEs. Nevertheless, the country is lagging behind the advanced reformers in CEE who are now members of the EU, would point that the institutional reform is under way and needs still long way to go.

6. CONCLUSIONS

Market imperfections exist and do lead to credit rationing. The collateral plays a role but if institutions are not there to ensure creditor rights, credit rationing may still prevail. More specificly, if creditor rights are protected in law on books, and more importantly, those laws are not enforced properly, credit markets will be narrower, external finance will be available on a shorter term, will be more expensive and firms will face financing constraints and underinvest. The theory and empirical literature support these assertions, however, in the transition context are not extensively studied and supported. In addition, the measures of law enforcement are important in the sense that if do not capture specific context, may be misleading.

TEs, especially those that lagged in the institutional reform, have shown to have underdeveloped credit markets. Empirical assessment in this paper on the role of institutions, specifically creditors' rights as they appear on books and their enforcement, shows that law enforcement rather than law on books matters for financial development in TEs. It is important to note that the financial development is a broader notion and has many dimensions and not just its depth is of importance as usually used in the literature. Better enforcement of creditor rights is related to cross-country differences in almost all the measures of financial development in TEs. We also show that different measures of law enforcement do not yield similar results. This leads us to conclude that it is of crucial importance how we measure the quality of institutions, which is in general difficult to measure.

After the war Kosovo build new institutions from scratch. Although embarking on transition process later, it compares well with other TEs regarding the creditor rights and enforcement. When it comes to enforcement, it is of crucial importance the demonstration effect of enforcement institutions that build credibility and trust in the legal process. The credible enforcement in turn may develop self-enforcing and voluntary compliance mechanisms. Provided that the court involvement has relatively higher transaction costs, more disputes will be resolved out of court thus economizing in those costs. On the other hand, provided that not many cases go to court little investment in enforcement mechanisms should take place for the credibility to be assured, which will have large positive implications for correcting adverse incentives in the credit market.

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Appendix 1. Enforcement of secured transactions survey
Enforcement of Security Right over movables

Based on an annual survey run by the EBRD in all of its countries of operations, we have developed a slightly modified version of it with some extensions. A brief description of a hypothetical case is made and we would be grateful for your answers to the questions. The purpose of the questions is to assess the effectiveness of the law and practice on secured transactions in Kosovo. More precisely, we aim to assess the enforcement of a security over assets in terms of percentage of debt recovery, speed and simplicity for the creditor. It is presented as a case study so that answers reflect the practical position, as opposed to the letter of the law.

When responding, please:

-    As far as feasible treat it as if it is a real-life case involving a client.
-        Add any practical advice you face seeking to enforce.
-        Add also any practical advice you would normally face at the time of creation of security in order to increase the effectiveness of the security and/or facilitate enforcement. Answer assuming that these steps were taken. You would therefore assume in your answers that these specific steps (contractual clauses, special form of the document, etc) have been taken.
-        Keep answers brief: we are looking for a reasonably accurate overview, but do not expect to cover every possibility.
-        Where there is more than one method of enforcement, please cover in detail the **one** that you would recommend using, and mention briefly the other ones.
-        Assume that the loan is in Euro and that the amount (€20,000) is sufficiently high to justify a court action.

Terminology

To keep answers consistent and in order to avoid ambiguity we set out below a brief explanation of the terminology used in this case study. It would be useful if you could use the same terminology in your answers and provide, as required, an explanation of other terms used.

Charge: a right in assets to secure payment of a claim for money (same as **pledge**), given by a **chargor** (in this case the manufacturing company) in favour of a **chargeholder** (in this case the bank).

Charged assets: assets over which a charge is given (same as **charged property** or **collateral**) - in this case the production equipment and machinery and the inventory of finished products.

Enforcement: the process by which the rights of the chargeholder over the charged assets are exercised.

Realisation: the sale of the charged assets on enforcement.

Receivables: monetary claims that a creditor has against a debtor, for example amounts due for the supply of goods or services.

Secured claim: the claim of the chargeholder that is secured by the charge (same as **secured debt**).

Security: an umbrella expression used to cover rights given to a creditor to reinforce or 'secure' his right to payment.

Self-help or self enforcement means when bank enforces the pledge over collateral;
Court involvement - means when court undertakes the action in enforcing the pledge over collateral.

CASE STUDY AND THE QUESTIONNAIRE

> **Case description**
>
> One of your customers, a local privately owned retail trade or manufacturing limited company, has failed to repay a loan of €20,000. There was no invalidity to the underlying loan agreement: the default is due to cash flow problems. The debtor has thus no valid defence to the non-payment of the loan.
>
> Your customer has given you security over:
>   (1) **equipment and machinery** used in its company, and
>   (2) **inventory** consisting of finished products (Note: Assume that the equipment and machinery qualify as **movable** assets).
>
> We now ask you on how you can enforce your rights over the assets given as security in order to recover our claim:

PART 1

1) a) How can you confirm that your security is valid and enforceable? (For example, what evidence is needed of the creation or stamping or registration of your security?)

b) How can you confirm that your right to enforce has arisen? (For example, what evidence of the debtor's failure to pay is needed?)

2) What are the possible method(s) of enforcement (brief summary only)?

3) a) In respect of each of those methods: what steps do you need to take to initiate enforcement procedure (brief summary only)?

b) How long does it take to initiate the procedure? (If there is more than one method, please explain when you would use each method; please do not refer to the period as specified on the law on pledges but on actual experience).

4) If you would prefer to sell the charged assets by yourselves or at least to exercise some control on the way realisation takes place. Is this possible? Would you prefer to go down this road?

5) What will be included in the collateral to be realised?

• For example, if one of the machines included in the charge was recently replaced, will the new machine be included in the charged assets?

• If an additional machine was recently purchased, will that new machine be included in the charged assets?

• If another machine was sold, do you have a charge over the proceeds of sale?

• Part of inventory was sold and new inventory was added: would it be included?

6) You are advised that there is a ready market for the goods in the inventory and that their market value is approximately €11,000. You are also advised that there is good demand for the production machinery and that, on the basis of recent sales of similar machinery, its value is also approximately €11,000 (if inventory was not charged, assume that the production machinery value is of € 22,000). On sale through the court enforcement procedure, is the price likely to be at or near to market value? If not, please indicate the likely level as a percentage of market price.

7) a) What costs will be incurred on enforcement e.g. legal fees, executor fees, auction fees, etc. (if there is more than one method for enforcement, please give costs for each)?

b) Will they be recoverable as part of your claim?

8) How long is enforcement likely to take from start to receipt of sale proceeds (if there is more than one method for enforcement, please give time for each)?

9) a) In what ways can the debtor delay or otherwise obstruct the enforcement process?
   b) Is it likely to happen?
   c) What steps can you take to prevent this from happening?

10) Could claims of other parties affect your rights of recovery?

• For example, if the company owed tax arrears, would the tax office have a preferential claim over the charged assets?

• How about claims of employees?

• How about shareholders?

• Creditors with or without a court order or an enforceable judgement?

• Other charges, liens, retention rights or other rights arising by law?

• Other?

11) In addition to the loan amount of €20,000 your customer owes you

• €1,000 interest on the loan
• €800 penalty for breach of contract
• €200 costs for inspection of charged assets and other items under terms of our contract.

Can these sums be recovered through the enforcement procedure (please keep answer brief)?

12) You have been advised that your customer may soon be declared insolvent. Please advise how your answers would change if this were to happen:

a) prior to you starting enforcement.

b) after you start enforcement but before completion of realisation.

Despite the complexity of the matter, please try to keep your answers brief.

13) Please also advise to what extent your answers to each question would be different:

a) if the charged assets were immovable, for example a building with a market value of about € 60,000 (but not residential apartment)?

13b) if the charged assets were receivables (e.g. claims of your customer for payment from persons to whom he has sold goods)?

14) What do we need to know about how the courts and other legal institutions (e.g. bailiffs or court enforcement officers) operate in your country which has an impact on your answers and our understanding? For example, are there specific commercial courts, well equipped to handle commercial matters?

15) Is the corruptibility of the court or court officials likely to be an issue? Please provide some brief narrative as the basis of your opinion.
Which of the following statements (related to question 15) best fits to the reality in practice?

- How many charge enforcement cases have your bank handled in the past 5 years?

- Is charge enforcement common practice in your country? If not, why?

This case has been drafted in standard form to cover a number of different jurisdictions. Please feel free to add any comments on issues relevant to your country that may have been omitted or inadequately covered.

PART 2

1) Are any 'threats' used against defaulting borrower?

YES   NO

2) They are successful? _____% of cases, or

(tick one)

       always   ☐

       in most of the cases   ☐

       rarely   ☐

       never   ☐

3) Which 'threats' (please rank by importance)?

a) the bank will confiscate the collateral   ☐

b) the bank will involve the court   ☐

c) bank will recover the debt from the guarantor   ☐

d) will never extend credit in future   ☐

e) other (please specify) _____

4) From all the cases of borrowers in default that you have had, how much, approximately, (% of cases) have been solved **without court action nor self-help** (*client repaid so there was no need to seize collateral*), so after the 'threat' is made?

_____ %

5) How much the loans (in % of amount) has been recovered after the 'threat' is made
_____ % ,or

      0 – 25%   ☐

      25 – 50%   ☐

      50 – 75%   ☐
      75 – 100%   ☐

6) How fast the recovery was? (express in days or months)

_____

7) From all the cases of borrowers in default that you have had, how much, approximately, (% of cases) have been solved **without court action (collateral was seized with self-help)**?

_____ %

8) How much the loans (in % of amount) has been recovered in these cases
_____ % ,or

0 – 25%   ☐

25 – 50%   ☐

50 – 75%   ☐

75 – 100%   ☐

9) How fast the recovery was? (express in days or months)

_____

10) In how many cases the renegotiation of the terms of contract has been made?

_____%; or

always   ☐

in most of the cases   ☐

rarely   ☐

never   ☐

11) What terms are usually offered by the bank in terms of time rescheduling the repayment and amount?

12) What % is usually recovered in these cases?
_____%

13) How long does it take usually to recover the debt through renegotiation?

_____ (days, months)

14) From the debts that were in default and the action was undertaken to pledge collateral,

what is the share with self-help   _____%

and what is the share with court involvement   _____%

15) Why do you think the legal actions are not undertaken? (tick only one which is more likely)

a) **you** think that courts do not work well and you prefer self-help?   ☐

b)   **clients** are reluctant to deal with courts?   ☐

16) From the default cases that you have had, have you succeeded in selling collateral?

_____% of cases, or

always   ☐
most of the cases ☐
rarely   ☐
never   ☐
17) How long have you kept collateral without selling it? (express in days or months)

_____

18) On average, how much the amount of loan was recovered?

_____ % ;

19)   What are the legislative gaps that you usually face in the practice?

20) Related to the questions in Part 2, was the situation different say two years ago?

Appendix 2. The list of variables, their description and data sources

Variable	Description	Source
PRIV_CRED	The ratio of total outstanding bank credit to the private sector as of 2003, including households and enterprises, to GDP	EBRD (2004)
CRED_FIRMS	The ratio of total outstanding bank credit to the private sector as of 2003, excluding households, to GDP	EBRD (2004)
CRED_HOUSE	The ratio of total outstanding bank credit to the household sector only as of 2003, to GDP	EBRD (2004)
CRED_GROW	The average yearly growth from 1998 to 2003 of the total outstanding bank credit to the private sector to GDP	EBRD (2004)
NPL	The ratio of non-performing loans to total loans in 2003 which includes sub-standard, doubtful and loss classification categories by country (NPL).	EBRD (2004)
INTEREST	Lending rates are weighted averages across maturities	EBRD (2004) European Commission (2004)
REAL_INT	Lending rates are weighted averages across maturities – corrected for inflation	EBRD (2004) European Commission (2004)
SPREAD	Lending minus deposit rate	EBRD (2004) European Commission (2004)
DEBTMAT	Average maturity of loans to firms in a particular country	The World Bank and EBRD, BEEPS 2002
FINOBST	Financing obstacle variable measures how problematic is financing for the growth and operation of particular firms ranging from 1 (no obstacle) to 4 (major obstacle) and the data are average by country	BEEPS 2002
LEVERAGE	Leverage measured by percent of firms' debt to total assets, average by country	BEEPS 2002
BANKFIN	Proportion of firms' working capital and fixed investment financed through banks in percent, average by country	BEEPS 2002
ENFORCE_PLEDGE	The enforcement of secured transactions laws in TEs, as measured by the EBRD survey through case study in terms of amount, time and simplicity. The scores take values ranging from 0 to 30.	EBRD (2003)
ENFORCE_BANKPT	The EBRD measure of the enforcement of creditor initiated bankruptcy cases in TEs and the scores take values ranging from 0 to 100. Higher the score, the better enforcement of the particular law is practiced in a country.	EBRD (2004)
LAW_BOOK	The index measures the degree to which collateral and bankruptcy laws facilitate lending. It is based on data collected through research of collateral and insolvency laws supported by the responses to the survey on secured transactions laws. It includes three aspects related to legal rights in bankruptcy, and seven aspects found in collateral law. The index ranges from 0 to 10, with higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit.	Djankov et al (2005); BCI (2005)

CREDIT_INFO	This index measures rules affecting the scope, access and quality of credit information available through either public or private bureaus. The index ranges from 0 to 6, with higher values indicating that more credit information is available from either a public registry or a private bureau to facilitate lending decisions.	Djankov et al (2005); BCI (2005)
INFLATION	Average yearly inflation over the period 1998-2003 expressed in percentages	EBRD (2005)
DEFICIT	Average yearly government deficit to GDP ratio over the period 1998-2003 expressed in percentages	EBRD (2005)
GDPGROW	GDP growth rates over the period 1998-2003 and expressed in percentages.	EBRD (2005)
ENFORCE_WB	The indicator measures the time of dispute resolution—in calendar days— counted from the moment the plaintiff files the lawsuit in court until settlement or payment. This includes both the days where actions take place and waiting periods between actions. The respondents make separate estimates of the average duration of different stages of the dispute resolution: until the completion of service of process, the issuance of judgment (duration of trial or administrative process), and the moment of payment or repossession (duration of enforcement).	Djankov et al (2005); BCI (2005)

Appendix 3. OLS estimation on financial development indicators in TEs

	[1] PRIV_CRED	[2] CRED_FIRMS	[3] CRED_HOUSE	[4] CRED_GROW	[5] NPL	[6] INTEREST	[7] REAL_INT	[8] SPREAD	[9] DEBTMAT	[10] FINOBST	[11] LEVERAGE	[12] BANKFIN
ENFORCE_PLEDGE	1.03***	0.91***	0.03	0.17**	-0.23	-0.03***	-0.36**	-0.04***	0.25	-0.03***	0.40**	0.33*
	(0.38)	(0.25)	0.03	(0.08)	(0.21)	(0.01)	0.16	(0.01)	(0.27)	(0.01)	(0.17)	(0.18)
ENFORCE_BANKRPT	0.07	0.09	-0.002	0.01	-0.03	0.006	0.03	0.002	0.23	-0.006	0.04	0.03
	(0.22)	(0.16)	0.2	(0.05)	(0.12)	(0.006)	0.09	(0.009)	(0.16)	(0.005)	(0.10)	(0.11)
LAW_BOOK	-2.02	-0.31	-0.13	-0.55	-0.90	0.04	0.19	0.003	1.62	-0.007	0.51	0.09
	(1.67)	(1.19)	0.12	(0.36)	(0.90)	(0.05)	0.71	(0.07)	(1.18)	(0.04)	(0.74)	(0.80)
CREDIT_INFO	0.29	-1.12	0.25**	-0.26	-0.27	-0.15***	-0.73	-0.12**	2.22**	0.04	-0.76	-0.33
	(1.49)	(0.78)	0.11	(0.32)	(0.84)	(0.04)	0.62	(0.06)	(1.04)	(0.04)	(0.66)	(0.70)
GDPGROW	-0.69	0.03	-0.07	0.30	-1.40**	-0.04	-0.12	-0.10**	-0.03	-0.02	-0.71	-0.25
	(1.07)	(0.72)	0.08	(0.23)	(0.59)	(0.03)	0.45	(0.04)	(0.75)	(0.03)	(0.47)	(0.51)
INFLATION	-0.24**	-0.09	-0.01	-0.05*	-0.02	0.01***	-0.03	0.003	-0.18**	0.004	-0.06	0.04
	(0.12)	(0.08)	0.01	(0.026)	(0.06)	(0.003)	-0.05	(0.004)	(0.08)	(0.003)	(0.05)	(0.06)
DEFICIT	-0.88	-0.95	-0.01	-0.13	0.41	0.008	0.44	0.04	0.93	0.02	1.08*	0.45
	(1.22)	(0.83)	0.08	(0.26)	(0.70)	(0.04)	0.51	(0.05)	(0.86)	(0.03)	(0.54)	(0.58)
CONSTANT	17.71	0.03	2.05	0.35	23.93	2.90***	13.62	3.16***	-6.22	3.13***	15.43	9.34
	(20.15)	(14.38)	1.45	(4.35)	(10.82)	(0.58)	8.38	(0.80)	(14.22)	(0.47)	(8.99)	(9.57)
N	25	25	25	25	25	25	25	25	25	25	25	25
R^2	0.31	0.29	0.36	0.13	0.62	0.65	0.47	0.41	0.48	0.16	0.50	0.03

Note: ***, **, * denote significance at 1%, 5%, 10%, respectively; standard errors in parenthesis.

Appendix 4. OLS estimation on financial development indicators in TEs

	[1] PRIV_CRED	[2] CRED_FIRMS	[3] CRED_GROW	[4] INTEREST	[5] SPREAD	[6] DEBTMAT	[7] FINOBST	[8] LEVERAGE	[9] BANKFIN	[10] NPL
ENFORCE_WB	-0.004	-0.002	-0.001	-0.001	-0.002	0.004	0.004	-0.006	-0.003	0.02***
	(0.013)	(0.01)	(0.002)	(0.004)	(0.005)	(0.007)	(0.003)	(0.006)	(0.005)	(0.003)
ENFORCE_BANKRPT	0.012	0.04	-0.001	0.01	0.006	0.21	-0.005	0.01	0.02	-0.08
	(0.27)	(0.22)	(0.05)	(0.01)	(0.01)	(0.17)	(0.006)	(0.12)	(0.11)	(0.08)
LAW_BOOK	-0.84	0.66	-0.35	0.05	-0.05	1.91	-0.04	0.97	0.46	-1.12*
	(1.91)	(1.54)	(0.39)	(0.06)	(0.08)	(1.16)	(0.04)	(0.82)	(0.83)	(0.57)
CREDIT_INFO	1.89	-0.41	0.008	-0.16***	-0.19***	2.63***	0.006	-0.11	0.13	-0.16
	(1.62)	(1.00)	(0.33)	(0.04)	(0.06)	(0.99)	(0.04)	(0.69)	(0.70)	(0.49)
GDPGROW	-1.56	-1.00	0.16	-0.002	-0.08	-0.17	0.02	-0.99	-0.64	-0.18
	(1.41)	(1.01)	(0.29)	(0.04)	(0.06)	(0.86)	(0.03)	(0.61)	(0.61)	(0.43)
INFLATION	(-0.24	-0.11	-0.05	0.01***	0.003	-0.18**	0.004	-0.06	0.04	-0.003
	(0.14)	(0.11)	(0.03)	(0.004)	(0.006)	(0.08)	(0.003)	(0.05)	(0.06)	(0.04)
DEFICIT	-0.57	-1.11	-0.08	0.05	0.02	1.00	0.01	1.20*	0.55	0.40
	(1.44)	(1.10)	(0.29)	(0.05)	(0.06)	(0.88)	(0.03)	(0.62)	(0.62)	(0.45)
CONSTANT	35.28	18.89	3.26	1.70***	2.61***	-2.72	2.55***	21.77	16.11	9.77
	(23.93)	(18.49)	(4.86)	(0.76)	(0.97)	(14.59)	(0.55)	(10.27)	(10.35)	(7.08)
N	25	25	25	25	25	25	25	25	25	25
R^2	0.03	0.24	0.09	0.42	0.16	0.46	0.13	0.34	0.13	0.84

Note: ***, **, * denote significance at 1%, 5%, 10%, respectively; standard errors in parenthesis.

Appendix 5. Business Condition Index in Kosovo (2005)
The World Bank methodology for the Legal Rights Index, Credit Information Index and Contract Enforcement – Explanatory Note

Legal rights index: The index measures the degree to which collateral and bankruptcy laws facilitate lending. It is based on data collected through research of collateral and insolvency laws supported by the responses to the survey on secured transactions laws. It includes three aspects related to legal rights in bankruptcy, and seven aspects found in collateral law. The index ranges from 0 to 10, with higher scores indicating that collateral and bankruptcy laws are better designed to expand access to credit. A score of 1 is assigned for each of the following features of the laws in Kosovo:

Secured creditors are able to seize their collateral when a debtor enters reorganization-that is, there is no "automatic stay" or "asset freeze" imposed by the court. 0

Secured creditors are paid first out of proceeds from liquidating a bankruptcy firm, as opposed to the other parties, such as government or workers. 1

Management does not stay in reorganization. An administrator is responsible for managing the business during reorganization, rather then management of bankrupt debtor. 1

General-rather then specific –description of assets is permitted in collateral agreements. 1

General-rather then specific –description of debt is permitted in collateral agreements. 0

Any legal or natural person may grant or take security. 1

A unified registry includes charges over movable property operates. 1

Security provides priority outside of bankruptcy. 0

Parties may agree on enforcement procedures by contract. 0

Creditors may both seize and sell the collateral out of court. 1

Summing up these scores, gives the value of legal rights index for Kosovo of 6.

Credit information index: This index measures rules affecting the scope, access and quality of credit information available through either public or private bureaus. The index ranges from 0 to 6, with higher values indicating that more credit information is available from either a public registry or a private bureau to facilitate lending decisions. A score of 1 is assigned for each of the following six features of the credit information system in Kosovo:

Both positive and negative credit information is distributed. 1

Data on both firms and individuals are distributed. 1

Data from retailers, trade creditors and/or utilities as well as financial institutions are distributed. 0

More than five years of historical data is preserved. 0

Data on loans of above 1 percent of income per capita is distributed. 0

By law, consumers have the right to access their data. 0

This gives the Credit Information Availability Index for Kosovo of 2.

Questionnaire on enforcing contracts

The purpose of this questionnaire is to collect basic information about litigation practices. The questionnaire is based on a hypothetical case, which has to do with the collection of a returned check (invoice).

There is scenario which assumes that the plaintiff (creditor), a small merchant, delivers some goods to the defendant (debtor) worth the equivalent in local currency of € 2,000 (or 200% of GNP per capita of Kosovo). Defendant tenders a check from his or her personal bank account in full payment of the amount owed. The check complies with all formal requirements and is entirely unconditional. The creditor timely presents the check for payment and the bank rightfully refuses to pay it for insufficient funds. Plaintiff and defendant reside both in the largest city of the country, and the check is from a local bank. There is no doubt that the underlying transaction was legal and that the plaintiff fully performed his/her part (100% compliance). Plaintiff files a lawsuit, which includes the original check returned by the bank (if necessary). Given this scenario and the assumption given above regarding this component, this questionnaire describes step by step the process for collecting a check (invoice).

Time (days): The indicator measures the time of dispute resolution—in calendar days— counted from the moment the plaintiff files the lawsuit in court until settlement or payment. This includes both the days where actions take place and waiting periods between actions. The respondents make separate estimates of the average duration of different stages of the dispute resolution: until the completion of service of process, the issuance of judgment (duration of trial or administrative process), and the moment of payment or repossession (duration of enforcement).
Based on laws, these procedures in Kosovo take 65 days to complete, but in practice it usually takes 153 days. In the BCI we present the last figure.

AN EQUITY GAP: DOES IT REALY EXIST IN SLOVENIA?

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Abstract

Venture capital is recognized as one of the key catalysts to stimulate creation and growth of innovative and high-growth potential entrepreneurship. However, transition economies suffer from the lack of tradition of equity financing which is one of the main pillars of modern economies. The supply of equity capital is low. On the other side the demand for the equity type of financing remains a big question mark.

Some previous research on equity financing done in Slovenia shows that demand for this type of financing is low. Some evidence derived from secondary data is backed-up by more qualitative methods of collecting and analyzing primary data such as interviews with entrepreneurs and experts, focus groups, case study analysis, etc.

Preliminary results show that market failure of the equity finance market is difficult to be proved. Thus, it seems to be impossible to point out the supply or demand side causality for the existence of the market failure. Therefore, the shift of the market equilibrium to the higher quantities may be facilitated in different ways for supply and demand side. According to this a robust estimation of the size of the market after the facilitated shift of quantity is provided.

The most important contribution of the study will be extended understanding of the equity capital market in Slovenia and pointed out possible solutions for its further development.

1. INTRODUCTION

While debt financing is the most important source of European enterprise finance at least over the past decade, alternative instruments can become a significant factor in providing

flexibility and choices that better reflect the needs of enterprises throughout their development (Cristofidis and Debande, 2001). Venture capital (VC) is likely to become the most important option for specific knowledge based and growth oriented types of SMEs.

The experience of venture capital in the USA shows that different forces call for an increasing share in venture capital financing, either in the form of (formal) venture capital funds, business angels or existing corporations through their capital venturing. Experts used to stress the »equity capital culture« when explaining the strength of VC in the USA and Great Britain (Cumming and MacIntosh, 2004). However, according to some empirical evidence it is not only a true entrepreneurial Anglo-Saxon culture but government support for this type of capital with appropriate regulation and tax policy that is needed. The US government supported innovative SMEs through SBICs (Small Business Investment Companies), tax-policy-preferred capital gains while, in 1978, pension funds were allowed to invest in VC funds. Along with the »silent revolution« involving entrepreneurship and changes in technology, this support has seen growth in the amount of traditional venture capital from around USD 5 billion in the mid-1990s to USD 101 billion in 2000, with an even larger amount of USD 129 billion in informal investments (Bygrave, 2001). VC has also developed a viable organizational structure of partnership management companies that are rewarded according to an investment's success. The European Commission (2001) expressed its commitment to risk capital as a reflection of its concern over the high level of SMEs' dependence on debt finance, as part of efforts to create an entrepreneurial Europe. However, EU countries have trailed behind the development of VC in the USA (Romain and Van Pottelsberghe, 2003) and the economic slump in 2001-2002 seriously aggravated the situation in the venture capital market for both SMEs and VC funds (Himelstein, 2001). Yet, we can assume that following economic recovery VC will again become more important at least for certain types of SMEs or enterprises in certain stages of their existence (Hermann, Liebig and Tödter, 2004). This is very important since VC has backed those companies that have really made technology breakthroughs (Himelstein, 2001). The study of VC-backed firms in Europe shows that VC was an essential ingredient of their creation, survival and growth, while 60% of these said they would not be in business today without the funding and support of venture capitalists. Venture capitalists were seen as contributing much more than finance, for they also provided strategic advice, networking opportunities, credibility and offered a sounding board for new ideas (Mayer, Schoors and Yafeh, 2001).

Transition countries lag behind these VC developments and are still extremely occupied with the problems of bank finance. This is still the case with Slovenia, the most developed transition country, albeit having lower entrepreneurial activity than other EU countries. Improving commercial banking and access to debt capital by reducing the cost of capital and introducing more friendly procedures (Glas, Pšeničny, Vadnjal, 2002) is the key issue for SMEs. However, what is true for average SMEs in general may not be as relevant for dynamic, fast-growing companies that are really the target for venture capital. Slovenian banks and other investors as the supply side of venture capital started early in the entrepreneurship wave of 1990s to become involved in some types of VC investment. However, problems arise more from the demand side and. In addition, the legal, administrative and tax environment is not conducive to such investments. Because of the overall low development of capital markets, one of the main obstacles seems to be the lack of exit possibilities which make the VC market liquid and thus attractive for investors (Seagroves Jr., 2006).

2. DEMAND POTENTIAL FOR VC IN SLOVENIJA

The final objective of the research of the demand side of the venture capital or private equity market has to be ability to estimate the extent of demand for venture (private equity) capital. We derive from the opinion, that demand for venture capital is defined by three groups of factors (Schertler, 2002): (1) the level of entrepreneurial initiative of individuals, (2) innovation potential of the economic environment, with the resulting number of innovative ideas with ambition for entrepreneurial implementation and (3) institutional environment, making decisions on number and terms of financing innovative ideas. Saertre (2001) states, that it is a typical inductive research, where pattern builds on theoretical selection, being more desired and appropriate in comparison to coincidental selection, which is basis of deductive research. A »loose structured interview« is the most adequate format of collecting data, recommended in literature (Miles and Huberman, 1994). It enables a sufficient quantity of information for a quality development of theory and hypothesis (Andersen, 1997), as well on the field of financing with private equity, discussed in this research.

Marino (2006) states that, it is often very difficult to say precisely from where the initiatives for investment projects (deal-flow) come. He quotes many sources, but for none of them he is not confident to make an assertion, which source would be prevalent or what may be the proportion of deal-flow coming from each source: (1) direct contacts between entrepreneurs and investors, (2) formal associations, (3) connecting more funds, (4) informal connections, (5) private agents, (6) institutions of the support environment for entrepreneurship and (7) incubators. Some older data show, that half of proposals for investments into funds come from private or public agents (Murray, 1994), which are different institutions, supporting entrepreneurship and small businesses as a market or a public good. Harrison in Mason (1996) argue that local centers for support and promotion of entrepreneurship and SMEs, which already provide some services that already interleave with some typical functions of management of funds (preliminary due-dilligence), can play an extraordinary important role. Regarding all these facts it seems to be reasonable to regard these institutions as satisfying and significant sources of information to asses the demand side of the venture capital market. However, it turns to be a great research challenge to try to measure and evaluate something that hardly exists and put efforts to predictions of further development. Thus, confirmation of existence of equity gap at the market with really small quantities, appears to be problematic, which is consistent to some previous research (Freshwater et al., 2001).

We estimate that the selection of companies, founded and nursed in technology parks, business and university incubators on one side and spin-off potential on the other side, is correct, as in both cases at least two out of the three conditions, as described by Schertler (2003), are met. Numerically it is a relatively small pattern, which speaks to benefit of the quality research approach. Experiences from the research in the past (Vadnjal and Glas, 2003) argue against the quantity research approach, as it turned out that random selection of a larger number of companies in order to interview them about the venture capital is unreasonable. As we have to deal with two theoretically different concepts, a pre-formulated content of the interview is structured only for the part, where we want to collect quantity data in order to make a rough estimate on the extent of demand for venture capital.

3. METHODOLOGY AND PROPOSITIONS

Complementary operations of business incubators, assuring favorable pre- and start-up environment for new ventures and venture capital for start-ups and early growth, should be the key generators of potential economic growth and regional development (Kjaergaard and Nordstrum Borup, 2004). This statement appears to be consistent with some more anecdotic data on history of deal-flows. Only between 20 and 30 investments (exact number is hard to define) by institutional investors to unquoted companies have been made in Slovenia since 1994. However, the part of this relatively small amount may be considered also to be invested in some privatization companies and spin-offs in the transition period of economy. So, many of these investments may be better defined as private equity rather than venture capital investments. The majority of remaining investments were backed-up also by incubators and technology parks etc. Having also in mind that these elements of support environment have been given additional government assistance recently and that their efforts should be more focused on technology based companies, also to catalyze the underdeveloped venture capital market which is consistent with the efforts done on the level of EU (Da Rin, Nicodano and Sembenelli, 2005). Thus, it is from the viewpoint of research methodology reasonable to expect that their leading personal may be the prevailing sources of information for our research.

Out of the studied references and previous research combined with some anecdotic evidence, we put forward the following propositions to be confirmed or rejected in the following qualitative analyses:

P1.   The existence of equity gap is difficult to be proved in Slovenia.
P2.   The level of knowledge about equity financing is low both among entrepreneurs and professional who assist and support SMEs
P3.   The paradigm that technology parks and incubators can be important source of deal-Flows for venture capital investments cannot be proved for Slovenia
P4.   The venture capital market can be improved by government intervention only through simultaneous actions of cash supplies and soft support

Eleven interviews were conducted to collect the data. The list of interviewees is provided in table 1. The interviews were taped and transcribed with the interview. Different segments of opinions and statements were grounded manually with the assistance of word processor.

Table 1: A list of participants in the research

Institution	Name	Position
University incubator of Ljubljana – LUI	Borut Strle	director
University incubator of primorska – UIP	Iztok Škerlič	director
Venture factory – University incubator Maribor	Matej Rus	director
PI – business incubator Smartstart	Barbara Podlesnik	director
PI – business incubator Sežana	Stojan Gorup	director
Technology park Ljubljana	Iztok Lesjak	director
Technology park – Štajerska	Tanja Senekovič	director
Technology park – Primorska	Rajko Kerševan	director
BSC Kranj	Bogo Filipič	director
PI – business incubator Murska Sobota	Marko Močnik	director
SIC Slovenske Konjice	Jože Šelih	director

Source: own research

The demand side of the venture capital market, is estimated from the following aspects: (1) potential needs for venture capital, (2) the extent of funds demanded on the short-run by entrepreneurs in technology parks, business and university incubators in Slovenia, (3) potential chances for venture capital investments in institutions of innovative environment, (4) willingness of companies within institutions of innovative environment to admit equity capital from the government, (5) interest of companies, which want to get venture capital, that the owner is the state or private venture capital fund, (6) willingness of companies within the institutions of innovative environment to sell the control share of the company to the venture capital funds, (7) needs of the companies for additional knowledge and HR on the fields of marketing, finances, technologies, different connections and acquaintances and (8) desire and interest of companies with venture capital to take over the control share of the company after a certain period of time from the venture capital fund.

4. DEMAND IN TECHNOLOGY PARKS AND INCUBATORS-BASED COMPANIES

4.1. Potential needs for venture capital

Demand for venture capital in companies within institutions of the innovative environment is in Slovenia modest. We are facing already in the start, like on supply side, as well on demand side the same kind of problem. It is difficult to complete a quantity estimate on the basis of qualitative research, as it is methodologically controversial. Thus, we find it appropriate to present the findings in a more descriptive manner. We still aim to quantify the data which have to be regarded as very robust.

There are three university incubators in Slovenia. At university incubator in Ljubljana, the demand for venture capital in the period from 2007 – 2008 is estimated **from 2,5 to 10 mio Eur.** At Primorska university incubator they have started to provide the necessary infrastructure and support and are preparing tender for potential companies in incubator, from this reason the demand for venture capital cannot be assessed yet. In university incubator in Maribor the estimate of demand for venture capital for the future two years is **1 mio Eur**. Technology parks (ŠTP Štajerska, TP Primorska, BSC - Kranj), with the exception from TP Ljubljana, mainly have had no experience with venture capital. However, they are still sure that there is a certain interest for financing investments with venture capital among the companies based at their institutions. In TP Ljubljana demand for venture capital in the near future is estimated to **8 mio Eur**. In business incubators (Murska Sobota, Smartstart) they estimate demand for venture capital from technology-based and high-tech companies from **50 to 300 thousands Eur** per project. The total funds can not be estimated because their plans about the number of companies which may be hosted in the incubator seem to be inconsistent. In business incubator of Murska Sobota they have accomplished analysis of the interest for investments of venture capital and from 34 companies from the incubator and 20 other larger companies only three companies are willing to accept venture capital as the source of financing and to renounce ownership in the company.

The extent of demand for venture capital is difficult to be assessed on a long term. On a short term we estimate that extent of venture capital supply exceeds the extent of venture capital demand. Our interviewees share the opinion, that venture capital demand could be increased by the following intensified processes:

- Entry of venture capital in the seed and start-up phase

- A chance to enter with smaller minimum amounts

- Raising mass-awareness of the interested public (entrepreneurs, consultants, professors) about venture capital in order to reach higher level of understanding the meaning of venture capital, knowledge, which enters companies with venture capital, chances of venture capital withdrawal, chances to take over the control share of the company

- Long term presence of venture capital in companies and cooperation in later phases of financing, when capital is needed for further growth

- Stimulating development – strategic alliances with companies abroad

4.2. The extent of funds – venture capital demand in innovative environment.

In university and business incubators, according to our interviewees, they have assisted together with the two most active venture funds, so that more projects in total value of **18.58 mio Eur** were financed. In three cases investments range between **1,2 and 6 mio Eur**, in other cases investments range from **10.000 to 300.000 Eur** in technology-based and high-tech companies. From this evidence, it is very clear that the average amount for investment is not comparable to the amounts that are more common in the environments with more developed VC markets.

Interviewees emphasize that entrepreneurs are technically well educated and highly skilled, but they do not know enough or do not understand different kinds of financing. Venture capital is not a recognized form of financing in Slovenia. There are not enough positive examples and best practices, entrepreneurs fear to let new owners enter their companies. In incubators and technology parks they have already organized presentations for entrepreneurs.

Annual returns of projects financed with venture capital differ from project to project and reach from 19% to 35%, according to interviewees. There is no evidence of venture capital withdrawals. As possible forms of withdrawal IPO, MBO and M&A and as an average exit period three to six years are mentioned. However, the expected returns are the reflection of respondents' personal opinion rather than more sophistically quantified data.

Incubators have mainly assisted entrepreneurs with business plans, preparing presentations for potential investors and establishing contacts with venture capital funds, searching partners for cooperation while composing final financial constructions of investments. Some incubators offer entire services on this field to their clients.

Some of the projects have not been implemented yet, some have proved successful, and some have failed due to too big investments or too small returns. One of interviewees mentioned, that entrepreneurs are not capable to attract buyers, to make them enthusiastic about their products, to persuade partners for further cooperation. In incubators they estimate, that projects could be more successful, if entrepreneurs would let them be involved with their knowledge and experiences, searching for synergies, network, in marketing and in opening the doors.

4.3. Willingness of companies to admit equity capital from the venture funds, to sell the control share of the company to venture capital funds.

From our discussions with representatives of different institutions we can husk, that comparing to times of three to four years ago, high-tech entrepreneurs accept the fact that they should make big steps already at the beginning to build barriers for competition. This leads to letting fresh capital and new owners in their companies. More and more of Slovenian companies (in the recent six months they report two such companies in the university incubator of Maribor) are seeking venture capital with the funds located outside the borders of Slovenia (Germany, USA). It is not only about money, it is about assisting them while negotiating with potential buyers. The main weakness of Slovenian entrepreneurs seems to be that they fear to think big and to »assure« high returns, demanded by the venture capital funds. We can establish, that it is characteristic for Slovenian entrepreneurs, that they do not want to give up the control share of their company, as they do not understand, that venture capital (depending on the strategy fo a particular fund) can be active in sense of mentoring, discussion partners, door opener, integrator to business networks etc. According to one of our interviewees »it is impossible to integrate the venture capital concept into exceptionally non-entrepreneurial culture«.

A typical technology-based company is not willing to share the ownership, but it is more opened to strategic alliances, especially such which are opening markets and to classic ways of financing. We can say, that in Slovenia, there is a lack of entrepreneurs who would have a aspiration for the fast growth and capital harvesting of their venture. It seem that ambitions of Slovenian entrepreneurs tend to be more in job-creation for them and potentially for their family members, rather than building a company which would in the future have its own trade value.

Our research can be complemented with findings of the researches, implemented in the recent years (Glas et al., 2002, Vadnjal and Glas, 2003), when we were interested in venture capital done in Slovenia. Venture capital has been on disposal in modest extent, formally we have had only 5 or 6 funds, but really successful entrepreneurial projects could enter international capital market, where there were no such limitations. Limitations for growth of venture capital investments are well known (Žugelj et al., 2001), so we have asked entrepreneurs about the returns on their investments. Almost half of them have not thought about it, less as 10 percent have looked for outside investors or they have invested into other companies. Entrepreneurs especially reject the state funds (unacceptable for 31 %, acceptable for 23 %, others would be inconvenient); the idea about private investments is more appreciated (unacceptable for 21 % of SMEs, would not disturb 29 % of entrepreneurs).

It has turned out that some of the factors are typically connected with the level of education. Higher educated entrepreneurs are more opened for external investments. Age of entrepreneur is important as well. Entrepreneurs are proportionally realistic when estimating, which forms of (non-financial) support could be expected from external investors. It is mostly about supporting the market activities and different managerial activities. They do not want to become financially dependent from investors.

4.4. Needs of companies for additional knowledge and HR on the fields of marketing, finances, technologies, different connections and acquaintances.

A huge problem, being exposed by our interviewees is that entrepreneurs, who generally have a very high level of technical-technological knowledge, need help of professionals, who would check for them their new, unproven technologies at the market, and would prepare independent studies about the market potentials. It is a problem how to finance such studies, as well.

Entrepreneurs are aware of the intellectual property rights problems. In Slovenia there is a lack of professionals, who could assist entrepreneurs in this field (it is not only about the procedure of formal application for a patent, it is more about assisting entrepreneurs when deciding about protecting their intellectual property). The best protection before competition is a fast and continuous development, which enables to entrepreneur to be a step in front of competition. However, to be able to understand and perform this, more than just technical knowledge and skills is needed.

Entrepreneurs are aware that success depends on their ability to attract partners, customers, suppliers, from their capacity to make them enthusiastic about their products. There are more and more entrepreneurs, who seek for knowledge and experiences, assistance at marketing. Opening doors and searching for synergies in institutions of innovative environment seems to be more and more important.

Table 2: Stimulative or breaking factors for admission of external capital in SMEs

Factors influencing SMEs actions	**Stimulative (%)**	**Neutral (%)**	**Breaking (%)**
Factors in legal and tax environment			
No tax incentives for investors	5	26	68
High income tax levels on capital earnings	6	28	67
Complex and expensive changes of ownership relations	4	32	64
Factors, relating to possible actions of investors			
Investors want to cash-in profits, although to damage of the company's liquidity	7	21	72
Investors not ready to wait for appropriate returns	5	24	71
Investors want to have for small investment to big control	6	30	64
Factors of managers' actions / entrepreneurs in SMEs			
Entrepreneurs want to have cars, mobile phones and other things at the account of the company	5	35	60
Uncertain entrepreneurs due to weak legal and financial knowledge	5	28	59
Management style of entrepreneur is to do everything alone (»lonely wolf«)	13	28	59
Entrepreneur fears outflow of important information	5	36	59
Entrepreneur does not want to grow at all	8	36	56
Tendency to use accounting to hide profits	9	42	49
Desire of entrepreneurs to keep the life style	17	37	46
Desire of entrepreneurs to entirely control the company	29	21	50
Attitude of companies towards the idea about investment	48	39	13
Obstacles at the financial market			
No real chances for investors to withdraw from the company	4	48	48
Higher return of other financial investments	18	41	41
the level of trust between entrepreneurs and investors	60	23	17

Source: Calculated from Glas et al. (2002), page 26; Glas, Drnovšek and Pšeničny, 2002, page 9

4.5. Interest of companies with venture capital for taking over the control share of the company from the venture capital fund after a certain period of time.

There is no evidence of a single realized exit of venture capital from a company. In one case the exit is planned entirely by selling to the buyer of services, in one case it is planned as MBO, in two cases it is planned by M&A. We have not tracked any trials of the repeated taking over of the control share in the company.

From the character of the Slovenian entrepreneurs, who are enviously keeping their knowledge and ideas, their property, and they do not want to share or admit equity capital in the company, we can derive that if they accept equity financing as a source, they will tend to have ambitions to take over the control share again or to sell their share.

5. CONCLUSIONS AND RECOMMENDATIONS

The following propositions were put to confirmation in this paper: (1) The existence of equity gap is difficult to be proved in Slovenia; (2) The level of knowledge about equity financing is low both among entrepreneurs and professionals who assist and support SMEs; (3) The paradigm that technology parks and incubators can be important source of deal-lows for venture capital investments cannot be proved for Slovenia, and (4) The venture capital market can be improved by government intervention only through simultaneous actions of cash supplies and soft support. From the knowledge and understanding received from the collected date from interviews, all the propositions can be declared as confirmed.

In Slovenia, the VC market is still almost in its nascent or emerging phase. There are few VC funds and their managers, with some exceptions, are still gathering their first experiences in deal closing and in further assistance to management. Entrepreneurs are generally reluctant to engage in equity investments but in some high-tech and innovative start-ups or fast-growing firms they have recognized VC as being the only real option due to the highly risky investments involved.

From the mentioned around 20 VC investments in Slovenia formal equity investment is proving to be a viable financing option for growth-oriented, dynamic entrepreneurs. However, private equity financing is also time-consuming for entrepreneurs. It is almost a prerequisite to have at least two in the entrepreneurial team if a start-up decides for this type of investment. Evidence shows that during the due diligence process and after the actual entry it takes at least one person to co-ordinate outside investors, whereas the rest of the entrepreneurial team has to undertake business operations. It seems that a private equity investment is more valuable than in financial terms in capacity of building up the management know-how that is a prerequisite for the further growth and internationalization of a young start-up. Thus, the most important expectation on the side of entrepreneurs from private equity funds is support in building up the legitimacy of their businesses. Second, young businesses backed by a formal private equity fund have to develop their business philosophy and focus faster than their counterparts, which in return enhances the formation of their organizational structure and culture.

The general opinion of private equity investors is that there are many excellent business opportunities identified by Slovenian start-ups. However, due to the very limited local market,

only start-ups exhibiting a very dedicated growth focus and global reach can be considered for investment engagement. Since previous empirical research on the state of the art of Slovenian small business showed a relative shortage of dynamic businesses in Slovenia, it follows that the scope of private equity financing in Slovenia is quite limited. The second barrier to private equity financing is regulatory. The current business legislation does not promote this type of financing with tax incentives for private equity placements. Further, business legislation regulating management reward systems does not give many alternatives for the exit strategies of formal private equity funds. Together with the underdeveloped Slovenian financial market, the former seriously hinders this type of financing.

Finally, the latest developments in global venture capitalist markets show that the focus of formal private equity financing may shift from first-phase financing to later development stages to finance mostly business expansions, although some funds are persisting with their early stage orientation. On the other hand, financing the early stage companies with lower amounts may be recognized as a niche for potential public fund which is planned by government.

Slovenian social culture is far from supportive for VC investments. It is difficult to bring several Slovenians (outside the family) together to co-operate, team building is therefore a difficult task. Slovenians are not open enough for communication, they do not easily accept other people's advice, and this throws up psychological barriers to the VC culture. In addition, opportunities to earn good returns from stock speculations on the Stock Exchange in the wake of M&A processes are likely to be further limiting the capital amount available for equity investments in new and unquoted SMEs.

The venture capital market is also specific for being small and will remain small on both sides: there is smaller number of entrepreneurial projects and there are smaller amounts of venture capital available. The amounts of money that may fill some new venture capital fund are under question mark. Another problem is seen as a lack of exit possibilities for investors. There is no market of shares in the companies and there have only been a few IPOs since the Stock Exchange has been established. Therefore exiting and harvesting strategies are very limited.

Legislation is another emerging challenge regarding venture capital in Slovenia. There is no attractive tax and other incentive for investors and legislation puts very rigid limitations about investment to banks, insurance companies and pension funds. The process of establishing a new venture in Slovenia is unfortunately still quite complicated and expensive.

The Slovenian government itself has been considering of playing more active role in venture capital market although there have been serious argumentation against active government's intervention on the VC market (Lerner, 2002). A certain amount of funds is planned for investments in new hi-tech start-ups. Evaluating government's progress regarding access to finance appears to be a difficult task. However, the whole bunch of activities offered by the different public bodies in Slovenia show, that there is a strong commitment for positive change towards more dynamic SME finance structure, which is a condition for a qualitative shift in SME sector. The majority of Slovene companies are micro enterprises with only few expressing growth ambitions, which are of course not possible without a stable supply of different forms of finance.

Financial markets have been regulated by governments to prevent different economy shocks on one side, but also to support economic growth. If we agree with the paradigm that growing dynamic enterprises are the most vital part of modern economies, than state with its public players should hand in hand with commercial finance providers enable a really stimulating entrepreneurial environment where finance is probably most important but the Global Entrepreneurship Monitor (GEM) which was first evaluated in Slovenia in 2002 shows that people in Slovenia are not very eager invest equity in companies. Among 34 surveyed countries only China performed worse than Slovenia regarding percentage of GDP invested in companies. A little bit better performance has been shown for non-formal investment of business angels, which rank Slovenia on 23rd place among 34 surveyed countries.

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THEME II

CHALLENGES FOR BUSINESS SECTOR DEVELOPMENT

II-2

Sector-specific perspectives

OPPORTUNITIES AND THREATS REGARDING THE DEVELOPMENT OF THE FRANCHISING BUSINESS MODEL IN CROATIA

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1. INTRODUCTION

Franchising as a way of doing business is often used in economically developed countries, and its use has grown dramatically over the last two decades in both the USA and Europe (Alon & McKee, 1999). A 2004 study of franchising's economic impact conducted by The International Franchise Association showed that the franchise market in the USA generates over $1.4 trillion (i.e., over 45% of total retail sales) with 18.6 million people directly and indirectly employed (IFA, 2004). Research conducted by the European Franchise Federation in 2004 indicated that there were more than 5,500 franchisors and more than 266,000 franchise locations in Europe (EFF, 2004). According to the same research, the USA and Asia have around 4,000 franchisors each.

Franchising as a way of doing business is suitable for two types of companies:

- Those that want to "grow" in a geographical sense and not rely exclusively on their own financial resources. These companies become franchisors and sell the rights-of-use of their established brand names and developed know-how to local companies in targeted areas;

- Those that want to enter certain industries but as a part of bigger systems. These companies become franchisees and buy rights to use established brand names and to use established models for ways of doing business in certain business fields.

The franchising literature indicates the numerous advantages, disadvantages and challenges of franchising from both the franchisor and franchisee points of view. However, there is limited evidence about the status of franchising in Croatia regarding the number of Croatian companies which are part of international franchising networks and the number of Croatian companies which became franchisors together with results of their business.

The present paper discusses issues related to the implementation of franchising business models in Croatian companies, using The San Francisco Coffee House as a referential case. The paper investigates the potentials, barriers and significances of adapting franchising concepts on a microeconomic level.

This study explores the condition of franchising in Croatia, aims to contribute to the body of evidence about Croatian franchising, and contributes to theoretical research on international franchising. Therefore, a number of the stakeholders will benefit from this investigation: managers, investors, potential entrepreneurs, service providers (financiers and advisors), policy makers, and theoretical researchers.

2. BACKGROUND

2.1. Franchising - origin and definitions

The word "franchise" comes from the Norman French word "fraunchise," which was derived from the French word "frank" – free man, free to work something.[1] The English word "franchise" originally was used to describe liberation from any prohibition, permission, or privilege – by which a company is allowed to do or not to do something for which it would normally not have rights.

Franchising is a privilege or allowed right given to an individual or group that allows recipients to do certain commercial activities. It is a way of widening a given business's field, including the right to distribute products and services under a better-known brand name. Franchising can be divided into two main types: product/trade-name franchising and business format franchising. According to Falbe & Dandrige (Alon, 2006, p. 43), product/trade-name franchising is a distribution system in which suppliers make contracts with dealers to buy or sell products or product lines. Business format franchising is a continuing relationship in which the franchisor provides a licensed privilege to do business—plus assistance in organizing, training, merchandising and management—in return for a consideration from the franchisee (Alon, 2006, p. 12). In other words, a franchise occurs when someone develops a business model and then sells the rights for doing business under that model to another entrepreneur, the franchisee. The entrepreneur who sells the rights is the franchisor. The franchisee generally gets the rights to the business model for a certain period and within a certain territory.

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[1] The Random House Dictionary of English Language, Random House, New York, 1973. (*The word frank comes from the word "Frank," which described members of German tribes who lived in Gallia in the 5th century C.E.. In Gallia, which was under the Francs, only they – invaders – had full freedom as well as the ones who were under their protection. In old European law there was an expression "Francus homo" which was describing free citizens)*

2.2. Franchising's advantages and disadvantages

As in any potential business arrangement, the sides involved need to ask questions about the advantages and disadvantages of the nascent relationship. There are numerous advantages for those entrepreneurs who choose franchising as a growth option: Murray (2003, p. 15) has emphasized faster growth, the development of better managerial skills, and benefits that accrue from local knowledge. Other advantages include minimizing business and financial risks to the franchisor, fewer employees in the field and less administration in the main office(s), and the faster establishment of a national image for the company - because of franchise-system growth. As a result, the challenges associated with competition are diminished.

Parivodić (2003, p. 54), states that the biggest disadvantage for a franchisor is the potential loss of the control over the franchise network. Murray (2003, p. 17) states further disadvantages specific to the franchisor: the dangers of franchisees not sticking to the franchisor's standards, the potential for a less profitable business, potential conflicts with franchisees, and lack of trust between the parties. Since the employees have the biggest role in a given franchise's potential for success, another disadvantage is related to the fact that the franchisor cannot influence the franchisee's hiring policies, though some franchisors do mandate (or try to mandate) training and adherence to certain work rules throughout the franchise network.

The franchise relationship would not develop if a potential franchisee did not see advantages to conducting business using a field-tested business recipe and under the known name of the franchisor. Some of the advantages for entering the franchise network from the franchisee's point of view are overcoming shortfalls of knowledge and experience compensated for by training provided by the franchisor, using a successful and established business name and reputation, retaining a certain level of independence as an entrepreneur, and realizing the group benefits of economies of scale (Spasić, 2006, p. 28).

Other authors note additional advantages: lower risk of failure, standardization of product and quality, help in choosing location(s) and other logistical activities, benefits from the franchisor's research and marketing program(s), and some protection from competition.

Thomas and Seid (2000, p. 39) have observed significant disadvantages for franchisees: lowered independence, greater addiction to franchisor's non-elastic franchise system, and unrealistic profit expectations. For some franchisees, an additional disadvantage is the obligatory, continuous coordination of contracts and standards that are prescribed by the franchisor and the franchise system, including those financial obligations which the franchisee has to pay regardless of his actual financial status.

3. ENVIRONMENTAL ANALYSIS OF FRANCHISING IN CROATIA

3.1. The Economic Environment of Franchising

In the beginning of the 1990s, after The Republic of Croatia gained its independence, the Croatian market opened to a great variety of international products and services. Due to the economic growth which began in the late 1990s, salaries have grown appreciably, especially

in the larger cities and in certain other parts of Croatia (DZS, 2006). Salary growth resulted in increased consumer demand for higher-quality world brand names, which were not widely available in Croatia at that time. After independence, the Croatian market became flooded with imported goods of variable quality. The habits of younger Croatian consumers, according to a study conducted by GfK Croatia (2005), changed as a result of this increased supply: international brands became the acquisition target of younger consumers, while older people tended to continue to seek out domestic brands. Inevitably, perhaps, purchasing habits also varied geographically.

Financial institutions in Croatia are mostly owned by foreign banks – around 90% according to HNB (2006) – and many of these acquisitions have occurred in the last few years. Although there are a predictable variety of capitalization options for would-be entrepreneurs, a main characteristic of the Croatian domestic market is the bankruptcy of small entrepreneurs as they struggle to collect their own debts. Although barter is a common fixture of the domestic market (between local companies, i.e.), the international ownership of local banks makes such traditional arrangements problematic.

Creating a vibrant business environment in accordance with the standards of the European Union and with countries embedded in the local market economy is one of the major goals of the Croatian government's economic policies. The Government's dedication to the reform of the national economy can be seen in its desire to attract foreign investment for the development of Croatia's domestic and international markets.

Foreign investments in Croatia are regulated by the Company Act and other legal norms. A foreign investor in Croatia has a number of organizational options available to him or her according to this Act: a foreign investor can invest alone or as a joint-venture partner with a Croatian company or private citizen; there are no constraints as to the percentage of foreign ownership that is possible. In addition, in keeping with the Government's desire for foreign investment, investors can gain access to a number of newly opened markets; entrants can take advantage of a number of incentives, tax benefits and customs privileges that are only available to foreign investors.

3.2. The Institutional Environment of Franchising

Since the concept of franchising is relatively new to Croatia and its inhabitants, it is necessary to stimulate and incentives franchising relationships. Presently (2006), there are two Centers for Franchising in Osijek and Zagreb. Each works with the Croatian Franchising Association to stimulate franchising development in several ways:

- Educating about franchising – The Franchise Center in Osijek is organizing seminars, "Franchise A to Z," in order to educate entrepreneurs about franchising and its benefits;

- Franchising promotion – both Centers and the Association are trying to promote franchising as a way of doing business through local media – interviews, articles in the newspapers and magazines, et al.;

- Creating websites with information about franchising on the Internet – information on the portal with current news;

- Connecting supply and demand between franchisors and potential franchisees – one section of the franchise portal contains offers from franchisors interested in the Croatian market; there are several inquiries each week from potential franchisees;

- Helping domestic companies to become franchisors – The Franchise Center in Osijek, with the help of Poduzetna Hrvatska, organized training for potential franchise consultants who can help domestic companies if they decide to use franchising as a growth strategy;

- Establishing franchise fairs and round tables.

Foreign franchises tend to choose one of two potential pathways into the Croatian market: distribution-product franchising and/or business-format franchising. Larger, better-known franchisors like McDonald's open their offices in Croatia and offer franchises to interested entrepreneurs in order to ensure quality control, while smaller and less-well-known franchisors sell master franchises to local entrepreneurs in order to ensure the benefits of local knowledge and cost savings.

During the last few years, The Republic of Croatia has approved a number of laws which resulted in Croatia's acceptance into the World Trade Organization, CEFTA (Central European Free Trade Agreement); these legal changes have also allowed Croatia to begin negotiations for acceptance into the EU. Nevertheless, there is no specific legal basis for franchising in Croatia. Franchising is mentioned in Croatian trade law (Narodne Novine, 2003), where the generalities of potential franchising agreements are stated, but mention is made in only one article and that mention is very condensed. Therefore, there is no legal standard for the development of franchising and no legal parameters (yet) for franchising agreements: at the present time, business practices on the ground determine the appropriateness of such agreements.

3.3. The Current State of Franchising in Croatia

The first franchise appearance in the Croatian market was credit-card franchisor Diners Club International, which entered the market in 1969. "When the former Yugoslavia collapsed, the Zagreb-based office that had been in existence since 1969 signed a franchising agreement with Diners Club which allowed it to operate under license within both the former Yugoslavia and other Balkan countries."[2] For its successful performance in the Eastern European market, Croatian franchisee Diners Club Adriatic won two awards from its Chicago based franchisor.

Franchises became more the norm in Croatia starting in the early 1990s, when the first McDonald's was opened in Zagreb. "McDonald's expansion into the Croatian market has tended to use two franchising methods: direct franchising and business-facility lease arrangements… Such lease arrangements allow for franchisees to become entry-level franchisees using less capital at the outset."[3]

Other franchisors followed McDonald's lead. One of the relatively new franchising concepts in the Croatian market is the Hungarian company Fornetti, which managed to spread quickly its mini-bakeries business throughout Croatia by using franchising. They were founded in

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[2] Viducic, Lj., Brcic, G. In Alon, Il; Welsh, D. (2001) International Franchising in Emerging Markets: China, India and Other Asian Countries», CCH Inc., Chicago, p.218.

[3] Viducic, Lj., Brcic, G. In Alon, Il; Welsh, D. (2001) International Franchising in Emerging Markets: China, India and Other Asian Countries», CCH Inc., Chicago, p.217.

1997, and today have more than 3000 locations in Central and Eastern Europe (Mandel, 2004). Other international franchises represented in Croatia include Benetton, Subway, Dama Service, and ReMaX.

3.3.1. Data and Trends

Franchising as a business model is still in development in Croatia. In relation to other countries in transition, other emerging markets, Croatia is in the middle of the pack with 126 franchise systems. According to data supplied by the European Franchise Federation, Hungary leads the way with around 300 systems, of which 50% are domestic. Poland trails Hungary with 210 franchise systems (55.7% domestic). Croatia is, as of 2006, ahead of the Czech Republic, which has 90 franchise systems. Trailing Croatia are Bosnia and Herzegovina, Serbia, Montenegro and Macedonia. Slovenia has around 100 franchise systems, although this is a much smaller market. However, the number of franchise systems in Croatia has increased in just the last two years. According to the Croatian Franchise Association, there are approximately 125 (25 of them domestic) franchise systems present in the Croatian market. These systems operate approximately 900 locations and employ almost 16,000 people (Kukec, 2006)

Franchisors in more than 20 industries have chosen franchising as a growth option, with the sales industry and fast-food sectors accounting for more than 20% of the market (Kukec, 2006). Other segments with important shares include the tourist industry, rent-a-car companies, courier services and the fashion industry. The newest franchise systems are being started in a variety of service-sector industries.

Tables 1 and 2 show the most well-known foreign and domestic franchisors in Croatia by industry and number of outlets as of 2007:

Table 1: Foreign franchisors in Croatia

Franchisor	Industry	Number of outlets
McDonald's	Fast food	16 restaurants
Subway	Fast food	6 restaurants
Fornetti	Bakeries	Over 150 locations
Dama service	Refilling toner cartridges	3 locations
Berlitz	Foreign language school	1 location
Firurella	Weight loss center for women	2 locations
Berghoff	Kitchen equipment	3 locations

Source: Round table – Franchising in Croatia EFF/IFA International Symposium, October 24-25, 2006, Brussels

Table 2: Domestic franchisors in Croatia

Franchisor	Industry	Number of outlets
Elektromaterijal	Household appliances' distribution	Over 50 stores
X-nation	Fashion clothes	40 stores / corners
Rubelj Grill	Grill	17 restaurants
Skandal	Fashion clothes	15 stores
Body Creator	Weight loss center for women	4 centers
Bio & Bio	Health food	3 shops
Bike Express	Courier service	1 location
San Francisco Coffee House	Coffee bar	2 locations

Source: Round table – Franchising in Croatia EFF/IFA International Symposium, October 24-25, 2006, Brussels

3.3.2. Barriers to the Development of Franchising in Croatia

During September 2006, The Franchise Center of the Center for Entrepreneurship in Osijek conducted a survey of 50 people, asking what examinees (representatives of banks, entrepreneurs, and lawyers) thought about the barriers facing franchising in the Croatian. Their responses included:

- Laws – there is no legal regulation of franchising in Croatia. The word "franchising" is only mentioned in Trade Law. But, Croatia is not unusual in this respect: only 52 countries in the world mention franchising in any significant way in their legal systems (Zeidman, P.F , 2006). Common or no, however, the absence of clear legal precedent makes it difficult for Croatian lawyers to help their clients, especially during the contracting phase—whether franchisor or franchisee, whether foreign or domestic investor.

- Infrastructure – there is a dearth of infrastructure related to franchising: no banks that will assist franchisors or franchisees, too few educational centers, no franchise consultants who could help potential franchisors in developing their own networks. Banks seem unable to distinguish between start-up entrepreneurs creating footholds in new franchise sectors and franchisees who are entering preexisting, proven franchise systems. There is not enough education about franchising, so even potential franchisors and franchisees do not know where to go to and who to contact if they would like to find more about franchising and how it can work.

- Problems with banks (not familiar with franchising) – banks do not recognize franchising as a relatively safe way of entering into a new business and do not have any specialized loans for the franchising industry. According to a survey conducted by the Franchise Center (2006), some banks' representatives said that they would ask a guarantee for a loan from the franchisor also. Banks are not willing to educate their employees in order to learn about this way of doing business.

- Small market – because there are only 4.5 million inhabitants in Croatia, examinees are pessimistic that the largest franchisors will come to Croatia due to logistical problems: the perception is that it is much easier to open a location in London than in Croatia. Large and famous franchisors are looking on bigger area in sense of population number developing new franchises, and they often resist adapting to local standards and prices. Smaller franchisors that would like enter to Croatia are not as well known to Croatian entrepreneurs and are therefore seldom franchisors of choice.

- Franchising is not a well-known way of doing business – people seldom recognize what franchising is; many think it is connected with insurance. This is the biggest barrier according to the survey because people are not willing to enter into something with which they are unfamiliar. Further seminars and round tables need to be organized in order to educate entrepreneurs about franchising and its potentials and benefits.

Examinees also report that there is an excellent chance for franchising in Croatia, that there is the possibility of high growth in this sector (up to 30%), and that Croatia's membership in the EU will provide the necessary boost to development. This survey showed that although

franchising is not a familiar way of doing business, examinees see a bright future for franchising in Croatia.

According to the above-mentioned survey, there are some identifiable reasons for the relatively slow development of franchising in The Republic of Croatia: entrepreneurial thinking, lack of franchising education, and a weak national franchising association. First, many entrepreneurs would rather own their own companies and have complete "business freedom" than submit to the restrictions they see as related to becoming part of a system – from production and distribution to sales and cleaning of the premises. Second, Croatian entrepreneurs are not completely familiar with the benefits which can be gained by being a member of a successful franchising system.

Both barriers to franchising growth can be overcome by establishing an education system and governmental/financial support for this potentially vibrant business sector.

4. DEVELOPING A FRANCHISING SYSTEM IN CROATIA – THE CASE OF SAN FRANCISCO COFFEE HOUSE

4.1. Background

In the spring 2004, after spending 6 years in the USA, husband-and-wife team Jasmina Pacek and Denis Tenšek returned to Croatia. During their stay in the USA they had gained significant business experience.

Jasmina had worked for several companies: AVL – a company that works with programs for computer design; Northcoast Industries – a fashion store in San Francisco where she started as designer and was promoted to Art Director; and finally Keeco Corporation, which is a leader in house-textile products in the American market. At the same time, Jasmina finished her MFA in Fine Arts and Design at the University of California, where she worked for some time as a teaching assistant. Denis finished his MBA in Business Management at California State University. From 1998 until 2004, he worked in two companies: Tyco Inc. and Brinks Home Security as regional manager. For personal reasons, Jasmina and Denis decided to return to Croatia, to Osijek, where Jasmina's parents were living. Thanks to successful careers and wise investments in real estate in the USA, they returned to Croatia with enough capital to help them in their new start.

After they spent some time in Osijek, they decided to start a new business. While thinking about what they should do, they had noticed that there were many coffee bars in Osijek and that visiting them was part of the life style of the local population. However, all these "bars" offered the same limited product line; they noticed that what was missing in the market was an American-style coffee bar in which most of the offerings would consist of different types of coffee and include the novel (in Croatia) possibility of getting "coffee to go." They decided to adapt this ubiquitous American concept to the local Croatian market. Convinced that the "Made in USA" brand would be positively received in their new market, they named the coffee bar "The San Francisco Coffee House." Jasmina designed a visual identity for their coffee bar, and Denis went about finding proper suppliers of raw materials and finalizing the financial side of the whole project. During the development of the business plan, he traveled

several times to the USA, bringing back suitcases full of coffee mugs, pictures, newspapers, and ideas related to décor.

4.2. Opening of The San Francisco Coffee House in Osijek

They had chosen the location for The San Francisco Coffee House very carefully: They were looking for a location with a minimum of 80 square meters near an area with heavy foot traffic, since their main target market was to be business people. They found an excellent location in the town's center – across from the green market, near three University departments, several lawyers and public notaries' offices – for which they signed a 3-year lease with provisions for extending the lease and a right to pre-emptive purchase in case the owner wanted to sell the premise. After the first few months, they found that their major client markets were students and business people, mainly female in both cases.

The San Francisco Coffee House offers its customers coffee in 17 different latte (with milk) and mocha variants and American-style muffins in several varieties. Coffee can be taken in the pleasant atmosphere of the bar or it can be taken out in "to-go" packaging. In order to adapt to their target market, guests are provided Croatian and foreign newspapers and magazines, have free wireless access to the Internet; the ambience is enhanced by smooth jazz and foreign music from the 70s and 80s.

Today there are 8 employees in SFCH[4], which is managed by Tanja Škaro. The employees are all young people, all without any previous working experience and all of whom have worked in SFCH from its inception. When searching for employees, Jasmina and Denis looked for trustworthy, loyal and honest people. For each workstation, employees have a detailed job description and detailed checklists for each shift and for weekly and monthly routine duties. After employment, all employees passed education for working in bar and their salaries are almost 20% higher those of comparable employees at other local coffee shops.

4.3. SFCH – Creating the Franchise Offer

From the beginning, Jasmina and Denis believed in the success of their idea and in its potential for further growth. Osijek is center of Osijek-Baranja County, which is among the least developed in Croatia[5]. Profitability in this area could be repeated in almost any other location in Croatia. They were sure about this.

Jasmina and Denis talked several times about expanding SFCH by franchising. After they established SFCH, they decided to talk about this idea with consultants from The Franchise Center of The Center for Entrepreneurship in Osijek, which was offering seminars on franchising to entrepreneurs according to the "recipe" bought from the Center for Franchising at The University of Texas, El Paso. Consultants at the Center had a lot of information about franchising and some useful contacts, but they had no practical experience developing franchise networks using existing Croatian companies.

When thinking about the growth of their business, Jasmina and Denis did not want to invest their own money opening other locations in Croatia. Taking advantage of one of franchising's most attractive options, they saw potential in attracting financial investments from

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[4] SFCH – short from for The San Francisco Coffee House.
[5] Singer et al., (2005), Strategija razvoja Osječko-baranjske županije, page 85

franchisees, dedicating themselves to the "core" business while transferring operational business activities in satellite locations to franchisees.

Developing the SFCH franchise was a project that allowed Jasmina, Denis and The Franchise Center to learn together. Since they did not yet have potential investors and had no anticipated time for return on their own investment in franchise development, they tried to lower the cost of franchise entry as much as possible.

One of the first steps they took was to register and protect the name and logo of SFCH, for which Jasmina – instead of hiring a lawyer who specialized in intellectual property rights protection – studied documents and application papers. She did everything on her own and paid only one-third of the costs a lawyer would have charged.

An SFCH franchise offering resulted from the teamwork of Jasmina, Denis and The Franchise Center. They found key elements for the franchise offer they would craft in different ways: by reading franchise literature, by analyzing the franchise offers of competitive companies, and finally by always returning to the SFCH to assure themselves of reliability of concept. They wanted to build a concept which would be not only attractive to the investors, but which would also ensure them a reasonable return on their investments in the development of the franchise even as resources could be allocated to the further development of the core business, quality improvement of the business model, and increasing brand awareness at the national level.

The SCFH franchise offering was the result of several months of work and research: it was intended for towns with more than 40,000 inhabitants or to tourist areas where the native population was quite a bit lower. Franchisees in towns with fewer than 40,000 inhabitants would have territorial exclusivity; in larger towns this could be negotiated. The location of the coffee bar had to be in a town center, near commercial walking zones, shopping centers or similar high-traffic pedestrian areas. Concerning investment level and location size, four models of SFCH franchises were proposed: *beginner, standard, professional & world class.* The level of initial investment in relation to the franchise model varied from €7,000 to €45,000. Monthly royalties paid to the franchisor would range from €50 to €200, depending on the level of the franchise model and the level-of-use of default suppliers for three major raw materials: coffee, flavorings and packaging for "coffee to go." Franchisees were required to use designated suppliers so that the franchisor could control the quality of the product, though not the operations of the independent franchisee. In order to have good franchise-relationship functionality, the franchisor had to have an interest in the franchisee business, which is in the SFCH case based on the rebate system for raw materials since the franchisor is the only supplier to the franchisees.

The franchise package includes education on three levels: the franchisee, the manager, and the servers in the coffee bar. In addition, the franchisor provides initial marketing support to the franchisee by establishing contacts with local and national media and helping franchisees with opening their stores. The initial franchise contract for SFCH is for 5 years with the possibility of prolonging the contract after that period.

4.4. SFCH - Concept Sales

With a developed franchise offer and clear expectations for potential SFCH franchisees in place, Jasmina and Denis started their search for entrepreneurs who would recognize a good idea and its profit potential. During this search, they were trying to minimize their own expenses, so they decided to use a guerilla-marketing approach even as they availed themselves of The Franchise Center in Osijek and the Entrepreneurial Franchise Center Promaturo in Zagreb. In the event that either of the Centers found a franchisee who would sign a franchise contract, that Center would receive certain percentage of the franchise fee as a finders' fee. Jasmina and Denis realized that they did not really have any other choices for attracting franchisees because of franchising's relative invisibility in Croatia. They realized that it would be necessary to educate potential investors about franchising, that it would not be enough just to offer the SFCH concept to the public.

Jasmina and Denis have received a number of inquiries from entrepreneurs throughout Croatia. They have met with several potential franchisees who were extremely interested in their concept; however, even though these were good candidates, they seldom had the necessary financial resources. While trying to aid their would-be franchisees, the couple discovered that there were no specialized financial products on the market for start-up entrepreneurs who wished to become franchisees. Moreover, they found out that the banks had not yet recognized the lower risks of investment associated with start-up entrepreneurs would wished to become franchisees rather than independent business owners.

In September of 2006, The Franchise Center of the Center for Entrepreneurship in Osijek with financial assistance from USAID project "Poduzetna Hrvatska" and with the help of American consultant for franchise business Ilan Alon, Ph.D., held a seminar on franchising for bank representatives. According to research done on a sample of 7 banks,[6] a majority of banks' representatives were aware that there are no adequate specialized financial products for potential franchisees. Bankers explained this inadequacy by stating that there was not enough demand for this type of financial product and that there was no legal basis which would make franchising a safe investment in Croatia. The absence of adequate avenues for financing franchisees inevitably limited the market of potential SFCH franchisees.

4.5. SFCH – First Franchisee

One of the interested franchise candidates with whom Denis had spoken by telephone came one day by car from the Croatian town of Split, almost 700 km away, in order to see the SFCH operation for him. After a whole day of discussion about the business and the potential development of SFCH, Tomislav Kuzmanić went back to Split and, after a few weeks, invited Jasmina and Denis to visit him and to evaluate several potential locations for an SFCH franchise in Split. Jasmina, Denis and Tanja – the coffee bar manager in Osijek and future coordinator of the franchise network – visited locations in Split which Tomislav proposed; they ultimately chose one for which Tomislav soon signed a 5-year contract as a franchisee. The location is in the old part of Split, near the Diocletian palace; it is even larger than the coffee bar in Osijek.

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[6] Representatives of following banks attended seminar: Privredna banka Zagreb d.d., Erste & Steiermarkische bank d.d., Zagrebačka banka d.d., NOA – štedno kreditna zadruga, Varaždinska banka d.d., Hrvatska banka za obnovu i razvoj i Slatinska banka d.d..

Signing this first franchisee meant also finalizing the version of a franchise contract for all future SFCH franchises. Jasmina and Denis had only completed a draft version of the contract, which they had planned to adapt to the specifics of the situation once they located their first franchisee. Since there are no lawyers who specialize in franchising contracts in Osijek and only a very few, all with very limited experience, in Croatia as a whole, they decided to hire Margareta Krivić, a young lawyer and Denis's former schoolmate. From the start, Margareta showed great interest, effort and willingness to learn with them as she investigated this new area of the law. Jasmina and Denis thought that Margareta's dedication and determination would more than compensate for her inexperience, especially given the paucity of legal precedent related to franchising in Croatia. Too well aware of the disordered legal system in Croatia when it came to the franchising and to functional problems in the legal system in general, Denis, Jasmina and Margareta devoted a great deal of time on this first franchise contract so that all parties would have their interests protected.

At the same time, while they were finalizing arrangements with the franchisee from Split, Jasmina and Denis used the offices of The Franchise Center in Osijek to get in contact with several young entrepreneurs from Zagreb. They were interested in opening an SFCH franchise in Zagreb, and they were currently looking for a suitable location for what would be the second SFCH franchise. According to Denis's and Jasmina's estimation, Zagreb could profitably accommodate several SFCH franchises based on the number of its inhabitants.

5. CONCLUSION

Franchising is one of several possible models for business growth and is widely used in economically developed countries throughout the world. Some of the reasons why companies prefer to develop franchise networks rather than creating subsidiaries include lower financial investment, lower risk, faster growth, and local market knowledge by franchisee; and the franchisee's motivation to succeed.

There are few franchisors in Croatia in relation to its neighboring countries although franchising's possibilities are quite numerous. The barriers which the San Francisco Coffee House faced during its development of a franchise network highlight the major challenges which face Croatian companies as they seek to establish their own networks. In sum:

- There is just not enough information about franchising. As a result, entrepreneurial and institutional awareness of franchising is quite low;

- There are no well-established support organizations for the development of franchise networks in Croatia. There are only two Entrepreneurship Centers in Croatia which offer services regarding franchise network development;

- There is no legal regulation of franchising. At the present time, there are no standards for franchising contracts, and there are not enough lawyers familiar with franchising;

- There is no significant support from financial institutions. Banks fail to recognize the relatively lower risk of investment in start-up entrepreneurs/franchisees than in independent start-up entrepreneurs.

At this time, companies in Croatia that decide to develop their own franchise networks should be aware of additional challenges they will face during that developmental process.

The present research is preliminary and exploratory. It is based on an analysis of one exemplary case that underlines several significant issues, but this should be followed by research on larger samples using a quantitative rather than a qualitative approach.

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CHALLENGES OF CONTEMPORARY MANAGEMENT IN SOUTH EASTERN EUROPE: THE CASE OF ALBANIA

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1. ALBANIAN ENTERPRISE MANAGEMENT, PROBLEMS AND PROSPECT

1.1. Introduction[1]

What is management about? There are a lot of books, studies and papers really preoccupied to give the answer. But, I would like to refer to a very interesting book written by PRIOURET, R[2]. in French (1968) "*Une fois défini l'environnement et l'état de guerre économique, alors, mais alors seulement, on peut essayer de préciser ce qu'est le management. Il est tout simplement la mise sous tension rationnnnelle de l'ensemble des elements qui composent une enterprise. Il se procede donc comme un ensemble de règles élémentaires qui procèdent du simple bon sens…Le management est action réfléchie. Sa demarche est dialectique. Il oscille perpétuelle entre deux contraires, donc il faut faire la synthèse difficile, entre deux dangers opposes dans lesquels il faut éviter de tomber*".

The management concept is now more familial for the countries via transition - integration to EU. But if this concept continues to be more important in the global framework, on the South Eastern Europe (SEE) countries it needs to overcome a lot of barriers and to face different challenges. In this context, the paper has focused on the truth tensions of enterprise management in South Eastern Europe (SEE), particularly in Albania. If the management is considered important like the division of labour (TAYLOR), the management "know-how" is the best key to win in the "economics' war". Besides the general progress of the economic trends in SEE, is not very sufficient to support sustainable growth and environmental challenges. In fact, the progress of institutional reform and the business environment indicate that contemporary management needs more attention. On the other hand, management culture and business ethics depends strongly on the society and its evolution.

In general, the Albanian economy like other SEE countries entered currently as part of an ongoing macroeconomic growth. But, the Albanian business environment continues to be difficult, complex and is often characterized by inconsistent application of law and regulations. There are evident the lack of technology, experience, organization and structural

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[2] PRIOURET, R.; "La France et le Management", DENOËL, Hommes et Thechniques, Paris, 1968.

problem inside of enterprise, problems with the bad loan and the weakness axes of credit, the role of entrepreneurship and its management culture, etc.

Through this paper our aim is to analyze two directions:

- First, specifics of Albanian enterprise management: target, barriers and prospect to respect economic ethic.
- Second, some aspects of the Albanian managerial education (graduate and postgraduate degree): the case of Agricultural University of Tirana (AUT).

1.2. A short view of Albania's macroeconomic situation

After almost half a century of an extremely centralized government and the economic collapse, Albania started on a path of market economy in 1992. The economic regime before 1991 consisted of the most extreme model of centralization and governmental autarky, followed by a weak and inefficient economy. Since 1992, a significant progress has made way during this transition. The results are related to the application of macro and micro reforms whose aim is to apply market. The development of the Albanian economy continues to be in line with the objectives of the strategy for the economic development of the country. The Albanian economy grew by 6.0 per cent in real terms. In fact, since the decline of the communist regime in 1990 the Albanian economy has noted significant changes, which have resulted by the application of the structural reforms. Trade has been liberalized. The privatization of small and medium enterprises has been completed and only a few enterprises in the sectors of heavy industry, mines, metallurgy and the services sector remain yet to be privatized. The private sector's share of GDP has been risen from 5 percent in 1990 to about 75 percent in 2002. The change of ownership from state to the private sector is expected to result in better management and productivity of enterprises. One of the most important changes was the beginning of privatisation of state properties and the passage of owning rights in favour of individuals, etc. In spite of that, almost the majority are privatised and some progress is noted in structural reforms and large-scale enterprise privatisation. But the progress towards establishing a functioning market economy and sound legal frameworks has been hampered by continuous internal instability and corruption[3].

Despite the significant changes of the privatisation way, many problems remain very important for Albanian economic growth. They are related to different factors, particularly:

- **Social and economic conditions**

The socio-economic development experience in Albania during the years of transition (shifting from the communist regime to market economy) has noted significant changes in general. But, despite some improvements in the economic performance Albania remains one of the poorest countries in Europe with GDP per capita at around 2000 USD. There is a lot of inequality in the national distribution of incomes[4], and many social and economic problems.

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[3] A severe socio-economic crisis in 1997which led to the collapse of the institutional order was a serious setback to the reform process. Un other dramatic situation was related with the Kosovo crisis in 1998-1999.
[4] Albania is involved in the framework of the Poverty Reduction and Growth Strategy with the assistance of the World Bank and IMF in fall 2001.

- **The trend of economy growth and the change of economic structure**

According to the statistics data the Albanian economy entered the year 2006 as part of an ongoing macroeconomic consolidation process. It is estimated to have grown by 6 percent in real terms with a controlled inflation around 3 percent. Albania has diverted from industry to services. Within the industry, construction has had the highest growth, while weight of agriculture has been reduced considerably because of several factors, including land reforms and migration. The economic growth during these years has had a considerable support from remittances from migration and a number of difficulties to identify sources from informal and international activities.
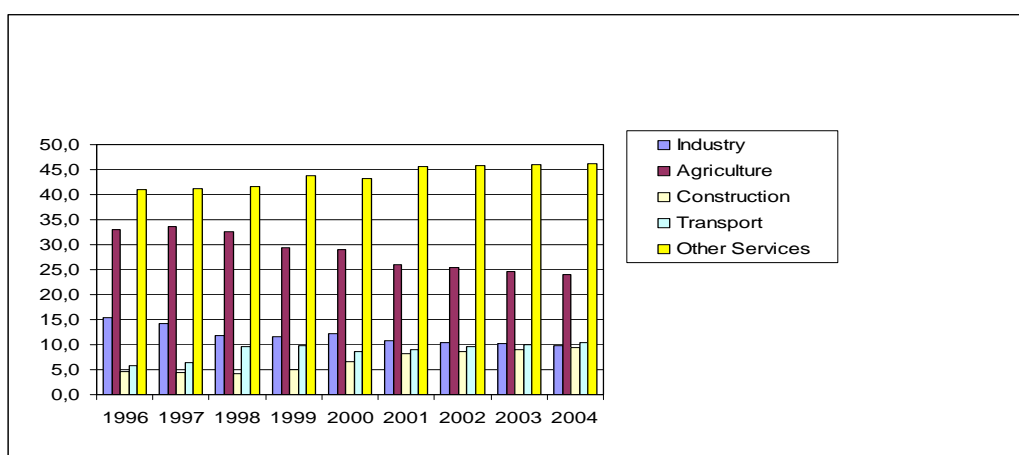
Figure 1.   *The structure of Albanian GDP in years, according the source of Macroeconomic Department, Ministry of Finance, 2005, Tirana.*

The quick growth of the Albanian economy during the last years has been supported by the agriculture, industry and construction sectors, where the value added was increased more quickly than the general average. But the structure of the Albanian economy is characterized by a strong polarization between the traditional sectors such as agriculture and services sector. Although the increase by 1.4 % in structure during 2004, industry continues to be less developed (its weight reached 10%). Services represent the biggest sector of the Albanian economy and during the years 2003-2004 its weight reached in 53.7% of the Value Added. Agriculture has given a solid declining contribution in the economic growth (out of 1.9% in 1998 to 0.5% in 2002, with a 1.4% jumping in 2004). The most dynamic activities (transport, communication and other services, mainly the financial ones) in the services sector have provided a stabilized support to the economic growth.

Table 1 The main economic indicator during the period 1999 - 2005

	1999	2000	2001	2002	2003	2004	2005
Real growth of GDP (in %)	8.9	7.7	6.5	4.7	6.0	6.0	5.5
GDP (in current prices, in millions of USD)	3548	3694	4102	4497	5702	7581	8379
GDP per Capita (in USD)	1052	1086	1329	1460	1833	2434	2550
Number of employed (in thousands)	1081	1068	1065	921	928	917	931
Unemployment rate (in %)	18.0	16.9	14.6	15.8	15.0	14.6	14.2
Inflation rate in percentage (y/y)	- 1.0	4.2	3.5	1.7	3.3	2.2	2.0
Budget deficit (with grants, as a % of GDP)	- 12.1	-8.2	-7.9	-6.6	-4.9	-4.9	-3.8
Public debt (as a % of GDP)	69.7	71.3	66.8	65.1	60.7	55.3	54.9
External debt (as a % of GDP)	- 32.3	29.4	25.8	23.4	20.7	17.8	16.8

Source : Institute of Statistics, Ministry of Finance, IFM estimates and Bank of Albania

- **Incomplete structural reforms and institutional weakness**

There are a lot of difficulties to continue the strategic privatisation. If almost of small and medium enterprise are privatised like the agro industry sector, the process is with a lot of failures for the strategic enterprise (the case of Albtelecom, Savings Bank, etc.). Also, the right to property is legally guaranteed but remains ill defined due, inter–alias, to incomplete land registration. This leads to frequent disputes and constitutes a serious impediment to the creation of the function property market-including a land market-which, in turn, discourages investment and holds back the development of agriculture.

- **Strong handicap heritages by the communist regime**

Poor physical infrastructure, including transportation, communication, power and water shortages with the consequences on business and economic development are inherited by the communist past. This point is the most significant thing that needs to be overcome in order to have better management for the new enterprises and the evaluation of work.

- **Underdeveloped financial instruments**

During the transition process significant changes in the financial and banking system have been made. The new bank is creating and credit to domestic economy has recognized adequate development. Only for the period 2001-2002, the new credits extended reache to lek 103,2 billion. This means that the annual average lending for the recent two years is five times more than in the period of 1993 – 2000. Besides, the expansion of micro credit schemes and non-bank institutions is another useful development with the concrete issues for economic growth. Micro credit schemes have a priority to rural areas and to small businesses.

The number of new bank is biggest and the credit to enterprise[5] continues to growth, particularly in agro industry sector. But, the Albania's banking sector continues to be the least developed in the region. A "*culture of banking*" does not currently exist and many citizens keep saving under their mattresses rather than in banks. Moreover, the Tirana Stock Exchange is only formal and non functional, except for the circulation of treasury bills. The Albanian enterprise are not yet prepared to be listing and to use this important place for their needs of financial capital.

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[5] According to Bank of Albania statistics, the ratio of private sector lending to GDP is only 7,2 % which is similar to lending in Romania but much less than in other nearby countries.

Table 2 Albania intermediation indicators over year

Indicators[6]	1994	1995	1996	1997	1998	1999	2000	2001	2002
Time deposit/GDP	17.0	21.4	15.3	25.9	29.4	32.7	33.2	36.4	40.1
Domestic credit/GDP	13.4	17.7	26.0	27.5	28.2	30.4	30.6	32.5	35.1
Credits to the private sectors /GDP	3.8	3.7	3.9	3.8	3.2	3.6	4.5	5.9	7.2
Credits to the private sectors/Time deposits	22.5	17.2	25.3	14.6	11.0	11.0	13.6	16.1	17.5

Source: Bank of Albania, Annual Report 2002, Tirana, 2003.

- **High level of shadow economy and corruption**

According to Schneider's (2002) estimation method, the size of Albania's informal sector is comparable to those in Lithuania (30,3 %), Croatia (33, 4%), Bosnia and Herzegovina (34,1 %), Romania (34,4 %), and Bulgaria (36,9 %). From official and non-official sources it is estimated that around one-third of total economic activities in recent years are informal. The large evasion fiscal has also demonstrated it.

Reform of tax collection, which contributed to an increase in tax revenues, has progressed significantly, but the fiscal deficit remains high. According to EBRD, 2002, the average bribe tax as a percentage of annual firm revenues in Albania is increasing from 1,7% in 1999 to 3,3 % in 2002 ranging the country in the top list of 26 transition countries, unfortunately! "Pervasive smuggling, underreporting on invoice, falsification of balance sheets" (Olters, 2003) continue to be very critical problems on one hand for the public budget, on the other hand for the development enterprise. The combination of low revenue collection, average tax rates and high "tax bribes" are the significant factors of the large shadow economy in Albania. Consequently, this is a negative indicator to discourage the development of private enterprise.

- **Low level of foreign investments**

Albania is regarded as a country with low barriers to foreign capital and direct investment. But in fact, the Foreign Direct Investment (FDI) in Albania continues to be low in comparison with the countries in Balkan region. These are some reasons about limited FDI investment: insecure investment environment, technological factors and poor infrastructure, heavy administration procedures and the corruption in the public administration.

- **The regional and international context**

Since 1999 Albania has been following the strategies of the Stability Pact to help boost trade, support private sector economy and attract foreign investors. Albania's accession to the WTO in 2000 as well as the signing of bilateral trade agreements with 60 countries shows that following this structure is being provided successful. Looking ahead to next year, Albania is sure to see the signing of the Stabilization and Association Agreement with the EU.

From the geographical viewpoint, the European Union remains the main destination of Albanian products, occupying 88 percent of total exports. Sales in European markets have recorded an annual growth of Euro 30 million or 7 percent against the previous year. However, this market has lost terrain in favor of market extension to the region countries.

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[6] Note: "*Time deposits*" include time deposits in domestic currency and foreign currency deposits.

Exports with region countries of the South-eastern Europe, with which Albania trades under free trade agreements, have increased by 19 percent compared to the previous year, extending the Albanian export market in this area from 8.5 to 9.2 percent of total exports. Kosovo and Macedonia represent the largest markets for exporting Albanian products.

Albanian economy development has also reflected the impact of international factor influence, particularly the impact of changes in regional area and more. Despite the very low competitive skills, Albania has played an important and constructive role towards regional stability and co-operation, including through active participation in the Stability Pact for SEE. The stabilization of Albania's budding market economy, and more specifically the successful implementation of reforms in investment and trade policies, is the result of following Stability Pact measures and the main target to realize the economic and commercial integration with EU. On June 13, 2006, Albania signed the Stabilization and Association Agreement (SAA) with EU.

Albania is focusing on increasing their local production levels. Currently the major industrial exports are textiles and footwear, asphalt, metals and metallic ores and crude oil. There are also the opportunities in the agribusiness sector (agriculture provides more than half of the GDP). If at the beginning of the transition process many specialized workers left the country, now more Albanians are returning home to invest in their native country. Most are putting their money into the tourism and construction sectors, etc.

Table 3 Albanian Export - Import during the period 2003 - 2005

Export:	Share on total export			Import:	Share on total import		
	2003	2004	2005		2003	2004	2005
EU countries-15	93.3	89.9	88.0	EU countries-15	78.2	65.0	60.4
Italy	74.9	73.0	72.4	Italy	38.1	32.6	29.3
Greece	12.8	12.0	10.5	Greece	24.2	18.6	16.6
Germany	3.4	3.1	3.3	Germany	6.3	6.2	5.4
SEE[7]	4.0	8.5	9.2	SEE[8]	14.7	12.8	14.8
Former Yugoslavia	0.6	0.4	0.8	Bulgaria	2.9	2.0	2.8
FYROM	0.7	1.2	1.6	Bosnia & Herzegovina	0.1	0.0	0.1
Kosovo	1.7	4.5	4.1	Croatia	1.7	1.3	1.2
Other countries	2.7	1.6	2.7	Serbia Montenegro	0.5	0.6	0.6
x	x	x	x	FYROM			
x	x	x	x	Romania	0.9	0.4	0.7
x	x	x	x	Turkey	7.5	7.1	7.5
x	x	x	x	Russia	2.8	2.8	4.1
x	x	x	x	Ukraine	2.5	2.5	2.9
x	x	x	x	Other countries	7	22	25
Total	**100**	**100**	**100**	**Total**	**100**	**100**	**100**

Source: INSTAT, 2006.

1.3   Management Enterprise, Entrepreneurship Development and SME Support

The transition from centralized economy to free market economy created the space for the setting up and development of enterprise in Albania in different mode from the past of the socialist enterprise. In contrast with many central and Eastern European countries, which

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[7] South Eastern European countries
[8] South Eastern European countries

inherited a considerable development of the small private sector before transition period, there did not exist any form of this sector in Albania, and moreover it was prohibited by law. By consequence, the country began market economic reforms from an extremely centralized economic system. As elsewhere in Eastern Europe, a significant decline in production characterized the initial phase of transition. The development of enterprise respecting market rules in Albania is considered like an important axe of the national economy. The dynamic private sector, especially the SMEs, both those that have been established since the fundamental political changes and those that are the results of the privatization process, have been considered by the Albanian Government as a priority of the transition reforms since 1992.

The transition process started with a sensitive increase in the number of small enterprises by the end of 1992 and beginning of 1993, when many trading, transport, construction and agribusiness enterprises were transformed into private property. The significant changes of enterprise's sector were interrupted by two crises, respectively by the pyramid schemes in 1997 and Kosovo's crises in 1999. During those crises the activities of a lot of new enterprises were closed with a negative effect on GDP growth. On the other hand, in compliance with the Law, which allowed the private activity, the Albanian entrepreneurs started private activities first as temporary employees and later as self-employed. The development of entrepreneurship was followed by the employment of other family members or relatives. As business activities became larger, many of them dropped the links with the state and dedicated themselves to the private activity. Business growth brought about the need to employ personnel from outside the family. Albanian government has pursued a large number of reforms in order to encourage further business activity. These reforms cover corporate law, transparency, SMEs development and privatization issues.

The support for the enterprise management continue to be a central key for economic reform in Albania.

According to the ***Structural Survey of the Enterprises*** realized by INSTAT some specifics for Albanian enterprise development are the following (see also the table):

- The enterprises with 10 and more employed dominate the Albanian economy. Enterprises with 10 and more employed were most dominating in Industry, Construction and in Transport & Communication. More than 90 percent of the total enterprises were enterprises with 1-4 employed but their turnover reach only to 24.3 percent of the total turnover. The small enterprises are dominant in Service Producers.

- 63.7 percent of the turnover came from Service Producers, while Industry has 40 percent of the employed.

- 48 percent of the total investments were in Industry. Only during 2004, 54.2 milliard leks were invested. 31 percent of the investments were in construction and 35 percent in installations, machineries and technical equipments.

- The enterprises with 5 or more employed in Construction and Trade have increased 43 percent their turnover from 2003 to 2004. All the main indicators show increase from 2003 to 2004. The number of enterprises has increased 2661, especially in enterprises with 1-4 employed and the number of employed increased with 9660. The turnover is also increased. Investments increased from 2003 to 2004 with 2.6 billion leks. The

investment per 1000 leks of turnover varied from 114 leks for 2002, 113 leks for 2003 to 102 leks for 2004.

- The rate of creation of new enterprises differs with years. In 1996 it was characterized by rate of 26 percent. After the period of 1996 and on, it is a more stabile process with an average rate of almost 19 percent in the creation of new enterprises. The assessment of data regarding the number of registered enterprises and the presently active ones, suggests that the level of enterprises that cease to exist is approximately 63 percent.
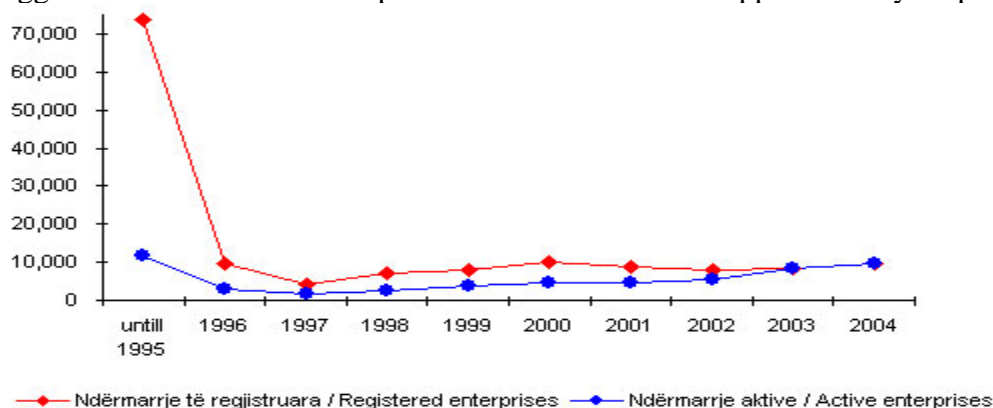
Figure 2: registered and active enterprises

Source: INSTAT, Tirana, 2005.

- Another characteristic of enterprises is their concentration on geographical areas. Considering the migration of population (according to the results of the census in 2001), we notice that 44% of the population and 60% of the economic enterprises have been concentrated in 9 districts of Albania. The prefectures, which indicate the greatest number of closed enterprises are: Tirana, Vlora and Fier. In the structure of enterprises according to the economic activity, the majority of enterprises carry out the trade and service activity and those sectors represent about 73 percent of registered enterprises. This structure was almost similar for each year.

Table 4 Some indices for the Albanian enterprises (According the size groups of employers)

Number of enterprises	Total	1 - 4	5 - 9	10 - 19	20 - 49	50 +
Year 2001	35,521	32,616	1,697	617	297	294
Year 2002	36,248	33,163	1,775	585	373	352
Year 2003	36,005	32,761	1,856	651	426	311
Year 2004	38,667	35,006	1,860	906	559	336
Net profit/loss (million leke)						
Year 2001	29,739	16,103	4,149	2,646	1,876	4,965
Year 2002	33,952	17,092	2,920	2,404	2,476	9,060
Year 2003	44,953	16,627	4,733	2,364	2,777	18,452
Year 2004	58,263	16,965	3,928	3,951	4,663	28,756
Value added (million leke)						
Year 2001	81,043	23,013	8,402	5,816	6,293	37,519
Year 2002	97,910	24,264	6,959	5,917	9,439	51,331
Year 2003	121,783	24,956	9,122	6,845	10,672	70,188
Year 2004	139,650	26,231	8,091	9,744	15,192	80,392

Source: INSTAT, Tirana, 2005.

Also, the active enterprises that are under VAT during 2005 are 8779. Compared with 2001 this number is increased 16.9 percent and compared with 2004 the increase is 2.9 percent. The

sales for all economic sectors have been increased about 62 percent compared with 2001 and 16 percent compared 2004. We notice that the sales index in 2005 had a considerable increase compared with 2001 in the Trade, Hotels and Restaurants sector with about 72 percent, in the Industry sector about 51 percent, in the Construction sector about 63 percent, and in the Transport & Telecommunication sector about 47 percent. But according to businesses themselves, the economic activity in recent year (2005) is contemplated to have undergone a more sensitive deterioration. Such phenomena are a logical consequence of the electricity crisis our country was faced with during that period.

Table 5 Basic data for all Albanian market producers, 2001 - 2004

Variables	2001	2002	2003	2004
Number of enterprises	35,521	36,248	36,005	38,667
Annual average number of employed	141,121	146,230	147,633	157,292
Annual average number of employees	97,897	102,706	104,018	111,580
Number employed yearend	140,120	146,152	149,731	159,181
Number female yearend	37,721	46,252	49,382	50,573
Number self-employed yearend	43,331	43,447	43,345	46,203
Number employers yearend	96,789	102,705	106,386	112,978
Income statement: (million leke)				
From Turnover	322,623	388,235	456,751	529,087
From Capitalized production	2,822	1,738	3,642	3,821
From Change in stocks of work in progress, finished goods and work on contract	889	930	1,348	-280
From Other income	13,448	13,441	12,933	12,386
Total income	339,782	404,344	474,674	545,014
Costs for: (million leke)				
Raw materials and consumables	126,921	153,610	174,535	193,852
Goods for resale	125,554	145,135	170,156	203,726
Personnel costs	27,172	31,353	35,188	38,419
Wages and salaries	17,410	20,199	23,135	25,493
Other payroll costs	3,556	3,945	4,076	4,045
Social security costs	6,206	7,209	7,977	8,881
Other costs	30,396	40,294	49,842	50,754
Total costs	310,043	370,392	429,721	486,751
Net profit/loss (million leke)	**29,739**	**33,952**	**44,953**	**58,263**
Total investments (million leke)	55,874	44,369	51,570	54,189
Buildings	7,513	3,194	9,214	6,015
Constructions & installations	14,711	9,939	9,789	16,507
Machinery & equipment	21,736	24,091	19,124	18,798
Means of transport	1,837	2,834	7,097	5,133
Land	1,511	1,256	2,056	3,246
Others	8,566	3,055	4,290	4,490
Macro-economic variables (million leke)				
Production value	207,964	251,520	296,318	333,502
Intermediate consumption	126,921	153,610	174,535	193,852
Value added	81,043	97,910	121,783	139,650

Source: INSTAT, Tirana, 2005.

1.4   Ethic Management: the challenges to face in the future

The "Six Pillars of Character" developed by The Josephson Institute of Ethics include: "*Trustworthiness: honesty, integrity, promise-keeping, loyalty; Respect: autonomy, privacy, dignity, courtesy, tolerance, acceptance; Responsibility: accountability, pursuit of excellence above; Caring: compassion, consideration, giving, sharing, kindness, loving; Justice and fairness: procedural fairness, impartiality, consistency, equity, equality, due process; Civic virtue and citizenship: law abiding, community service, protection of environment*".

If we can face the above pillars with the reality of ethic management of enterprise via transition process isn't easy.

First, we cannot analyse the ethic management particularly if we don't take in consideration enterprise management in general. What problems we notice during the transition process for an efficiently management enterprise? Let's note some more important arguments that we notice in the Albanian case:

- The impact of interior change of enterprise (see the schema below);

Enterprise interior changes		
Identification of market	**Determination of objectives**	**Identification of structure costs**
• Demand level	• Property structure	• Raw material
• Product type	• Relationship with the market	• Labor
• Quality characteristics	• Employer number	• Energy
• Price	• Confidence	• Package
• Adjustment manner	• Relationship with the financial and bank system • Long term strategy of development	• Others

- The endogenous product factors (technology, political economy of regulation, trade policy, etc.);
- The effect of production variables like value added, sales, employment, capital, costs of raw materials.
- The market share as well as significant factor of efficiency enterprise (weakness with the marketing component);
- The privatisation process;
- The domination of SMEs;
- The degree of the use of the financial tools in management process**.** One of the real problems for enterprise efficiency in different sectors is to include better knowledge of the management and administration. Where to find the capital? In what way are the investments financed? Continue to be really preoccupant questions.
- The lack of culture management about insider and outsider ownership;
- The corporate governance statutes were vague
- An incomplete framework law about the enterprise and its linkage with the others actors inside and outside

- The weakness of banking and financial system to support the transforming enterprise and the growth;
- The creation of new enterprise. In addition to the privatisation process, in the Albanian case, this process is stimulated also by the emigration[9]. Although most emigrants worked illegally and had part – time, low-skilled jobs, the majority found the overall experience positive and the skills and earnings they acquired abroad have contributed to establishing businesses upon their return[10].
- The relationship with the public administration;
- The degree of integration vertical is very low or inexistent;
- The collaboration with the foreign and the situation of export - import.

The lack of business ethics and the correspondent problems have been influenced by a lot of factor in Albania as follows: enterprises are in general very small and very diversified; attention for the client is very low; lack of business culture in the Albanian mentality; lack of honest competitiveness. Economic development of Albania towards free market economy brought in increase of production competition as well as unfair competition. One of its form is the falsifying of domestically produced products that have a good name in the market. This phenomenon is more accentuated in food industry. On the other hand we notice that the entrepreneurship things more for the maximum profit that for the client, the level of formation is low. There are difficulties in managing environmental issues tempts for many enterprises to under manage and neglect necessary pollution control and environmental protection. There are also enterprises that do not take care of the environment like a serious risk. The level of informal economy and corruption is high. Consequently, the level of social responsibility; employment conditions and insurance professionals are in lot of case problematic. Also we can notice a lack of responsibility in business regulation (not respect of legal accountability).

Some opportunities and handicaps for the ethic management application in Albania

Opportunities	Handicaps
- New regulatory reform for business environment	- Weak role of the institutions
- Privat sector development	- Weak local administration
- Enterprise spirit	- Marginal financial ressources
- More conformity of the environment for the business	- Weak culture
- Continuation of the trade liberalization	- Mentality
- Existence of Taks Force	- High informal production
- Improvement of linkage with financial system bank	- High level of corruption
- Professional training and HRM	- Level of education
- Transparency	- Quality management, control and audit
- Collaboration with the foreign investment	- Customs procedures
	- Tax administration
	- Land and construction permits
	- Sector licensing

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[9] According the rapport IFM, July, 2003, "*emigration of Albanian nationals since 1990 of some 500 – 600000 leaving the country amount to a considerable demographic upset. This corresponds to more than 15 % of the population as a whole and more that 40 % of the population aged 19 – 40 years. Still some20 – 40000 Albanians per year leave even if this is on the decrease. Italy and Greece remain the top destinations for Albanian emigration. Italy is hosting between 100 and 150000 emigrants whereas Greece some 350 – 400000 emigrants.*

[10] Kula Dh. ,Mançellari A., Pappanagos H., Qirici S. and Sanfey P. in their research *The causes and consequences of Albanian emigration during transition – evidence from micro data,* 2000, had emphasis that majority owners believe that an emigrant has a better chance to establish a business than a non –emigrant does.

The new managers take more attention about ethical problems. A very interesting and unique case still now is the example of 2K Group, Albanian company that has on line the below ethic code:

Ethic code for 2K Group sh.p.k
We need to pay attention on interest conflict and we must move the conflict and manage it in order to shift the loss;
Not profit without permit; NO bribe!
We must use the firm's asset only with authorization;
No distribution of confidential information;
Equal opportunities inside the company for everybody;
Honest competition
We must take care for environment impact and secure technical rules for every business decision;
The most important asset is the staff;
All employer must respect;
We should always help each others;
No insider trading !

A review of ethic management principles suggests that SEE's enterprises need to take care of this argument more. In this frame a great attention should be paid to: the improvement of economic, institutional and legal framework environment for enterprise support; enforcement of management culture; training program enterprises to understand the basis of ethic management. The use of tools such as Public-Private Partnerships can be really valuable. In bringing the public and private sector together only the management skills of the business community will create better value-for-money for taxpayers and lead to more sustainable state finances.

The ethic management must be an important criterion to improve the climate for business, investment and employment; to attract and encourage private investment; to ensure private sector involvement in the reform process and to realize the implementation of policy reform.

In conclusion, we would like to keep in mind two current characteristics of enterprise management in Albania that need the respect of ethic management imperatively: from a majority commercial business during the transition process, currently we can notice the shift to productive business. Step by step, we can notice more cases in which the propriety is divided from the management. We can conclude also the imperative to overcome some handicaps in order to improve the conditions of effiency enterprise as well as a special challenge for economic growth and the progress in the future.

2. ROLE OF MANAGEMENT EDUCATION IN AUT

2.1. Place of managerial courses on curricula of AUT

The Agricultural University of Tirana (AUT) is one of the best representants of the Albanian public universities on education and research. During a 55 years experience, AUT is an academic and research unique center really important that continue to contribue for the graduation and postgraduation, training and extension in the area of Albanian agriculture. It is also the first university center. They are about 7000 students and 250 academic staff, also 250 administrative and supporting staff.
AUT has three faculties: Faculty of Agriculture with 10 departments issuing 10 diplomas, Faculty of Forestry Sciences with 2 departments issuing 2 diplomas and Faculty of Veterinary Medicine with 3 departments issuing 3 diplomas.

Since the beginning of the transition process the important restructuring curricula have been applicated. Soon after the Bologna Declaration, AUT started again its restructuring according to the new rules. But, the new reality of agrarian situation, its obstacles and opportunities and on the other hand the high education reform, have conditioned the demand to adopt more carefully the combination of managerial skills with the specialization of the students. This fact is argued by the position of management matter on different diplomas. The place of management mater is argued also by the challenges of concurrence and the needs of market economy. We can illustrate a significant example: the growth of student's number that have studied on agrarian business management.

At AUT there are operational also postgraduate schools. They have been established in compliance with Law on Higher Education in the Republic of Albania and Regulation of MES. At AUT there are operational different postgraduate schools (see the schema below). The managent matters take also an important ration.

```
┌──────────────────────────────────────────┐
│       AGRARIAN ECONOMY SCIENCES           │
└──────────────────────────────────────────┘
                ┌────────────────────────────────┐
                │   Agri-business management      │
                └────────────────────────────────┘
                ┌────────────────────────────────┐
                │   Economy and Agrarian Policy   │
                └────────────────────────────────┘
┌──────────────────────────────────────────┐
│          AGRONOMY SCIENCES                │
└──────────────────────────────────────────┘
                ┌────────────────────────────────┐
                │ Plants genetic improvement &    │
                │ Crops seed and seedlings        │
                │ production                      │
                └────────────────────────────────┘
                ┌────────────────────────────────┐
                │          Horticulture           │
                └────────────────────────────────┘
┌──────────────────────────────────────────┐
│      ANIMAL HUSBANDRY SCIENCES            │
└──────────────────────────────────────────┘
                ┌────────────────────────────────┐
                │ Economic and Technical          │
                │ Modeling of Livestock           │
                │ Production Systems              │
                └────────────────────────────────┘
┌──────────────────────────────────────────┐
│          FORESTRY SCIENCES                │
└──────────────────────────────────────────┘
                ┌────────────────────────────────┐
                │   Forest Ecological Management  │
                └────────────────────────────────┘
                ┌────────────────────────────────┐
                │        Wood Technology          │
                └────────────────────────────────┘
┌──────────────────────────────────────────┐
│       VETERINARY MEDICINE SCIENCES        │
└──────────────────────────────────────────┘
                ┌────────────────────────────────┐
                │       Veterinary medicine       │
                └────────────────────────────────┘
┌──────────────────────────────────────────────────┐
│ Agricultural Management & European Studies        │
└──────────────────────────────────────────────────┘
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Figure 3:Ppost graduate studies

The relation between AUT and enterprises is considered also a strong bridge to consolidate the management skills that students have learned at university.

Another component is the National Center for Professional Training in Agriculture. This is a new component of the organizational structure of AUT. This center supports the needs of the employees for professional formation and training in the area of agriculture, forestry, food and environment.

The creation from the AUT students themselves of the team of Student on the Free Enterprise (SIFE) from 2000 and their serious participation on the national and international competition is also a demonstrative argument for the appreciation of management concept and the entrepreneurship. The project developed by the AUT students are very different and interesting as like as the project for "Cheese technology", "Wine cords", "Goats dairy products", "Medical plants", "1 hand, three forest", etc.

2.2. Some result of the project "L'intention entrepreneuriale des étudiants Albanais".

Last spring (2006) the students of AUT were involved on the project "*L'ntention entrepreneuriale*" organized by Centre d'Etudes et de Recherches Apliquees à La Gestion, CNRS UMR 5820, Grenoble, Maison de l'Entrepreneuriat, Grenoble Universites; Centre National de la Recherche Scientifique, France.

The main target of the project was the study of behavior of European students in front of the entrepreneurship. There are participating 299 Albanian students from AUT. This study has involved male (51%) and femele (49 %). Average age is 23.2 years ans (Min : 20, Max : 40). The principals results are:

- 39 % of the students are from scientific field and 61% students from social field.

- The result of the sensitivity toward company creation is remarcable. There's no significant difference between the professional vision and the entrepreneurship spirit of the participant students. The belief of the student is concentred on the majority answer "Very realisable". There is a high level of entrepreneurship target.

- Descriptive analysing has demostred that 93.3 % of students think that the idea to create the business at the end of their studies is attractive, only 4.7 % of the student are neutral and 2 % don't know.

- As far as the question "*Do you think you would be able to start your own business?*", is concerned, the results have indicated that 70.1 % of the Albanians evaluate their capacities to start a business, 9.2% of students are found "incapable" and 20.7% of them are undetermined.

- 77.2% of students have indicated that have the capacities to create an enterprise. The sex indicates a role: (test of Khi2 to10%), the females are more evaluated. But, the environment has also its inluence: 73.3% of the stutents that have a parent "entrepreneurship" have the sensivity that are capable for the business.

- The model of "l'intention entrepreneuriale" is measured by the alternative "employed/entrepreneurship". The question was: "*If you where to choose between running your own business and being employed by someone, what would you prefer* ?" The degree of "l'intention entrepreneuriale"for Albanian students is very important: 68.4 % of the students would like to create an enterprise at the end of their studies. On the other hand, 18.7% would like to be employed and 12.9% are undetermined.

3. CONCLUSIONS

In conclusion, the paper indicates some suggestions, which are important to be taken in to consideration to improve business ethics and to provide feedback to enterprise on expected growth. The study of Albanian enterprise development indicates that the reform impact has created a new panorama in general. This is related by the significant institutional changes and the great support from different international projects like World Bank, PNUD, etc.

The orientation to implant the management tools continues to be really important. On the other hand, a great attention should be paid to the improvement of economic, institutional and legal framework environment for enterprise support; enforcement of management culture; training program enterprises to understand the basis of ethic management.

Some problems like the legal aspect, accounting practices and its standards, inventory control, production' cost, marketing, quality control, personnel management and strategies for the future must considered more serious. Besides, respect of sustainable management demands more responsibility of entrepreneurship. If the implementation of macroeconomic stabilization policies and deeper structural reforms are associated with a lot of measures to improve business environment, a particular attention needs to demonstrate improvement of the ethic management in all SEE countries and particularly in Albania.

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LEADERSHIP STYLE DETERMINATION IN CROATIAN COMPANIES

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Key words: *Leadership style, Leaders' personal characteristics,*
Employees, Organizational features

1. INTRODUCTION

Leadership style is a crucial element of leadership. The importance of leadership style results from its role in organization's success. Many authors agree that there is a great correlation between leadership style and company's performance (Gebert and Steinkamp, 1991; McDonough and Barczak, 1991; Dawson et al., 1972; Swanson and Johnson, 1975). Because of this, it is important to analyze the leadership style in Croatian companies.

In the empirical research of leadership styles in Croatian companies, Likert's classification of leadership style is applied. This classification is widely used in the literature, and it satisfies the purpose of this research. This means that the leadership style is observed as job-based or employee-based, and it is identified by six leadership variables: leadership, motivation, communication, decision making, objectives, and control.

The aim of this research is to identify the dominant leadership style in Croatian companies, as well as to determinate the correlation between leaders' personal characteristics; organizational features and leadership style.

2. THEORETICAL BACKGROUND OF LEADERSHIP STYLES

There is no topic more important to business success today than leadership. Leadership is used to motivate employees to adopt new behaviours and, for some strategies, to infuse new values and attitudes (Daft and Marcic, 2001, p. 168). In the basis it is the ability to influence people towards the attainment of goals. It could be the important factor of success or failure of company. Bennis and Nanus (1985) stated that a business short on capital can borrow money, and one with a poor location can move. But a business short on leadership has little chance form survival.

Leadership is dynamic and involves the use of power. Power is the potential ability to influence the behaviour of others. It represents the range of resources with which a leader can effect changes in employee behaviour. One of the major differences between the leader and

the manger relates to their source of power. Management power comes from organizational structure and leadership power comes from personal sources, such as personal interests, goals, and values (Daft and Marcic, 2001, p. 385). The use of the power is connected to the determination of different leadership styles.

Leadership style represents an important aspect of leadership. Many authors agree that the leadership style has significant influence on job satisfaction and organizational commitment, company performance, productivity and profitability (Darwish, 1998, p. 275-284).

So it is very important to determinate the appropriate leadership style, and in order to achieve this it is crucial to definite the factors which have some impact on dominant leadership style. Many authors argue that the leadership style is influenced by leaders' characteristics, employees' personal characteristics and organizational features (Tannenbaum and Schmidt 1958; Yukl 1994; Maheshwari 1980).

There are many leadership style classifications in the literature. In this paper the adaptation of Likert's classification is applied because it is widely used and it satisfies the purpose of this research. Likert was the first who stress the importance of different leadership styles for performance and work efficiency, and who has, based on his empirical research, reached the conclusion that all leadership styles are the cause and not the consequence of work efficiency (Skansi, 2000, p. 54).

According to Likert (1961), optimal performance can only be achieved if attention is paid to the human aspects of subordinates' problems and behavioural aspects, such as motivating forces, communication processes, interaction-influence processes, decision making processes, goal setting processes, control processes, and performance characteristics. Based on these considerations, leadership styles could be either job based or employee based, and then further classified as follows:

Job based:
- Exploitive-authoritative type of leadership (System 1). This system utilizes an autocratic, top-down approach to leadership. Employee evaluation is based on punishment and occasionally on rewards. Downward communication is predominant and there is little lateral interaction or teamwork. Both control and decision making reside at the level of the organisation. This system is manipulative and results in low productivity.
- Benevolent-authoritative style of leadership (System 2). This system is similar to System 1 but management tends to be more paternalistic. Employees are given a little more freedom than in System 1. Management defines the limited boundaries for interaction, communication and decision making. This system produces average results.

Employee based:
- A consultative leadership style (System 3). Employees have more interaction, communication and decision making than in System 2. Although employees are consulted about problems and decisions, management makes the final decision. Overall productivity is good.
- A participative group style (System 4). This system makes extensive use of employer participation, involvement and groups. The groups are highly involved in setting goals, making decisions, improving methods and appraising results. Communication

occurs both laterally and vertically. It maximizes the quantity and quality of performance.

3. RESEARCH HYPOTHESIS AND METHODOLOGY

3.1. Research hypothesis

The main goal of this research is to find out the dominant leadership style in Croatian companies, on the basis of Likert's concept of leadership styles, as well as to find out the existence of the correlation between organizational features; leaders' personal characteristics and leadership style.

To this purpose, the following hypotheses are defined:

H1:   In Croatian companies the dominant leadership style is consultative leadership style.

H2:   There are no major differences in leadership style regarding different companies' activities.

H3:   The dominant leadership style depends on company size in such a manner that in smaller companies the leadership style is more oriented towards System 3 (Consultative leadership style).

H4:   The dominant leadership style depends on the leaders' gender.

3.2. Methodology

Subjects for this research were 389 individuals (managers) working in 118 different Croatian companies.

The demographics of the respondents in the sample are captured by several characteristics.

Women account for about 43 percent of the respondents. There are also 43 percent married survey participants.

The age distribution of the sample is as follows: interviewed persons younger than 40 years represent 52 percent of the sample; 41 percent are persons between 40 and 55 years, and 7 percent are individuals older than 55 years.

Just over 87 percent of all interviewed managers are university educated, and some 12 percent of them have high school degree. By profession, over 90 percent of the total number of interviewed are engineers and economists.

In terms of work experience, some 30 percent of all interviewed individuals reported working less than 10 years; and just over 8 percent reported working more than 30 years. There is a nearly even split between individuals who reported working between 11 and 15 years which represent 15,7 percent of respondents, individuals who reported working between 16 and 20

years which are 15,2 percent, and individuals who stated working between 21 and 25 years which represent 17,0 of interviewed persons.

Table 1 represents the structure of interviewed companies by activity.

Table 1. Numbers of companies in the sample

Activity	Number	%
Commerce	35	29,66
Manufacture	28	23,73
Services	55	46,61
Total	**118**	**100,00**

The data collection is conducted by questionnaire with 76 questions. The questions were classified in four groups. The first group of questions is related to the characteristics of the company, such as activity, size, age and region of belongings, the second group of questions concerns the personal characteristics of interviewed individuals such as age, gender, marital status, experience and tenure. The third group of questions relates to the leadership style which was covered by 6 variables: leadership, motivation, communication, decision making, objectives and control. And finally, the fourth group of questions is about organizational culture.

From the questionnaire structure it could be seen that this was a huge research, so the leadership style analysis presented in this paper is just one part of this research. As it is already stated the leadership style is analyzed by 6 individual leadership style variables. In the questionnaire these variables are covered as follows.

Every variable was examined by two to four questions. The answers to these questions have four levels of intensity.

In the case of variable leadership the respondents were asked about trust in subordinates, felling of free by subordinates in communication with leader and use of subordinated' ideas by the leader. The variable of motivation is analyzed by the questions about ways of motivation pursued by leaders, responsibility of achieving objectives and the level of team work development. The communication is detected by cognition about usual direction of information flow, the level of information acceptance by the employee, accuracy of information from the employees and understanding of employees' problems by the manager. The knowledge about decision making is obtained by the questions about the level where the decisions are making, employees' participation in decision making process and motivation by goals. The variable objectives is examined by manner of objective determination and the existence of resistance towards designated objectives. And finally, the last leadership style variable the control is studied by the questions about the determination of the persons responsible for control, the existence of resistance to rules and purpose of control data.

Data analysis and testing the hypotheses are conducted by appropriate statistical methods. For leadership style analysis methods of arithmetic average and standard deviation were used. Additionally, Spearman's rank correlation coefficient is used to analyze the correlation between some relevant variables. Statistical analysis was based on computer programs SPSS 11.5 for Windows and Microsoft Excel 2000.

4. RESEARCH RESULTS

The primary goal of this research was to determinate the dominant leadership style in Croatian companies. In order to achieve that goal leadership style was analysed according to Likert's model by 6 leadership style variables. In table 2 there is the leadership style determination by those variables.

Table 2. Leadership style determination

Leadership style variables	Style
1. Trust in subordinates	2.47
2. Feeling of free by subordinates in communication with leader	3.23
3. Use of subordinates' ideas by the leader	2.77
Leadership:	*2.82*
1. Type of motives	2.73
2. Responsibility for meeting objectives	2.89
3. Team work	3.18
Motivation:	*2.93*
1. Usual direction of information flow	2.73
2. Acceptance of information by the employees	3.21
3. Accuracy of information from the employees	3.01
4. Understanding of employees' problems by the manager	2.91
Communication:	*2.97*
1. Level of decision - making	2.18
2. Subordinates participation in decision -making	2.96
3. Motivation of employees	3.31
Decision - making:	*2.82*
1. Manner of objectives' determination	2.74
2. Existence of resistance toward designated objectives	3.18
Objectives:	*2.96*
1. Persons responsible for control	3.00
2. Existence of resistance to rules	2.97
3. Primary purpose of control data	3.27
Control:	*3.08*
Leadership:	**2.95**

It could be noticed that all variables have the values on the border between 2 and 3 which means that the dominant leadership style among Croatian managers is some transitional form from benevolent-authoritative style to consultative leadership style. But it should be pointed out that it is much closer to the consultative leadership style (the sum of all variables is 2.95).

If we want to analyse the influence of each leadership variable on dominant leadership style it could be perceived that leadership and decision making indicate that management develops benevolent-authoritative style (e.g., the level leadership - 2.82; and the level of decision making - 2.82). On the other hand, the level of variable which represent control is 3.08 which means that consultative leadership style is also present. As it was already stated the sum of all variables is 2.95 so it could be concluded that dominant leadership style in Croatian companies is oriented towards consultative one.

Figure 1 present the illustration of dominant leadership style in Croatian companies.

Organizational variables	System 1	System 2	System 3	System 4
How much trust do you show toward your subordinates?	Practically none	Some	Quite a lot	A lot
How free do the employees feel in discussing business matters with you?	Not at all	To a certain extent	Quite free	Very free
How often do you effectively use your subordinates' ideas/suggestions?	Rarely	Sometimes	Often	Very often
What do you use to ensure the required performance: (1) fear, (2) threats, (3) punishment, (4) rewards, (5) participation?	1, 2, 3, sometimes 4	4, some 3	4, some 3 and 5	5, 4 - based on objectives agreed with all the employees
Who is actually responsible for meeting the designated objectives of your enterprise?	Only the general manager	Enterprise management	None specific	All the employees
How much is teamwork used in your enterprise?	In a very small extent	In a relatively small extent	Moderately	Extensively
What is the usual flow of information?	Upside-down	Mostly upside-down	Both upside-down and bottom-up	Upside-down
How do the employees accept the information from the higher levels of hierarchy?	With suspicion	Sometimes with suspicion	Cautiously	With "open mind"
How accurate is the information communicated to management by the employees?	Usually inaccurate	Often inaccurate	Often accurate	Almost always accurate
How well do you understand the problems faced by your subordinates?	Not so well	Well	Quite well	Very well
What is the principal hierarchical level on which the decisions are being made?	Mostly on the top of the hierarchy	Mostly on the top of the hierarchy, with some delegation	Fundamental policies on the top, with a lot of delegation	On all hierarchical levels, but all the decisions are well integrated
Are your subordinates involved in decision-making?	Almost never	They are sometimes consulted	They are often consulted	They are completely involved
How much does the involvement in decision-making contribute to the motivation of employees?	Not to a large extent	Only to a small extent	Only to a limited extent	To a large extent
How do you determine the enterprise objectives?	By giving orders	By giving orders, but accepting the comments	Both orders and discussions	Group actions (except in a crisis)
How much do the employees resist toward the designated objectives?	Significant resistance	Limited resistance	Occasional resistance	Small or no resistance
Who controls operations and business results?	Only general manager	General manager to a significant extent	All managers	All managers and employees
Are there any individuals/groups resisting the agreed rules and procedures?	Often	There are some	Sometimes	No
What is the primary purpose in which the control data (describing costs, productivity, etc.) are being used?	Mostly for managing operations/enterprise	To determine rewards and punishments	To determine rewards and facilitate self-direction of employees	Mostly to faciliate problem solving and self-direction of employees

Figure 1.   Profile of leadership styles in Croatian companies

In further text the leadership styles are analysed on the basis of some personal characteristics of the interviewed managers or organizational features of companies in which they work.

Table 3 represents leadership style determination and ownership status of interviewed persons.

Table 3: Leadership style variables and ownership status of interviewed persons

Leadership variables	Owner	Employee	Owner and employee	Total
Leadership	2.92	3.02	2.95	2.97
Motivation	2.96	2.94	3.29	3.06
Communication	2.93	2.96	3.06	2.98
Decision making	3.16	2.80	2.88	2.94
Objectives	3.18	2.94	2.62	2.91
Control	3.37	3.08	2.66	3.04
Total:	**3.09**	**2.96**	**2.91**	**2.98**

From table 3 it could be noticed that there are no major differences between leadership style and ownership status. No matter is the interviewed person owner, employee, or both, the dominant leadership style is oriented to consultative style but slightly emphasised in companies where the interviewed person is owner. In these companies the control variable is on the highest level (3.37) which implies the existence of the consultative leadership style. In contrary, the variable objectives has the level of 2.62 in companies where the interviewed person is at the same time owner and employee, which implies the existence of the benevolent-authoritative leadership style.

Table 4 shows the connection between leadership style and jobs performed by interviewed persons.

Table 4: Leadership style variables and jobs of interviewed persons

Leadership style variables	General manager	General manager assistant	Technical manager	Production manager	Commercial manager	Account and finance manager	Human resources managers	Other	Total
Leadership	2.95	2.66	2.78	2.97	3.09	3.03	2.81	3.04	2.92
Motivation	2.71	2.55	2.71	2.70	3.27	2.89	2.94	2.94	2.84
Communication	2.99	2.87	3.14	2.89	3.14	3.02	2.67	2.93	2.95
Decision making	2.38	2.50	2.94	2.58	3.01	2.79	2.43	2.83	2.68
Objectives	3.14	3.03	3.07	2.69	3.16	2.90	2.79	3.57	3.04
Control	3.09	2.92	3.23	2.71	3.12	3.06	2.97	3.08	3.02
Total:	**2.88**	**2.75**	**2.98**	**2.75**	**3.13**	**2.95**	**2.76**	**3.07**	**2.91**

The table above shows the slightly differences in leadership style regarding the organizational position of interviewed persons. The consultative leadership style is evident in position of commercial manager; the technical manager is also oriented towards this style, as well as account and finance management, while general managers, general manager assistant, production management, and human resource management are slightly inclined towards the benevolent-authoritative leadership style.

Dominant leadership style regarding the gender of interviewed persons is the style between benevolent-authoritative and consultative leadership style, with the strong orientation towards consultative style. This could be observed from table 5. But it is also needed to point out that consultative leadership style is emphasised in the case of men.

Table 5. Leadership style variables and gender of interviewed persons

Leadership style variables	Male	Female	Total
Leadership	3.02	3.01	3.02
Motivation	2.92	2.95	2.94
Communication	2.96	2.98	2.97
Decision making	2.84	2.56	2.70
Objectives	2.97	2.95	2.96
Control	3.08	3.09	3.09
Total:	**2.97**	**2.92**	**2.94**

Table 6 and 7 represent relation between leadership style variables and organizational features.

Table 6. Leadership style variables by companies' activities

Leadership style variables	Commerce	Manufacture	Service	Total
Leadership	2.95	2.95	3.07	2.87
Motivation	2.83	2.90	3.07	2.93
Communication	3.03	3.00	2.83	2.95
Decision making	2.72	3.00	2.98	2.90
Objectives	2.99	2.96	3.00	2.99
Control	3.21	2.95	3.12	3.09
Total:	**2.95**	**2.90**	**3.01**	**2.95**

There are some but no major differences between leadership styles regarding companies' activities. No matter is the company's activity is commerce, manufacture, or service the dominant leadership style is oriented on consultative one.

Table 7. Leadership style variables and the companies' size

Leadership style variables	-100 employees	101-250 employees	251- employees	Total
Leadership	3.05	2.90	3.03	2.99
Motivation	3.05	2.76	2.78	2.86
Communication	3.12	2.94	2.86	2.97
Decision making	2.97	2.59	2.77	2.78
Objectives	3.16	2.75	2.80	2.90
Control	3.21	3.08	2.99	3.09
Total:	**3.09**	**2.97**	**2.88**	**2.93**

As can be seen from table 7, in totality there are but small differences between leadership styles related to the size of small firms. In all three cases the consultative style of leadership is emphasized, especially in companies which employ less than 100 people. Some differences exist in individual variables. Control function is the most developed variable in companies with less than 100 people (3.21), as well as in companies which employ from 101 to 250

individuals (3.08). On the other hand, decision making variable is the least developed variable in all sized companies.

Global independence between leadership style variables and personal characteristics of leaders in surveyed companies in Croatia is analyzed by Spearman's rank correlation coefficient. Correlation coefficients between individual variables of leadership style and leaders' personal characteristics are given in table 8.

Table 8. Correlation coefficients between leadership variables and leaders' personal characteristics

		Ownership status	Position	Gender	Age	Origin of l leaders	Education	Tenure
Leadership	r p N							
Motivation	r p N				-.139** .003 389			-.100* .025 389
Communication	r p N					.134** .004 389		
Decision making	r p N					.102* .022 389		
Objectives	r p N							
Control	r p N	-.107* .017 389					-.200** .000 389	

  * The correlation is significant at the level of 0.05, i.e. 5%
  ** The correlation is significant at the level of 0.01, i.e. 1%

From the table 8 it could be seen that the correlation has been found between just some leadership variables and some leaders' personal characteristics. The intensity of discovered correlation is very week. Individual variables leadership and objectives do not have any correlation with any leaders' personal characteristics.

A significant correlation has been found between motivation as leadership variable and age and tenure of respondents. This correlation is the negative one, and has week intensity. The correlation between communication and origin of leaders also exists. It is positive correlation and its intensity is also week.

The positive correlation of week intensity has been found between decision making and origin of leaders.

And finally, the leadership variable of control has the negative correlation with ownership status and education. This correlation also has week intensity.

Table 9 represents correlation coefficients between individual variables of leadership style and organizational features.

Table 9. Correlation coefficients between leadership style variables and organizational features

		Activity	Size
Leadership	r		
	p		
	N		
Motivation	r	.148**	-.088*
	p	.002	.041
	N	389	389
Communication	r		
	p		
	N		
Decision making	r	.207**	-.153**
	p	.000	.001
	N	389	389
Objectives	r	.092*	
	p	.036	
	N	389	
Control	r	.112*	
	p	.014	
	N	389	

 * The correlation is significant at the level of 0.05, i.e. 5%
 ** The correlation is significant at the level of 0.01, i.e. 1%

In this research the influence of two organizational features on leadership style is observed. These features are activity and company's size.

There is a significant positive correlation between activity and motivation, decision making, objectives and control as leadership style individual variables. In all cases the perceived correlation is of week intensity. On the other hand, there is no correlation between company's activity and variables of leadership and communication.

If the case of variable company's size the correlation with leadership variables is detected only in the case of motivation and decision making. In both cases the observed correlation is negative and low intensity. In the cases of leadership, communication, objectives and control significant correlation is not perceived.

5. CONCLUSIONS

This paper has been devoted to identify the dominant leadership style in Croatian companies. Additionally, it investigates the influence of organizational features and leader's personal characteristics on leadership style in surveyed companies. The leadership style is analyzed by

six individual variables which allow the observation of the influence of each single variable on dominant leadership style.

The empirical results show that the sum of all leadership variables is 2.95 which indicate that the dominant leadership style in Croatian companies is on the border between benevolent-authoritative style and consultative leadership style. But it could be stated that the orientation of Croatian managers is on consultative leadership style. This confirms the hypotheses 1 of this research.

If each single leadership style variable is analysed it could be noticed that the leadership and decision making suggest the management orientation towards benevolent-authoritative style. Contrary, the variable control indicates the existence of consultative leadership style.

The hypothesis 2 supposes that there are no considerable differences in leadership style regarding different companies' activities. This is confirmed by research results presented in the table 6. Therefore, it could be concluded that company's activity does not have a large influence on dominant leadership style. In all observed companies no matter on theirs activities the dominant leadership style is oriented on consultative one. In order to fulfill this observation, Spearman's correlation coefficient shows the significant positive correlation but week intensity between company's activity and some individual leadership variables, which confirms some but no major differences between leadership styles regarding companies' activities.

The hypothesis 3 suggests that leadership style depends on company's size in such a manner that in smaller companies the leadership style is more oriented towards consultative leadership style and as companies grows the authoritative elements become evident. On the basis of research results presented in the table 7 it could be stated that in smaller companies the dominant leadership style is consultative one, and as companies grows the leadership style is more oriented toward benevolent-authoritative style. So in the large companies the management tends to be more paternalistic, it defines the limited boundaries for interaction, communication and decision making. The correlation coefficient relating to company's size implies the existence of significant but low intensity negative correlation between company's size and just two leadership style variable which are motivation and decision making.

Research results show that the dominant leadership style regarding the gender of interviewed leaders is oriented toward consultative style. But some slight differences do exist. The greater orientation toward consultative style is evident in the case of male managers. In the case of gender the significant correlation between gender and individual leadership variables do not exists.

The contribution of this paper relates in the fact that it increases the knowledge about leadership style in Croatian companies, and also it represents the basis for further researches on this topic. This study discovers the dominant leadership style in Croatian companies and correlation of leadership variables with some leader's characteristics and organizational features. But there are many other relations, aspects and causes which could be investigated in order to accomplish the complete picture about all elements which influence on leadership style.

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DESIRABLE OUTCOMES OF GRADUATE MARKETING EDUCATION: MANAGERS' POINT OF VIEW

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1. INTRODUCTION

At the beginning of this research, we were interested in the other half of the educational equation, employers' point of view. It is something of a cliché´ for businesses to note the importance of their ''human resource'', i.e. their people. But, what is expected from this resource? What skills are required, particularly from graduates beginning their carrier? This article explores some of these questions and reports on the action that is being taken in marketing area to support business requirements.

The aim of this paper was to gain a greater understanding of the skills expected from a graduate, if there were any perceived differences in the employers' viewpoint between business and nonbusiness graduates and to what extent, if any, the discipline affected rate of promotion.

Furthermore, changes in accreditation standards and procedures are demanding attention to measuring and improving the effectiveness of graduate education (Pharr and Morris, 1997). Funding bodies, including state legislatures, are requesting evidence that education expenditures are producing meaningful results. Even more dramatically, the rankings of MBA programs by media such as *Business Week* and *U.S. News* and *World Report* have increased the felt need to demonstrate the effectiveness and responsiveness of graduate training to the demands of the market. Finally, some customers (including students, parents and employers)

have expressed dissatisfaction with perceived skill sets and made requests for additional types of training (Jacobson 1993; Floyd and Gordon 1998; Hatfield and Taylor 1998).

It is the fact, that as a direct consequence of educational expansion, the number of graduates searching for employment has grown dramatically (Hayman and Lorman, 2004). Therefore, those graduates are main competitors at the job market and probably their core competence will be the rating of the school they graduated at. Kandola (1999), reflects on the "manager-graduate relationship" suggesting that greater level of performance can be achieved with the development of individual's attributes and skills. Nevertheless, schools have to start offering graduate programs which are demanded by the market.

Through this research, authors wanted to better understand the marketing skill sets and marketing knowledge which our own graduate marketing students should have upon degree completion.

2. EXPECTATIONS FROM GRADUATE STUDENTS

The emphasis on skills required by employers varies depending on the type of a job to be carried out within an organization. However there has been some consensus on the importance of "transferable" or "employable" employees' skills, particularly for those in management positions. These skills refer to certain personal abilities of an individual, which can be taken from one job role to another, used within any profession and at any stage of their career (Raybould and Sheedy, 2005).

Employers have the opinion that too much emphasis is placed on theory and that certain practical skills are omitted. Problem solving, financial perspectives, leadership and communication skills are all areas highlighted as being deficient. There is, therefore, an inherent need to include a greater level of practical skills in teaching in order to satisfy this employers' need.
For many years the demise of the graduate recruitment scheme has been predicted, some suggesting that dynamic employers want graduates that can take substantial responsibility and contribute to bottom line profitability within months of joining an organization (Hayman and Lorman, 2004). Contrary to this view, some "blue chip" (organization that if invested in, would be considered to be very reliable and safe and among the strongest performers in its sector) employers have retained their "scheme", believing that hand picked recruits developed in(to) the organizational "mould" are more likely to achieve the medium- to long-term results so desperately sought.

Consequently, more young people are able to enter at graduate level a wider variety of occupations than ever before, the highly "vocational" nature of "new" university courses revitalizing the concept of education to meet employer's needs. The rapid growth of graduate disciplines and number of graduates has changed the balance of graduates and non-graduates in the workforce. Scott-Clarke and Byrne (1995a, b) noted that this increase has resulted in the gradual change of jobs previously taken by non-graduates. Because organizations need to select those recruits that are most likely to deliver the performance most consistent with the organization's needs, some organizations have developed dedicated recruitment procedures that carefully select, recruit, train and develop such employees.

Research on graduate employment addresses generic competencies as skills, abilities and attributes that complement the field of specialization of employees for work performance (Day, 1988; Sandberg, 1991; Lam, 1994; Cheah and Yu, 1996; Sohal, 1997; Percetakan National Malaysia Berhad, 2001; Mitchell, 2003). In other words, employers prefer workers who have generic competencies like interpersonal skills, leadership skills, teamwork, and oral and written skills for work performance. In addition, cognitive skills like numerical skills, innovative skills, problem-solving skills, research skills and computer skills are also reported to denote generic competencies for work performance (Quek, 2005).

Furthermore, it is reported that attributes like diligence, dependability (Percetakan National Malaysia Berhad, 1996; Quek, 2000; Percetakan National Malaysia Berhad, 2001) and honesty, and attributes associated with flexibility, like adaptability and resourcefulness (Schroder, 1989; Appelbaum et al., 1999; Percetakan National Malaysia Berhad, 2001), are generic competencies for meeting workplace needs. Accordingly, Jacobsen (1993) described generic competencies as success skills in employees that are needed to transfer learning from the classroom to the workplace for fulfilling work demands.

At the Malaysian Confederation of Scientific and Technological Association's (COSTAM) 10th Public Lecture in July 2000, the Minister of Education also voiced clearly that students who had not learned generic competencies were unable to apply what was learned in the classroom to the workplace. In other words, graduates who were not taught explicitly generic competencies, i.e. skills, abilities and attributes (to complement their areas of specialization), were unable to cope and survive in the world of work, and these graduates faced difficulties in getting employment (Lee et al., 2001; Singh, 2001; Quek, 2003). This is because employers prefer to employ graduates who have generic competencies like numerical, evaluation, problem solving, and innovation skills for operating as knowledgeable staff to satisfy the demands of complex working situations. In addition, graduates who are flexible and can adapt quickly to meet current and specific workplace needs so as to enable the corporation to stay ahead of competitors in design, production and marketing are also sought by employers (Singh, 2001; Quek, 2004).

Overall, based on their experience of business graduates, employers commented on the lack of practical skills being taught and the overemphasis on theory (O'Brien and Deans, 1995). Marketing education literature states that an ever-increasing emphasis is placed on transferable skills, e.g. presentation techniques, financial analysis and computer literacy (O'Brien and Deans, 1995). This may also satisfy employer expectations to a greater degree, since employers are constantly stressing the importance of graduates having skills in various areas. According to Graduate Prospects, the trading subsidiary of the charity HECSU, "Nearly two-thirds (64 per cent) of vacancies on offer are open to graduates from any discipline. This reflects the fact that employers are looking for vital soft skills in graduates which are obtained during study and periods of work experience, rather than degree-specific knowledge" (Raybould and Sheedy, 2005).

3. GRADUATE LABOR MARKET

The graduate labor market worldwide has undergone significant change in the last decade (Purcell et al., 2002; HESA, 2000; Pearson et al., 1999). Many more new graduates are available to recruiters and their composition is more diverse. In the main, to date, this

expansion in graduate supply has been accommodated by the labor market, albeit with some lags in demand in times of recession (Holden and Harte, 2004). There have also been notable changes in the distribution of jobs within the graduate labor market. For example, the Association of Graduate Careers Advisory Services report vacancies from information technology (IT), sales and marketing companies increasing significantly in the late 1990s. Vacancy levels for small to medium-sized enterprises (SMEs) have also been increasing (Holden et al., 2003). Indeed, the traditional route of new graduates into employment, focused predominantly on the large employer, through an annual intake of young graduates to a dedicated entry route, appears to be in terminal decline.

However, the weight of labor market evidence suggests that this is more than counter-balanced by non-traditional opportunities; for example, professional and managerial work outside traditional recruitment channels (Purcell et al., 2002; Pearson et al., 1999). To explore and assist in understanding the changes across the whole graduate labor market, Elias and Purcell (2003) propose a new fivefold classification of the occupational structure. In addition to "traditional" graduate jobs (for example, in the medical and legal professions) and "modern" graduate jobs (banking, accountancy, IT) the authors identify the "new" graduate jobs (for example, technical services, marketing, sales) and niche areas of graduate employment, such as hotel management, nursing, sports and entertainment. Elsewhere, numerous studies have sought to identify the missing skills in new graduates or identify their supposed strengths and weaknesses as they enter first destination employment (e.g. Pettifor and Higgins, 2003; Rajan et al., 1998; Graduate Employment and Training, 1997; AGR, 1995).

The employers' survey (O'Brien and Deans, 1995) highlighted some areas of interest when considered in the light of student expectations. Students appear to be studying under the misapprehension that they will leave university and go straight into a senior management post. Employers find them unprepared for such posts and, regardless of their degree subject, provide further training. This training reflected the lack of presentation, analytical, oral and computer literacy skills which graduates displayed. Stewart and Knowles, for example, report employers indicating that it is only after a graduate has been in the labor market for some time that they become more "realistic" about their expectations.

It was proven then for some graduates, the transition from higher education to work is often far from smooth. Increasingly we can see evidence (Galloway, 2000; Jones et al., 2001; Harvey, 2001; O'Reilly et al., 1999; CVCP, 1998) of a view of graduate employability which holds that a degree is not the end of learning. Indeed, Harvey (2001) argues that a critical purpose of higher education is not so much the delivery of employability skills in some generic sense but the development of "critical lifelong learners". This, he maintains, enables students to go beyond the narrow confines of their "safe" knowledge base of their academic discipline to applying themselves to whatever they encounter in the post-education world. Evetts (1998), for example, argues that "lifelong learning is the motivated and planned activity of the individual (engineer) to ensure his/her own professional development".

However, there is also a responsibility of employers who are demanding the certain skills from graduates. In a market economy, employers are often reluctant to invest in employee development due to perceived uncertainty about the return on this investment of time and money.

4. MARKETING GRADUATES

To date, literature in the area of graduate education has focused primarily on general business education, with marketing being one element of this. Middleton and Long (1990) reported that this may be due to the fact that "employers do not differentiate between marketing and management skills". Previous research studies have therefore tended to be in the more general area of business education opposed to focusing exclusively on marketing elements.

Therefore, in their research Ellen and Pilling (2002) analyzed employers perception towards MBA and marketing oriented MS. Without naming them as MBA and MS, respectively, 71% of employers felt the broad-based degree (MBA) would better suit their organization. Further in the questionnaire, the broad-based degree was identified as the MBA, and the specialized degree as the MS. In response to the question, "assuming you have two applicants with equal qualifications, in your company, would you be more likely to hire a person with an MBA or an MS," 43% answered it would make no difference, 40% favored the MBA, and 17% marked the MS. Those more likely to hire MBAs expected the applicant to be a generalist, capable of understanding all areas (not just marketing), with multi-functional capabilities more fitted for corporate office level. They also expected others to be more knowledgeable about and therefore more comfortable with the result of MBA training. Preference for the MS degree, as expected, emphasized the in-depth knowledge and ability to be a "real" marketer. Subsequently they were asked about whether these same individuals could be offered similar or different salaries. Eighty-nine percent indicated that there would be no salary differences between the MBA an MS, and eight percent said the MS degreed person would receive a lower salary for the MS, while 32% felt the MBAs would have better opportunities for career advancement.

Our research examines the desired marketing skills set and marketing knowledge which employers are seeking when they hire graduate marketing students. The employer perspective is logical starting point for several reasons. First, the likelihood of suitable employment for the graduate student will increase if that student is perceived to possess the skills set valued by prospective employers. Second, based on socialization theory, the likelihood of career advancement should also increase when there is a greater match between the student's skills set and what the employer is seeking (Dubinsky, Howell, Ingram and Bellenger, 1986). Third, we would anticipate a long-term positive perception of a given school's program in marketing as its graduates demonstrate that they have acquired the skills necessary to be effective. This positive perception would be indicated by an improved reputation with employers, an increased demand for that school's graduates, improved employment rates, higher salary levels, and better career advancement.

Do we teach the courses necessary to enquire specific skills? Within a given course, are the appropriate skills related to the topic area being taught (as identified in the employers' survey)? For example, in a marketing research class, do the students develop the ability to design and execute a market research study? Can students demonstrate these skills in the interview process and on the job? It may be necessary to revise the graduate marketing curriculum to better deliver desired marketing skill sets. This process, particularly in terms of bureaucratic demands, may be facilitated by the "market-driven" data.

5. METHODOLOGY

For the purpose of this study the same methodology was used as in Ellen and Pilling (2002). Therefore, this research also addresses two main issues:

1. What do relevant constituents believe are the appropriate outcomes for the educational process at a graduate marketing program? What should students be able to do? What skills should they have?

2. What criteria are deemed to best prepare a student for positions requiring graduate marketing training? The criteria examined include undergraduate preparation, degree specialization, and course-specific training.

To address the first question about skill sets, employers were asked to delineate core marketing skills necessary for effectiveness in their companies. For the second question, they were asked what type of training (i.e., undergraduate degree, degree of marketing specialization and topic-area training) would provide the best training for their work.

5.1. Sample

The questionnaire, first developed by Ellen and Pilling (2002) was distributed among 100 top companies in Bosnia and Herzegovina which are most likely to hire a graduate students. Survey was done in October 2005 via post, and answers were requested the same way. After a second call, total of 38 filled questionnaires returned. Even though it seams as a rather small response rate, if we consider the overall economy and business environment in Bosnia and Herzegovina, we can take those data as relevant. Unfortunately, very few companies have developed continuous education formula for their employees, and they plan and evaluate human resources, so they are competent to answer our questionnaire. Those are the same companies which cooperate with School of Economics and Business, and participate in creation of undergraduate and graduate programs. Since we had received their questionnaires, we proceeded with analysis.

Among researched companies, number of employees varied between 6 and 7.561, and their distribution is clearly shown in table 1.

Table 1: Number of employees

Number of employees	Frequency	Percent
1 – 19	1	2.6
20 – 99	10	26.3
100 – 499	18	47.4
500 +	9	23.7
Total	**38**	**100.0**

Out of the total number of employees, working in marketing department there are between 1 and 419 employees, and this detailed distribution is given in table 2.

Table 2: Number of employees in Marketing department

Employees	Frequency	Percent
0-5	14	36,8
6-25	9	23,7
26-100	10	26,3
100+	3	7,9
Total	36	94,7
System Error	2	5,3
Total	**38**	**100,0**

Furthermore, questionnaires were filled by Marketing Manager in 44.7% of the companies, or at some places by CEO with 21.1%. Respondents mostly hold an undergraduate degree (84.2%), while 15.8% of the respondents have graduate degree.

5.2. Analysis

The survey asked employers for the three most important core skills that would be expected form a person with a graduate degree in marketing that would **not** be expected from a person with a graduate degree in another business area. By limiting the respondents to only three core skills, we hoped to get them to prioritize their needs rather than provide whole listings of marketing activities or tasks. The results, as shown in table 3, indicate that management capabilities are by far, at two leading positions. Total of 55.6% of respondents mentioned Marketing Management among three most preferable competencies, while 52,8% indicated overall general management capabilities. Those results are consistent with the fact that 52.6% of the managers stated that they would expect marketing graduate to have broad marketing knowledge rather then specialized.

Table 3: Core skills

Category label	Count	% of the Responses	% of the Cases
Marketing Management	20	18,9	55,6
General management capabilities	19	17,9	52,8
Creativity	16	15,1	44,4
Communications	10	9,4	27,8
Research capabilities	7	6,6	19,4
Public Relations	5	4,7	13,9
Calculations	4	3,8	11,1
Marketing plan development	4	3,8	11,1
Market analysis in BH and region	3	2,8	8,3
Foreign Language Proficiency	3	2,8	8,3
Media contacts	2	1,9	5,6
IT literacy	2	1,9	5,6
Service Marketing	2	1,9	5,6
Macroeconomic knowledge	2	1,9	5,6
Technology knowledge	2	1,9	5,6
Team work	1	0,9	2,8
Insurance Industry	1	0,9	2,8
Management of transferable system	1	0,9	2,8
Kindness	1	0,9	2,8
Human Resource Management	1	0,9	2,8
Total	**106**	**100,0**	**294,40**

Given that a company wants someone with graduate training in marketing, does the undergraduate preparation matter? Undergraduate training was expected to be relevant for two reasons. First, the MBA degree has shifted form its original positioning, as a business degree for students without an undergraduate business degree, to a second business degree. Employers might prefer someone with greater business training, as indicated by two business degrees, or they might prefer someone with other complementary or industry related skills, such as technical training. Responses to this question are given in the following table.

Table 4: Undergraduate degree

Undergraduate degree	Frequency	Percent
Economics or Business	33	86,8
Engineering	3	7,9
Social or human science	1	2,6
Other	1	2,6
Total	**38**	**100,0**

As we can see, two business degrees, both undergraduate and graduate are preferable in the majority of responses (86,8).

Some universities, including University of Sarajevo, have two graduate degrees – the traditional MBA (Master of Business Administration) in Marketing and the Master of Science (MS), which is traditionally more specialized. Since MBA is world wide known, at first two programs were described to respondents, but not particularly named as MBA or MS. This approach allowed the respondents to choose a degree based on its concept rather than preconceived notions about the degrees. Specifically, employers were told that students had two options for their degree: students could take courses across all business areas and then take up to 1/3 courses in marketing (broad-based MBA) or students could take few courses in other business areas and up to 2/3 marketing courses (specialized MS). From these descriptions, employers were asked which program better prepared students for their department. The question forced them to choose between the two options, and responses are shown in table 5.

Table 5: Preferences towards specialized or broad program

Study program	Frequency	Percent
1/3 courses in marketing	10	26,3
2/3 courses in marketing	28	73,7
Total	**38**	**100,0**

From the given results, it is clear that specialized MS is greatly preferred then broad based MBA. Open-ended questions were also included to understand the reason for this preference. Surprisingly, reached results are inconsistent with the previous question. Managers stated that they prefer specialized program, while in the next table 31.3% of them indicated broad theoretical knowledge as a reason for preference.

Table 6: Reason for preferences of the program

Reason for preference	MBA	MS	Neither	Row Total
Broad theoretical knowledge	5	3	2	10 (31,3%)
Experience	4	3	2	9 (28,1%)
Narrow specialization	0	7	0	7 (21,9%)
Business Management	5	0	1	6 (18,8%)
Consumer Behavior	3	0	0	3 (9,4%)
Specifics of the business	1	1	1	3 (9,4%)
Understanding the interactions with other departments	2	0	0	2 (6,3%)
IT and Communications	1	0	0	1 (3,1%)
Data gathering	1	0	0	1 (3,1%)
E-business	1	0	0	1 (3,1%)
Marketing plan development	1	0	0	1 (3,1%)
European education system	1	0	0	1 (3,1%)
Roll of the Marketing function	0	1	0	1 (3,1%)
Column Total	16 (50,0%)	14 (43,8%)	2 (6,3%)	32 (100%)

Then the programs were named with the broad-based approach corresponding to the MBA program and the specialized approach corresponding to the MS program. The respondents were asked, assuming two applicants were equal on all other qualification except their degree specialization, which would they hire, and whether there would be differences in salary or opportunity for advancement. These questions also allowed employers to indicate no preference for one program over another and the results are listed in tables that follow.

Table 7: Preferences between MBA and MS

Program	Frequency	Percent
MBA	20	52,6
MS	15	39,5
No preferences	3	7,9
Total	**38**	**100,0**

Interesting is that when programs are named, 52,6% choose well known brand MBA, while previously, without naming, this program was preferred only by 26,2% of the respondents. This can be greatly used by the university in order to promote MBA. It is obvious that MBA brand is widely known and acknowledged as better graduate program then MS. There is no major differences in salary for two groups of gradates, but MBAs are more likely to be promoted then MSs.

Table 8: Influence of the program on salary

Salary and the program	Frequency	Percent
Higher salary for MBAs	9	23,7
Higher salary for MSs	8	21,1
Same salary for MBA and MS	21	55,3
Total	**38**	**100,0**

Table 9: Influence of the program on promotion

Promotion and the program	Frequency	Percent
Promotion for MBAs	16	42,1
Promotion for MSs	9	23,7
Same promotions for MBA and MS	13	34,2
Total	**38**	**100,0**

Finally, feedback was sought on the value of training in specific topics, corresponding to the fourteen graduate marketing courses offered by Marketing department at University of Sarajevo. Respondents were asked to indicate up to five courses that would be most beneficial to someone working in their department. They could also add topic areas if no existing course corresponded to their top five needs. Reached results are shown in the table 10.

Table 10: The most beneficial graduate marketing courses

Category label	Count	Percent of the Responses	Percent of the Cases
Sales and Sale's Management	27	14,4	71,1
Strategic Marketing Planning	21	11,2	55,3
Marketing Communications and Promotions	19	10,2	50,0
Public Relations and Corporate Communications	18	9,6	47,4
Consumer Behavior	16	8,6	42,1
Market Research	15	8,0	39,5
Strategic Brand Management	13	7,0	34,2
Service Marketing	12	6,4	31,6
Direct and Internet Marketing	10	5,3	26,3
Business-to-business Marketing	9	4,8	23,7
Marketing Management	9	4,8	23,7
Foreign trade	8	4,3	21,1
International Marketing	7	3,7	18,4
Trade Management	2	1,1	5,3
Management	1	0,5	2,6
Total	**187**	**100,0**	**492,1**

If we compare those results with the core skills required from graduates, we can notice some more inconsistency. Managers stated that the preferable core skills are those related to management, specifically Marketing Management, while this subject was noted on tenth place

of the most beneficial courses. Furthermore, sales and sales management is listed as first, and this indicates policy of a short term benefit and tendency to increase cash flow at the moment and not to establish strategic planning for the future.

6. DISCUSSION

The main goal of this research is a deeper understanding of skills set by one business major graduate. First thing that we should further analyze is the fact that basic management skills are wanted from marketing graduates. This can correlate with the opinion of Middleton and Long (1990), who reported that "employers do not differentiate between marketing and management skills". Perhaps marketing management and overall marketing capabilities are something they closely relate to marketing itself. Since marketing approach to business is necessary for the success, managers might see those two issues as extremely similar, and identify marketing with management. The other reason might lay in the ignorance toward marketing, and the fact that when they employ graduate, they want her/him to solve broad management issues, regardless of her/his major. While the leading positions are occupied by management area, unlikely, on the third place is creativity with also high number of responses. This is the main connection with marketing, since the creativity is the most visible element of marketing and most of the managers could identify marketing with creativity.

As previously stated, core skills mentioned by managers are in disagreement with the most beneficial graduate courses in marketing. On this list, first place by far, occupies sales and sales management, while marketing management is far down the list. Second most frequent course is strategic marketing planning. Out of this, we can conclude that there are two different types of managers, ones that follow the philosophy "blitz krigh" and they focus on "hard sell", while the other type of managers act according to "lose in short run in order to gain in a long run" and they are interested in strategic marketing planning. Furthermore, in every analysis, marketing and corporate communications, promotion and public relations, are ranked very high. Managers are aware of how important is to build a strong brand and positive image.

Acting upon this advice, managers in education should increase benefit from well known brand of MBA. Managers indicated that they prefer specialized MS program over the MBA when they were described and not named. After naming them as such, MBA becomes greatly preferred which is nothing but the brand recognition and bias towards this popular, world-wide known master program. As well as in Ellen and Pilling (2002) research, we found out that MBA students are more likely to receive job promotion then the MS graduates. This is also important advertising toll for marketing the MBA.

7. CONCLUSION

Number of graduate students is expanding faster than the market for traditional graduate jobs; graduates are more diverse in age, social background and motivations, while the labor market which they enter is more complex and volatile. There is no lack of enthusiasm for further education among students and graduates. Furthermore, it is emphasized that professional development is based around the requirement for graduates, their role within an organization

and the employers' needs. Enhancement of skills does not come purely from attending training courses, but a mix of learning and development approach can be beneficial.

Indeed, Harvey (1999) argues that a critical purpose of higher education is not so much the delivery of employable skills in some generic sense but the development of "critical lifelong learners". This, he maintains, enables students to go beyond the narrow, "safe" knowledge base of their academic discipline to the post-education world. Evetts (1998), for example, argues that "lifelong learning is motivated and planned activity of the individual (engineer) to ensure his/her own professional development". In conclusion it seems that the general consensus from higher education institutions is that the current and future employment market requires graduates to be equipped with a range of skills. Applicants need to be able to demonstrate their core transferable skills in addition to their academic success.

In the process of creating life long learners, at the University of Sarajevo, we should focus to promote MBA graduate study at the moment, since market is willing to recruit such a graduate.

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COMMITMENT AND LOYALTY IN MARKETING RELATIONSHIPS ON BUSINESS-TO-BUSINESS MARKETS

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1. INTRODUCTION

Markets are becoming increasingly competitive and firms are ever more concerned with customer retention and loyalty (Dick and Basu, 1994; Parvatiyar and Sheth, 2000). Not only it is easier to keep existing customers compared to acquiring new ones, but they also represent the best possibilities for profit growth. Additionally, several researchers (Heskett et al., 1997; Woodruff, 1997) have pointed out that customer loyalty is an important source of competitive advantage. Since firms strive to have loyal customers, one of the key questions that practitioners and researchers face is what makes customers loyal.

Commitment has become one of the most frequently studied variables in studies of buyer-seller marketing relationships on business-to-business markets (Gilliland and Bello, 2002; Kim and Frazier, 1997a; Morgan and Hunt, 1994; Wilson, 1995). While researchers of business-to-business relationships agree on the importance of this construct, differences exist in its conceptualization and operationalization (Gilliland and Bello, 2002; Kelly, 2004; Kim and Frazier, 1997a; Sharma et al., 2006). The majority of researchers have studied commitment as a global construct that measures the intention to continue the relationship. However, in the last ten years there have been some attempts to transfer findings from organizational psychology to marketing relationships and study commitment as consisting of three components (affective, calculative and normative) that reflect different motivations for continuing the relationship. Realization that commitment consists of three components has implications for management of customer relationships. Providers have to first realize that customers continue relationships due to three reasons: because they want to, because they feel they have to and because they feel they ought to. On the basis of this premise providers can develop appropriate tactics to influence different components of commitment (Bansal et al., 2004).

The purpose of this paper is to examine commitment as a three-dimensional construct, and test relationships between components of commitment and their influence on customer loyalty. We propose that commitment consists of three different components that have different effects on relationship outcomes. On the basis of results we propose implications for managers about developing appropriate tactics to influence those components of commitment

that favorably influence customer loyalty. The context of this study is marketing research industry in Slovenia. This study also aims to add to the knowledge on marketing relationships in marketing research industry. The scarcity of published work in this sector provides us with an interesting apparent paradox that firms that focus on gaining and understanding the requirements of their clients' customers may not be clear about the requirements of their own clients (Donnelly et al., 2000). The majority of published research was done in the context of the Western economies, while there is even less published work on this sector in transitional and post-transitional economies.

2. COMMITMENT AND LOYALTY

2.1. Commitment

Commitment has been defined as 'an implicit or explicit pledge of relational continuity between exchange partners' (Dwyer et al., 1987, p. 19). Moorman et al. (1992, p. 316) defined it as 'an enduring desire to maintain a valued relationship'. Common to the different definitions of commitment is that commitment is characterized by a disincentive to replace relationship partners (Young and Denize, 1995).

Definitional work on the construct of commitment began in the sociology and psychology disciplines. Sociologists focused on societal and social factors that constrained or committed individuals to a consistent line of activities (Becker, 1960; Kanter, 1968), while psychologists defined commitment in terms of decisions or cognitions that bind an individual to a behavioral disposition (Festinger, 1957; Kiesler, 1971; in Pritchard et al., 1999). Later on organizational behavior theorists defined commitment as intent to remain, along with certain personal and environmental factors that strengthen that intent. Commitment was inferred from the employee's beliefs, opinions and their level of intent to act in a particular way (Pritchard et al., 1999). Dwyer et al. (1987) and Wilson and Mummalaneni (1986) introduced the concept of commitment to marketing relationships literature (Rylander et al., 1997). However, we should not overlook that IMP Group researchers studied commitment in marketing relationships before that date (e.g. Håkansson, 1982).

Most researchers in marketing have conceptualized and operationalized commitment as a global construct. However, researchers observing relationships in organizational psychology have pointed out three distinct motivations underlying the desire for continuity (Allen and Meyer, 1990) and during the last decade there have been some attempts to transfer these findings to marketing relationships (Bansal et al., 2004; Berghäll, 2003; De Ruyter and Semeijn, 2002; De Ruyter and Wetzels, 1999; De Ruyter et al., 2001; Gilliland and Bello, 2002; Gounaris, 2005; Kim and Frazier, 1997a, 1997b; Kumar et al., 1994). The three components of commitment that are (to some extent or completely) included in these models are: *affective*, *calculative* and *moral* or *normative*. All these components of commitment pertain to psychological states, but they originate from different motivations for maintaining a relationship (Geyskens et al., 1996). An *affectively committed* partner wants to stay in the relationship because it likes the partner, enjoys the partnership and it feels a sense of loyalty and belongingness. A *calculatively committed* partner stays in the relationship because it feels it needs to given the significant anticipated termination or switching costs. And lastly, *normatively committed* partner stays in the relationships because it feels it ought to.

2.2. Loyalty

Loyalty has been defined as a construct that measures the probability that the buyer will return and is ready to perform partnering activities such as referrals (Bowen and Shoemaker, 2003). Some authors (Bolton et al., 2003; Lapierre et al., 1999; Woo and Ennew, 2004; Zeithaml et al., 1996) refer to a similar concept as *behavioral intentions* that include renewing the contract, making recommendations and increasing patronage (Bolton et al., 2003; Zeithaml et al., 1996). Jacoby and Kyner (1973, p. 2) define loyalty as '(1) biased (i.e., non-random) (2) behavioral response (i.e., purchase) (3) expressed over time (4) by some decision-making units (5) with respect to one or more alternative brands out of a set of such brands and (6) a function of psychological (decision-making, evaluative) processes.' Already in the 1960s researchers pointed out that loyalty could be seen as a combination of repeated purchase behavior and positive attitude towards the brand (Day, 1969). The majority of definitions of loyalty therefore include a behavioral and an attitudinal component. The reason for differing between behavioral and attitudinal definitions comes from the approach to studying loyalty that can be stochastic (loyalty is behavior) or deterministic (loyalty is attitude). Nevertheless, the majority of loyalty definitions reconcile the two approaches into one definition (Odin et al., 2001).

2.3. Relationship between commitment and loyalty

Researchers are not unanimous on the relationship between commitment and loyalty (see table 1). Some researchers believe that loyalty is the same as commitment; some think these two constructs are not even related and some that commitment is part of 'true' loyalty. However, the majority of researchers believe that these two constructs are related but different and that commitment is an antecedent of loyalty.

Table 1. Proposed relationships between commitment and loyalty

Relationship	Author(s)
No relationship	Oliva et al. (1992)
Synonyms	Morris et al. (2001); Sharma and Patterson (2000); Žabkar (1999)
Commitment is part of ('true') loyalty	Amine (1998); Assael (1998); Knox and Walker (2003); Kumar and Shah (2004); Oliver (1999); Shankar et al. (2003)
Loyalty is a part of commitment	Gilliland and Bello (2002); Anderson and Weitz (1992)
Commitment is antecedent of loyalty	Baldinger and Rubinson (1996); Bansal et al. (2004); Beatty et al. (1988); Bettencourt (1997); Bloemer and Kasper (1995); Bloemer and Odekerken-Schröder (2002, 2003); De Ruyter et al. (2001); Dube and Shoemaker (2000); Fullerton (2005b); Harrison-Walker (2001); Hennig-Thurau et al. (2002); Morris and Holman (1988); Odin et al. (2001); Pritchard et al. (1999); Too et al. (2001); Wetzels et al. (1998)

Researchers have more frequently studied the concept of loyalty in the context of consumer markets while the concept of commitment in the context of business-to-business markets (Liljander and Strandvik, 1995; Žabkar, 1999). Liljander and Strandvik (1995) point out that these two concepts are not synonyms but related constructs that originate from different research traditions. The main difference between consumer and business-to-business markets is that in the latter loyalty is usually more long-term oriented due to investments and adaptations in a relationship (Morris and Holman, 1988).

When trying to define the difference between commitment and loyalty we can say that commitment is predominantly cognitive and refers to the power of attitude (Pritchard et al., 1999; Beatty et al., 1988). Gruen (1995) proposes that commitment is more a motivator for behavior and not behavior as such. Bettencourt (1997) emphasizes that commitment is not a synonym for loyalty. Commitment is more an attitude the consequence of which is also loyalty. Looking at commitment as composed of different components enables us to separate commitment from loyalty. Using this conceptualization we can more transparently show how cognitive and affective antecedents affect future behavior (loyalty or disloyalty) (Zins, 2001). We can conclude that the main difference between loyalty and commitment is in that commitment includes predominantly motivation and attitude to continue a relationship (this attitude is then composed of different components) and we measure strength of this attitude. On the other hand, loyalty is a mixture of attitude and behavior that is most often defined as repeat patronage and referral behavior. In line with thinking of Too et al. (2001) we can say that a firm is committed to a relationship with another firm, while it is loyal to the firm as a provider or to its products and services.

2.4. Development of the hypotheses

We propose two sets of hypotheses. In the first set of hypotheses we propose relationships between components of commitment. Researchers in the area of organizational psychology, marketing relationships on business-to-business and business-to-consumer markets have found positive and strong correlation between affective and normative commitment (Bansal et al., 2004; Meyer et al., 2002; Kelly, 2004; Kumar et al., 1994). In line with these findings we also propose that these two constructs are positively correlated. Researchers have found mixed results regarding relationship between affective and calculative commitment. Kumar et al. (1994) found no correlation between calculative and affective commitment, while Kelly (2004) found this correlation to be positive. In line with Kumar et al. (1994) and in-depth interviews we assume these two components of commitment are not correlated. As for the relationship between normative and calculative commitment researchers have found moderate positive correlation between these two components of commitment (Kelly, 2004; Kumar et al., 1994). In line with these findings we propose positive correlation between calculative and normative commitment. Therefore, the following hypotheses are put forward:

H1: Affective and normative commitment are positively correlated.
H2: Affective and calculative commitment are not correlated.
H3: Calculative and normative commitment are positively correlated.

In the second set of hypotheses we propose relationships between components of commitment and loyalty. Empirical studies in relationship marketing show that commitment is a key antecedent of customer loyalty (Fullerton, 2005a). Wetzels et al. (1998) and De Ruyter et al. (2001) discovered that both affective and calculative commitment positively affect buyer's intention to continue the relationships. Kumar et al. (1994) also established that affective commitment has the most favorable influence on intention to stay in the relationship. Similarly, normative commitment positively influences intention to stay, while on the other hand, calculative commitment negatively influences the wish to continue the relationship. Affectively committed partner will invest more in the relationship, its effectiveness will be higher and it will be more resistant to opportunistic behavior. Positive effects of normative commitment are lesser than those of affective commitment, but normatively committed firm will be ready to continue relationship and invest it in. It will also not seek alternative providers. On the other hand, calculative commitment will negatively influence the wish to

continue relationship and invest in it. Calculatively committed company will also more actively seek alternative providers (Kumar et al., 1994). Gounaris (2005) similarly found different consequences of calculative and affective commitment. While affective commitment creates positive intentions that help to maintain and strengthen relationships, calculative commitment has just the opposite effects on behavioral intentions. One of possible explanations is that with creating dependence and locking customers in the relationship they feel trapped in a relationship. Wetzels et al. (1998) also found that creating affective commitment is the most important because it has the strongest effect on the customers' intentions to continue relationship and consequently on provider's revenues. Therefore, the following hypotheses are proposed:

H4: Affective commitment positively influences loyalty.
H5: Calculative commitment negatively influences loyalty.
H6: Normative commitment positively influences loyalty.

3. RESEARCH DESIGN

3.1. Measure development

In the exploratory research nine in-depth interviews were conducted on clients' side to get more insight into connections between the variables in our research. Using the findings from in-depth interviews and existing research in relationship marketing a structured questionnaire was designed. Operationalization of commitment components was based on Kumar et al. (1994), while operationalization of loyalty on Zeithaml et al. (1996). After a scale refinement in line with five experts' opinions the questionnaire was tested on ten members of the population.

The set of items for each construct was examined with exploratory factor analysis (principal axis factoring with varimax rotation) to identify items not belonging to the specified domain. Items with loading less than 0.50 and/or cross-loadings greater than 0.35 were discarded. *Reliability* of the measurements was estimated using Cronbach's α. The scale for calculative commitment (two-item scale measuring company's motivation to stay in the relationship due to a lack of alternatives) had moderate reliability (α = 0.70), the scale for normative commitment (three-item scale measuring motivation for staying in the relationship because the employees who work with the provider would feel guilty for changing the provider and because the company feels it ought to stay in the relationships) had very good reliability (α = 0.75), while the scales for affective commitment (four-item scale measuring company's motivation to stay in the relationship because it is pleasant to work with the provider, it enjoys the relationship and feels a sense of belongingness) (α = 0.84) and loyalty (five-item scale measuring repeat patronage and positive word of mouth) (α = 0.82) had exemplary reliability. *Validity* was estimated by performing exploratory factor analysis. On the basis of the factor analysis it was concluded that the internal consistency of operationalization of the variables of affective, calculative and normative commitment and loyalty, while not perfect, was sufficient to allow us use the summated variables in the subsequent analysis.

3.2. Sample and data collection

The context of this study is the marketing research industry in Slovenia. Data was gathered from managers responsible for marketing research in marketing research client companies. An e-mail with an invitation was sent to 500 addresses and later data was gathered through telephone interviews. The precondition for inclusion in the survey was that a firm had ordered at least one research project from a marketing research agency in the two previous years. Out of the 500 companies, only 230 fulfilled the conditions for inclusion in the survey. The others had not ordered research at marketing research agencies in the last two years. Data were gathered from March 2005 until July 2005. 150 telephone interviews were completed, with a response rate of 65.2 %. Due to the telephone interviewing we had control which firms were included in the sample (firms that are actually clients of marketing research providers) and who were our respondents (employees who were the most knowledgeable on this topic).

In order to ensure variability in marketing relationships included in the survey the respondents evaluated their relationship with the agency that carried out their most recent research project. The respondents were asked to answer the questions while keeping in mind the relationship with the provider of the last research they conducted. The respondents were asked to express their agreement with the given statements using a seven-point Likert-type scale (from 1 – not at all true, to 7 – completely true). Questionnaire also included questions about the size of the company, industry in which the company operates, duration of the relationship, number of years respondent spent working with this provider etc.

3.3. Sample characteristics

The majority of companies that responded to the questionnaire were providers of business services (24.7%), followed by manufacturing (23.3%) and trade companies (22%). The rest were providers of services for consumers (12.7%), services for both companies and consumers (11.3%) while 6% came from other industries. 40.7% of the companies had up to 50 employees; there were 24.7% of companies with 101-500 employees and 21.3% of companies with over 501 employees, while there were fewer companies with 51-100 employees (13.3%). The average duration of a relationship is 4.4 years. We also examined what is the value share of projects done by this provider among all research projects carried out with outside suppliers of market research. The average value share of research projects conducted by the studied agency is 76.1%. This means that the majority of respondents had described their relationship with their most important provider of market research.

4. RESULTS

Clients on average indicated the highest agreement with the statements measuring affective commitment (table 2). They expressed the highest agreement with the statement that they continue the relationship with the examined research agency because it is pleasant to work with that agency (mean 5.52), followed by other statements measuring affective commitment. Statements relating to calculative commitment had lower averages, all being below 4 that was the centre of the scale. Among these statements respondents expressed the highest average agreement with the statement that they stay with this research agency because there are no good alternatives (mean 3.02). Respondents expressed even lower agreement with statements

measuring normative commitment. Among these statements respondents expressed the highest average agreement with the statement that they feel a sense of duty to remain a client to this agency (mean 2.34). Out of all statements the respondents expressed the lowest agreement with the statement that it would be dishonorable to leave that agency even if it were to their firm's advantage (mean 1.79). We can conclude that clients of market research firms continue relationships out of emotional reasons, while calculative and normative reasons (as measured in this research) do not play a significant role.

Among variables measuring loyalty (table 3) respondents on average expressed the highest agreement that they had said positive things about this agency to their colleagues from other firms (mean 5.34), followed by recommending this agency to their colleagues from other firms who had sought their advice (mean 5.14). On average respondents expressed the lowest agreement with the statement that they encouraged other firms to do business with that agency (mean 3.27). We can conclude that respondents on average engaged in positive word of mouth behavior, while they were not so confident about working with this research agency in the future.

Table 2. Descriptive statistics for measurement variables of commitment components

Variable	Mean	Std. deviation
It is pleasant working with the agency, that's why we continue to work with them (acom1).	5.52	1.32
We want to remain a client of this agency because we genuinely enjoy our relationship with the agency (acom3).	4.83	1.56
Our decision to remain a client of this company is based on our attraction to the things the agency stands for as a company (acom2).	4.77	1.54
Because we like working with the agency we want to remain their client (acom4).	4.63	1.58
It is too difficult to switch to another agency because of the lack of good alternatives; therefore we are staying with the agency; otherwise we'd consider leaving (ccom4).	3.02	1.93
We feel a sense of duty to remain a client to this agency (ncom2).	2.34	1.51
Right now, staying with the agency is a matter of necessity since no feasible alternatives exist (ccom1).	2.31	1.93
Employees who work with the agency would feel guilty if we dropped them as a supplier (ncom1).	2.28	1.54
Even if it were to our firm's advantage, we feel it would be dishonorable if we were to leave the agency (ncom4).	1.79	1.17

Table 3. Descriptive statistics for measurement variables of loyalty

Variable	Mean	Std. Deviation
I told positive things about this research agency to my colleagues from other firms (loy1).	5.34	1.64
I recommended this research agency to colleagues who sought my advice (loy2).	5.14	1.97
Our firm considers this research agency as the first choice when buying market research services (loy4).	4.73	1.78
It is probable that our firm will increase business with this research agency in the following few years (loy5).	4.33	1.72
I encouraged other firms to do business with this research agency (loy3).	3.27	1.99

In the first set of hypotheses we tested relationships among components of commitment (table 4). First, results reveal a positive correlation between affective and normative commitment (H1 is supported). Our results are in line with several other studies (Bansal et al., 2004; Meyer et al., 2002; Kelly, 2004; Kumar et al., 1994); however, in our case this correlation was weak, while other studies found a moderate to strong correlation between these two constructs. Second, the correlation between affective and calculative commitment is also weak but negative. This is contrary to the proposed hypothesis (H2 is not supported) and findings of other researchers. For example, Kumar et al. (1994) found no correlation, while Kelly (2004) found positive correlation between these two constructs. Lastly, we proposed a positive correlation between normative and calculative commitment (Kelly, 2004; Kumar et al., 1994), while the results show this correlation is not statistically significant. H3 is as therefore not supported.

Table 4. Results of hypothesis testing among components of commitment

Hypothesis	Proposed correlation	Correlation coefficient	Result
Affective commitment – normative commitment (H1)	+	0.33 ($p = 0.00$)	Supported
Affective commitment – calculative commitment (H2)	0	-0.32 ($p = 0.00$)	Not supported
Calculative commitment – normative commitment (H3)	+	0.09 ($p = 0.13$)	Not supported

Relationships between components of commitment and loyalty were tested using a multiple regression analysis. We used summated variables as explained in chapter 3.1. *Enter* method was used for entering independent variables in the analysis. Regression coefficient for affective commitment and constant are statistically significant. On the other hand, regression coefficients for calculative and normative commitment are not, indicating that these two constructs have no statistically significant effect on loyalty (table 6). Results therefore show that only affective commitment is a significant predictor of customer loyalty. With affective commitment we can explain 33.5% of variance in loyalty (table 5). We can conclude that affective commitment is relatively strongly correlated with loyalty and it is a relatively good predictor for this dependent variable. H4 is therefore supported, while H5 and H6 are not supported. Our findings regarding the influence of affective commitment are in line with findings of De Ruyter et al. (2001), Gounaris (2005), Kumar et al. (1994) and Wetzels et al. (1998). On the other hand, our findings regarding calculative commitment are not in line with findings of researchers in other contexts. While some researchers (Gounaris, 2005; Kumar et al., 1994) discovered a negative influence and some (De Ruyter et al., 2001; Wetzels et al., 1998) a positive influence of calculative commitment on loyalty, the results of this study indicate there is no statistically significant relationship between these two constructs.

Table 5. Regression model for loyalty to research agency

Model	R	R^2	Adj. R^2	Std. error
1	0.59(a)	0.35	0.34	5.63

(a) Independent variables: (constant), affective commitment, calculative commitment, normative commitment

Table 6. Standardized regression coefficients for loyalty to marketing research provider

Model	Variable	Unstandardized coefficients		Standardized coefficients		
		B	Std. error	Beta	t	*Sig.*
1	(Constant)	7,43	2,36		3,15	0,00
	Affective commitment	0,79	0,11	0,56	7,36	0,00
	Calculative commitment	-0,10	0,15	-0,05	-0,71	0,48
	Normative commitment	0,06	0,14	0,03	0,42	0,68

Dependent variable: loyalty

5. CONCLUSIONS

The purpose of this paper was to examine commitment as a three-dimensional construct, and test relationships between components of commitment and their influence on behavioral intentions of customers. We proposed that commitment consists of three different components that have different effects on relationship outcomes (customer loyalty). Results of our study confirm our thesis that components of commitment are different constructs. Affective commitment is weakly positively correlated with normative and weakly negatively with calculative commitment; while the correlation between calculative and normative commitment is not statistically significant. Results also show that these three components of commitment have different effects on customer loyalty. Out of the three components only affective commitment was found to have a statistically significant influence on customer loyalty.

Our results therefore confirm the dominant role of affective commitment in marketing relationships. Results of our study are in line with Sharma et al.'s (2006) conclusion made on the basis of literature review that affective commitment is stronger and plays a more important role than other types of motives in developing and maintaining long-term relationships. Affective commitment was also found to be the strongest motivator for customer loyalty in studies done by De Ruyter et al. (2001), Gounaris (2005), Kumar et al. (1994) and Wetzels et al. (1998). As Berghäll (2003) points out relationship-marketing tools are necessary only in situations when emotional elements enter into evaluation of the relationship. This is a consequence of a theoretical premise that emotional involvement extends marketing relationship from a transaction-based to the real 'relationship', when feelings are involved.

On the other hand, results of this study indicate negligible roles of calculative and normative commitment in relationships between marketing research agencies and their clients. The reason why calculative commitment was found to be low among clients of marketing research agencies could lie in the structure of the market. According to findings from in-depth interviews clients of marketing research agencies in Slovenia believe that there is an adequate number of marketing research providers in the market and that their offers are competitive. The lack of alternatives is therefore not a significant motivator to continue a relationship with marketing research agencies in Slovenian market.

As for normative commitment, most researchers on business-to-business markets (with the exception of Kumar et al. (1994) and De Ruyter and Semeijn (2002)) did not even include this

component in relationship models. The reason could be related to culture. Meyer and Allen (1997) propose that normative commitment plays an important role in cultures that are highly collective according to Hofstede's classification. Although Hofstede's data for Slovenia from 1971 indicate strong collectivism (IDV = 27), high uncertainty avoidance (UAI = 88), high power distance (PDI = 71) and a feminine value set (MAS = 17) (Hofstede, 2001), more recent research has revealed the very opposite results: very high individualism (IDV = 107.7), together with high uncertainty avoidance (UAI = 71.7), low power distance (PDI = 27.8), a feminine value set (MAS = 20.3) and a relatively strong short-term orientation (LTO = 32.6) (Jazbec, 2005). One could conclude that during the transition period Slovenian culture apparently changed and became more similar to the cultures of Western countries. Clustering further revealed that the Slovenian business culture closely resembles some cultures of developed old EU members (Jazbec, 2005).

On the basis of these results we cannot rule out studies that measured commitment as a global construct (implicitly measuring affective component) as inappropriate. Future research is needed to explore antecedents of the three components of commitment and test them all in a model. While the narrow focus on commitment as one construct helps us understand marketing relationships the multi-component view of commitment should give us deeper understanding of marketing relationships (Fullerton, 2005b). Bansal et al. (2004) maintain that conceptualization of commitment with three components more fully captures domain of commitment.

As for managerial implications, knowing that commitment consists of multiple components, marketing managers can attempt to increase the component of commitment that has the most favorable effects on customer loyalty. Consequently they can keep their customers and achieve profits (Kelly, 2004). An important implication for managers of marketing research firms is that affective commitment is the most important one for customer loyalty.

While this research answers some questions, it at the same time opens new ones. Future research should undertake qualitative interviews to further explore the normative and calculative components of commitment and seek to identify their antecedents. Although the existing literature has already lifted the veil, more empirical study is needed for a new model to be built and tested. Special attention should also be paid to the operationalization of normative and especially calculative commitment since other researchers (e.g. Meyer et al., 2002) in the area of organizational behavior selection point to problems with the current operationalization of calculative commitment.

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CUSTOMER ORIENTATION, CUSTOMER SATISFACTION AND PERFORMANCE
THE CASE OF CROATIA

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1. CUSTOMER ORIENTATION: STARTING POINT

Some authors consider customer orientation as equivalent to market orientation (Kohli, Jaworski, 1990, p.3, Deshpande, Farley, Webster, 1993, p.33, Webster, 1992, p.10, Shapiro, 1998, p.119, Deshpande, Farley, 1999b, p.228) because customer is the central element of market orientation research (Kohli, Jaworski, 1990, p.3). Thus according to Kohli and Jaworski (1990, p.3) customer and market orientation have the same definition and that is that market orientation refers to the "organizationwide generation, dissemination and responsiveness to market intelligence". Overall process represents collecting market information and information about customers' present and future needs and preferences.

Some authors consider market and customer orientation as synonyms because of the marketing concept itself. Marketing concept represents "intention to identify and understand customers' needs and wants as well as intention to adapt some of marketing mix elements, including product, and all that in the purpose of needs and wants satisfaction" (Houston, 1986, p.86). Number of authors point out that market orientation is a marketing concept implementation. From that view, the simultaneous and interchange use of market and customer orientation for the same phenomenon is not surprising. Everything is about customers, so there is no solid reason to distinguish between these two orientations when they really represent the same view for doing business.

Other authors believe that there is a difference between market and customer orientation and that market orientation (Narver, Slater, 1990, p.21) "consist of customer orientation,

competitor orientation and interfunctional coordination". Further more, these authors emphasize that companies constantly need to create superior value for its target customers, which is possible with coordination of collected information about consumers and competitors. Following Narver and Slater (1990, p.22) customer orientation includes "all of the activities involved in acquiring information about consumers in the target market and disseminating it throughout the business (es)". This helps increase the possibility to create superior value for customer. Acquiring information that develops customers' knowledge is a continuous process. In order to satisfy customers it is necessary for a company to recognize their value chain, anticipate their future needs as well as recognize potential customers. Narver and Slater (1990, p.21) emphasize customer orientation but they say that all three elements are equally important. However, Siguaw, Diamantopoulos (1995, p.85) and Hajjat (2002, p.429) have a different view and emphasize that customer orientation is the key component of market oriented business.

Deshpande, Farley and Webster (1993, p.5) offer a different view. They say that customer orientation is "set of beliefs that put the customer's interest first, while not excluding those of all other stakeholders such as owners, managers and employees, in order to develop a long-term profitable enterprise". They stress, that a company need to focus on information about needs, values and beliefs not only from actual but as well as from potential customers. Company needs this for customer orientation to become a part of its corporate culture and as a starting point for its development and growth.

Furthermore, customer orientation is an organizational culture that emphasizes customer as a central/key point for a strategic planning and implementation (Chen et al., 2004, p.414, Nwankwo, 1995, p.7) and as an incentive for developing company's sustainable competitive advantage (Appiah-Adu, Singh, 1998, p.387). Respectively, company need to have customer-oriented culture to provide superior value for customers.

Success in providing superior value for customers derives from researching their needs, wants and preferences. This is a source for company's innovativeness. Furthermore, turbulent market and non-rational consumers that are under market environment influences (Dickinson, Herbst, O'Shaughnessy, 1986, p.18, Nwankwo, 1995, p.8), impose a need for company to monitor competition.

Collected market information facilitates company efforts in providing more satisfaction to customers than competitor (Siguaw, Brown, 1994, p.107). This is possible, if company uses market information to adapt products and services in order to provide customers with superior value than competitors. Company innovativeness is essential for developing new products that can delight customers. By doing this, company is becoming leader in providing superior value to customers (Vandermerwe, 2003, p.263) as well in setting standards for others to follow.

Following some authors, customer orientation components are (Narver, Slater, 1990, p.13, Deshpande, Farley, Webster, 1993, p.34, Siguaw, Brown, 1994, p.110, Egan, Shipley, 1995, p.809, Daniel, Darby, 1997, p.132,144, Appiah-Adu, Singh, 1998, p.388, Hajjat, 2002, Rindfleisch, Moorman, 2003, p.422, Caruana, Pitt, Ewing, 2003, p.26, Chen et al., 2004, p.417, Dulaimi, 2005, p.3):

1. associated with consumers – business oriented toward customers, knowing customers and their product value, serving customers and putting their interest in first place, constant consumers needs, consumers characteristics, quality consumer base, devoted

consumers, understanding consumers needs, satisfaction, measuring satisfaction, relationship with consumers, consumers response;

2. associated with competition – acquainted competitors, possessing best products in industry, competition concentration;

3. associated with market – routine or regular measurement of consumer services, using market information for product development, market competition based on product or service differentiation, market dynamics;

4. associated with product and services – quality, providing reliable services, services system, image and reputation (as well as company's), post-sales service, services evaluation, product/services characteristics, value characteristics;

5. associated with employees – communication and contact with consumers, flexible activities, skills, constant promotions, job attitude, job satisfaction;

6. associated with company – creating superior value for customers, researching customers, company business transparency and company quality.

Consumer orientation active realization creates consumer base of knowledge. Company has to use base of knowledge to create products and services that can provide satisfaction to present customers' needs and wants. Company has to take care about present, potential and unexpressed consumer needs and wants. In order to accomplish that it has to research present, past and potential consumers (Shmalensee, 1992, p.130). Received information from customers, company must record and store for usage in business process (Davenport, Harris, Kohli, 2001, p.16). Using and responding upon collected information (Brandt, 1992, p.90) allow company to modify supply to provide satisfaction and superior value to consumers.

Customer knowledge base is developed and replenished constantly. In this process, important role have employees when they communicate (Brandt, 1992, p.90) and develop relationships (Day, 1998, p.8, Slater, 2001, p.230) with customers. However, employees must have access to collected information that they can use it in their interaction with customers. It can be said that employees help company to create long-term relationships with consumers that contribute to company success and that all departments together create company business results (Pitta, Franzak, Little, 2004, p.514).

Besides collecting information about customers, company has to take care about competitors' efforts and other market influences (Kohli, Jaworski, 1990, p.4) that are directed towards customer satisfaction, can drag customers' away (Day, 1999, p.16) as well as modify their needs and wants. In order to minimize these influences, company monitor changes in market environment and actively seek opportunities to adapt to new market situation so that can provide superior value for target customers (Narver, Jacobson, Slater, 1999, p.199). Moreover, market oriented company can better respond to new events and trends in the environment (Day, 1994, p.43).In such a way, it can keep present and attract new customers.

It is important for company to implement lifelong value concept. Essence of this concept is that company need to observe customer not as a single transaction (Vandermerwe, 2003, p.264) but it is important to develop relationships with them and to implement continuous value giving behavior. Developing customer knowledge base helps company in simultaneous value creation and to use that collected knowledge for improving business.

Therefore, customer orientation includes customer needs and wants satisfaction; anticipation of these needs so that consumer expectations can be satisfied and changing marketing-activities to keep up on unstable consumers needs and changes in market environment. This

requires a continuous track in customers' need as a base for innovation and constant satisfaction improvements.

2. CUSTOMER ORIENTATION AND COMPETITIVE ADVANTAGES

Customer, as a centre of customer orientation, guides company business. This implies strategic flexibility as a prerequisite for company response in dynamic competitive environment (Wang, Lo, 2003, p.496). To achieve and maintain competitive advantage, a company must be adaptive and respond upon market changes (Akimova, 2000, p.1130), create advantages in marketing-mix and demonstrate more efficiency than competitors (Akimova, 2000, p.1146). Company's capabilities help develop sustainable competitive advantage and grow profitability (Day, 1994, p.40). Developed and sustained competitive advantage (Slater, Narver, 1994a, p.22) for outcome generate superior businesses results.

Appreciating different authors' views, customer orientation implementation creates competitive advantages classified into four groups:

1. competitive advantages related to product

Company innovativeness manifests in developing products tailored to customers' needs and wants. When company research customers it gets information about satisfaction and then starts process of value creation. We can say, that successful market innovation foster company business results (Deshpande, Farley, Webster, 1993, p.23, Slater, Narver, 1994a, p.25) as well as increases a level of company's customer orientation (Han, Kim, Srivastava, 1998, p.40, Appiah-Adu, Singh, 1998, p.387).

Moreover, company has to observe competition because of its influence on customers (Wang, Lo, 2003, p.491) as well as on company's competitive capability (Hunt, Morgan, 1995, p.8). Continuous customers' monitoring offer different insights about product quality requirements and need for their modification (Wang, Lo, 2003, p.487, Hunt, Morgan, 1995, p.8, Caruana, Pitt, Ewing, 2003, p.36, Appiah-Adu, Singh, 1998, p.391). In order to bring satisfaction to customers, competitive strategy needs to incorporate customers perceived level of product quality (Slater, Narver, 1994a, p.25).

2. competitive advantages related to customers

Generating customer satisfaction creates a satisfied customer base and provides company more information for adjusting product and services to changing customers' needs and wants (Pelham, Wilson, 1999, p.169, Wang, Lo, 2003, p.487). Collected information about customers and their value chain (Deshpande, Farley, Webster, 1993, p.23) is disseminated trough the company and used to respond and modify company's offer (Day, 1994, p.43). Company can develop superior characteristics in providing customer value and this implies that customer knowledge represents competitive advantage (Webster, 1992, p.12, Wang, Lo, 2003, p.495, Davenport, Harris, Kohli, 2001).

Offering satisfaction to customers generates relationship with company (Day, 1994, p.44). On one side, we have satisfied customers and on other, relevant information's source for company. We can say, that creating relationships (Day, 2003, p.82) and relationships

themselves are important strategic resource for company (Webster, 1992, p.1) as well as that managing relationships in value chain is becoming important in defining company key capabilities.

By using relationships with customers, market research is becoming continuous process aimed at collecting information for providing unexpected superior satisfaction (Narver, Jacobson, Slater, 1999, p.201) which helps creating customer loyalty (Wang, Lo, 2003, p.486, Slater, Narver, 1994a, p.25). Company has no urge to invest large amount of capital in attracting new customers because present loyal customers promote company on regular basis (Appiah-Adu, Singh, 1998, p.391, Hill, Alexander, 2003, p.17). This reduces costs and increases company profit (Wang, Lo, 2003, p.489, Caruana, Pitt, Ewing, 2003, p.32) and for all this it customer loyalty represents competitive advantage.

3. competitive advantages related to employees

Company oriented in providing customers satisfaction need to educate their employees so that they can offer superior satisfaction to customers. First step in this process of education is to create satisfied employees. Employees' education is an investment that will increase their competitive capabilities (Slater, Narver, 1995, p.70) as well as competitive capabilities of a company (Day, 1994, p.47).

Empowered and involved in decision-making process employees (Day, 1994, p.46) can more successfully implement customer orientation (Wang, Lo, 2003, p.486) because of their quick response in adjusting service to customers' requirements. If employees are wise and well-managed important changes in culture are happening on regular basis and this indicate need to be empowered (Prestoungrange, 2000, p.94).

4. competitive advantages related to company capabilities

Companies that are implementing customer orientation aim at achieving more customer satisfaction (Wang, Lo, 2003, p.485). Their value system direction is toward customers and this is why it represents company competitive advantage (Webster, 1992, p.12). Collecting and processing information about customers (Slater, Narver, 1994b, p.50) is important. This information helps company to learn how to adapt its business to market opportunities in order to be more successful.

Learning culture is important for company consumers because learning direction is toward understanding and efficient satisfaction of present and future customers needs through new products, services or in some other way (Slater, Narver, 1995, p.71). A company with superior learning skills adapts to market environment changes in a more rapid manner. Emphasis is not only on collecting information's about customers but also on monitoring competition, market environment forces, business partners and stakeholders (Slater, Narver, 1995, p.69).

Customer orientation assists company in developing competitive advantages that derive from providing customer satisfaction. A prerequisite for providing value to customers is developing capabilities that differentiate company from competitors and in the long-run nurture competitive advantage. Company has to monitor market environment changes, respond upon them and at the same time research and fulfill customers' needs and wants. Therefore, basic

capabilities are within company however, it is necessary to adapt them to become sustainable so that in the end company can gain competitive advantage using customer orientation.

3. CREATING CUSTOMER SATISFACTION

Customers give life to company because company's objective is to provide satisfaction as well as to fulfill their needs (Webster, 1992, p.11). Frequent found in satisfaction definitions is comparison and evaluation. Evaluation is subjective and following different authors' customer evaluates and compare:

- level of expectation (adaptability) and experience perception (Oliver, 1980, p.461, Oliver, Linda, 1981, p.90),
- surprises which include product buying and/or use experience (Oliver, 1981, p.27),
- expectation and perception of product performances (Fornell, 1992, p.12, Oliva, Oliver, MacMillan, 1992, p.86),
- present quality and past satisfaction (Anderson, Fornell, Lehmann, 1994, p.63),
- customer's demand and total product performance (Hill, Alexander, 2003, p.30).

Besides analyzing satisfaction through one transaction value, some authors study satisfaction from cumulative perspective. So they:

- compare obtained product characteristics with past satisfaction (Anderson, Fornell, Lehmann, 1994, p.63) or past consumption (Andreassen, 1994, p.18),
- use cognitive and cognition evaluation based on personal experience in paste interactions with company (Storbacka, Strandvik, Grönroos, 1994, p.25) and
- compare product performance perception, expectations and past satisfaction (Johnson, Anderson, Fornell, 1995, p.696) during interactions with company.

Single transaction or cumulative perspective (Anderson, Fornell, Lehmann, 1994, p.54, Wang, Lo, 2003, p.488) is a way to monitor customer satisfaction. Single transaction perspective stresses the satisfaction after interaction and from this perspective, satisfaction is seen as a transaction result. On the other hand, cumulative perspective observes satisfaction for longer period and monitors customers' satisfaction in all interactions. Therefore, cumulative perspective is giving a company a possibility to manage customer satisfaction and in that period create relationships. Relationships give company a possibility to nurture customer satisfaction as well as to influence business performance.

Process of generation of customer satisfaction creates benefits for company (Zeithaml, 1988, p.4, Oliver, 1980, p.464, Fornell, 1992, p.11, Oliva, Oliver, MacMillan, 1992, p.87, Storbacka, Strandvik, Grönroos, 1994, p.23, Andreassen, 1994, p.18, Anderson, Fornell, 2000, p.871):

- Customer side – increased loyalty, reduced customer price elasticity, immunity toward competitors' efforts, reduced transaction costs, positive attitude towards company and its products, low number of customers that leave company, customers increased buying company products,
- Company side – reduced costs for mistakes in functioning and in products, reduced costs for attracting new customers, enlarged costs for competitors, reduced employees

leaving, growing company reputation, making strong and long relationships with company.

In this process, manifested benefits are for company and its functioning as well as for customers and their relation toward company.

Precondition for satisfaction is a process of creating and providing value for customers (Wang, Lo, 2003, p.485, Day, 1998, p.8) greater than competitors' (Brannback, 1997, p.296). Moreover, value created in interactions with company produces customer satisfaction. It is important to discover determinants of satisfaction as well as elements of satisfaction. Understanding elements of satisfaction, i.e. what makes customer satisfied, can help company to manage satisfaction in order to keep customers. Different elements influence satisfaction and we can group them in four categories:

- needs, wants and expectations - expectations need to be satisfied (Anderson, Fornell, Lehmann, 1994, p.54, Andreassen, 1994, p.18, Johnson, Anderson, Fornell, 1995, p.699-700); anticipated, present and past experience (Anderson, Fornell, Lehmann, 1994, p.54); product experience (Johnson, Anderson, Fornell, 1995, p.699-700);
- product/service elements - price (Zeithaml, 1988, p.4, Anderson, Fornell, Lehmann, 1994, p.54); perceived quality (Zeithaml, 1988, p.4, Cronin, Taylor, 1992, p.64, Storbacka, Strandvik, Grönroos, 1994, p.23, Oliver, 1996, p.145, Anderson, Fornell, 2000, p.872); product/service value (Zeithaml, 1988, p.4, Anderson, Fornell, Lehmann, 1994, p.54, Oliver, 1996, p.145, Anderson, Fornell, 2000, p.872); total product characteristics (Andreassen, 1994, p.18, Oliva, Oliver, 1995, p.107, Johnson, Anderson, Fornell, 1995, p.699-700);
- employee satisfaction – creating relationships with customers (Day, 1998, p.8, Slater, 2001, p.230); employee behavior that induces customer satisfaction (Lindgreen, Crawford, 1999, p.237);
- business practice as an element that in interaction with customers creates satisfaction – perception of satisfied customers as investment (Fornell, 1992, p.11); perception of customers as company assets (Anderson, Fornell, Lehmann, 1994, p.55).

All these elements in joint interaction create customer satisfaction.

However, satisfaction is not enough. Satisfied customers are just the beginning of company's intentions to keep customers. From customer satisfacion emerges customer loyalty. To develop customer loyalty, it is important to start the process with satisfaction, because satisfaction (Fornell, 1992, p.12, Diller, 2000, p.30, Hill, Alexander, 2003, p.25) and delivering superior value (Reichheld, 2001a, p.20) that creates sense of satisfaction are preconditions of loyalty. Loyalty and satisfaction are linearly connected, i.e. loyalty is succeeding satisfaction.

Positive influence of loyalty on business performance induces process of loyalty creation. Among others, advantages from loyalty are (Reichheld, 1996a, p.12, Griffin, 1997, p.31, Diller, 2000, p.32, Reichheld, 2001a, p.39, Reichheld, 2001b, p.9-12, Hill, Alexander, 2003, p.17): more security, company and profitability growth.

As stated earlier, value creation process represents customer satisfaction starting point. Alongside with satisfaction company creates loyalty (Reichheld, 2001b, p.12) through process of generating superior value for customers (Reichheld, 1996a, p.12). This influences business

performance and generates sustainable business profitability. Beside that, company must be loyal and dedicated to its customers (Hill, Alexander, 2003, p.20). Particularly, only through total devotion in fulfilling customers' needs and wants and by this creating satisfaction, company develop customer base that creates loyalty and positively influence business performance.

From the theoretical background stated the following model emerged, tested in the field research.
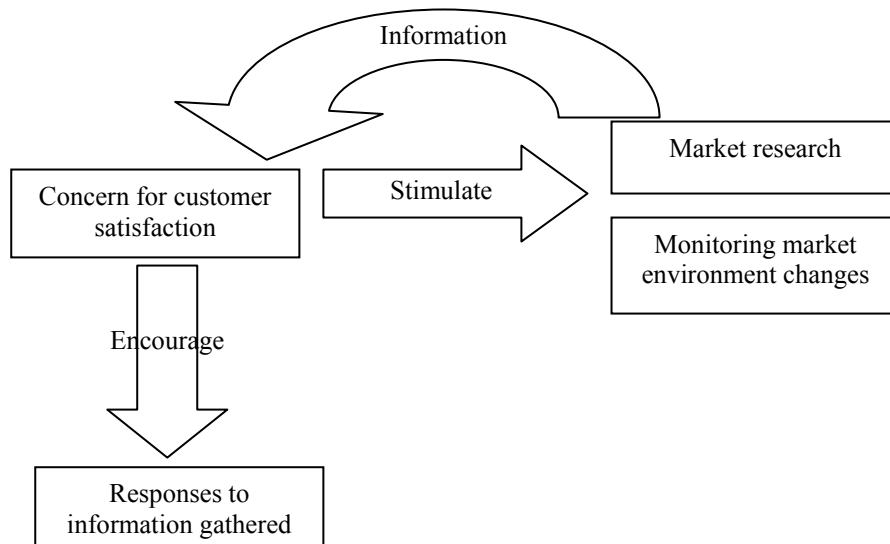
Figure 1. Conceptual model

4. RESEARCH ON CUSTOMER ORIENTATION IN CROATIAN COMPANIES

In their work, many authors indicate that customer interests are starting point for customer orientation (Deshpande, Farley, Webster, 1993), to be precise, their needs and wants fulfilment (Pelham, Wilson, 1999, Wang, Lo, 2003). Therefore, concern for customer satisfaction represents customer orientation foundation.

For successful customer satisfaction process, it is necessary to monitor market dynamics (Kohli, Jaworski, 1990, Deshpande, Farley, Webster, 1993, Pitta, Franzak, Little, 2004), as well as to monitor market environment changes so that company can achieve better business performance from their competitors (Siguaw, Brown, 1994, Wang, Lo, 2003). That is the reason why company must monitor market environment changes.

Some authors in their work imply that market research is necessary to apply for company that wants to fulfill customers' needs and wants in order to satisfy them. Beside market research, company must use additional mechanisms of collecting customers' information (Narver, Slater, 1990, Slater, Narver, 1994b, Nwankwo, 1995, Dulaimi, 2005).

Company responds to gathered market information and uses it for satisfying customers' needs and wants. This affirm authors like Kohli, Jaworski (1990), Day (1994), Narver, Jacobson, Slater (1999), Davenport, Harris, Kohli (2001).

Following from this, we tested the hypothesis:

H1: Among Croatian companies, there are different dimensions of customer orientation present.

Starting point for customer satisfaction concern is a development of a frequent customer's base that determines company success (Narver, Slater, 1990, Reichheld, 2001a). For that success, it is important to appreciate market environment changes, to apply market research and for company to respond to information gathered (Deshpande, Farley, Webster, 1993, Appiah-Adu, Singh, 1998, Reichheld, 2001b). Considering this, we place the following hypothesis:

H2: Business results are associated with customer orientation implementation.

4.1. Research methodology and sample

Information was collected using mail survey in period between January and October 2003. During that period, we collected 112 questionnaires. Sample was rather small and consisted of 270 small and medium enterprises from Croatia. Sample size was determined from the following:

1. project "Transformation by marketing management" ensues from "SMEs' market orientation-an answer to environmental dynamics" project, during which similar research was carried out,
2. in order to perform history analysis, sample was determined from 326 companies that participated in previous research,
3. after retrieving information about companies, 270 subjects were suitable for sending questionnaires.

Between 1997, when the first research was conducted, and 2003, some changes in the market environment have happened resulting in 244 companies in the final sample. Number of collected questionnaires, after five waves of telephone calls, was 112 and that represents 45.9% response rate. This response rate is a result of consistent efforts to obtain answers from rather small population.

The structure of the sample is the following: according to company core business we have 74.55% manufacturing, 10% trade, 14.55% services companies and less than 1% other industries. Analyzed companies mostly sell products to endconsumers and intermediaries (55.14%), followed by 25.23% companies that sell only to endconsumers and 19.63% companies that sell to intermediaries.

Average annual growth in profits for last 3 years from 1-5% has 36.08% companies, followed by 24.74% companies with less than 1% growth. As percentage of average annual growth is rising, number of companies with that growth is decreasing.

No sales from new products introduced in the last five years or no response accounted to 34.82% of companies. For 1-10% sales from new products, we have 21.43% companies. It is interesting that in 6.25% companies, 71-80% sales are attributed to new products introduced in last 5 years.

In the last five years, 39.64% of companies have 1-10% employees participated in training programs and seminars for job skill development. It is interesting that 24.32% companies never sent its employees to any kind of training programs. As percentage of employees participated in training programs and seminars in company are rising, number of companies in the category is decreasing.

4.2. Hypothesis testing

Among Croatian companies, there are different dimensions of customer orientation present.

Multivariate factor analysis was used for testing stated hypothesis. We used principal axis factoring, rotation method Oblimin with Kaiser Normalization and extracted factors by Scree plot and Kaiser-Gutman criterion. Maintained four factors explain 50.5% variance of analyzed scale.

Analyzed sample isolates four factors. Also measures of sampling adequacy (KMO coefficient greater than 0.7) and test of Sphericity are satisfied. Although sample consists of 112 companies, only 90 answered questions for all analyzed variables. With 18 variables grouped into four factors, the condition for ratio between the number of subjects and number of analyzed variables is satisfied.

In factor matrix, factor saturations are arranged by magnitude and those under 0.3 are left out in order to get better matrix clearness as well as to easier separate portions of the same factor. Table 1 represents factor analsyis results for customer orientation subscales.

Although two factors have high saturations on only three portions, (manifested measures of customer orientation) Cronbach's alpha reliability analysis allows further statistical analysis.

Correlation analysis reveals high and statistically significant ($p < 0.01$) correlation between four factors (Table 2).

Table 1. Factor analysis results for customer orientation subscales

	Factor			
	Concern for customer satisfaction	**Monitoring market environment changes**	**Application of market research**	**Responses to information gathered**
first to change with customer changes	,667			
measure customer satisfaction to modify products/services	,655			
respond immediately to competitor offerings	,654			
use customer complaint system to change product/services	,512			
significant changes in products	,430			
customer satisfaction used to evaluate managers performance	,406			,370
customers evaluate quality of products/services	,374			
rapidly detect customer changes in the environment		-,813		
rapidly detect changes in customer preferences		-,653		
evaluate changes in the environment that effect customers		-,541		
apply in-house markt research			,738	
4P's rely heavily on customers surveys			,524	
use Internet to collect information about potential customers			,454	
meet customers once a year to find future needs			,419	
set customer satisfaction goals per each period			,347	
distributing customer satisfaction information through company				,723
reinvest profits in product development				,652
big changes customer/market known in short time				,528
Eigenvalue	6,439	1,074	,915	,654
% of variance explained	35,774	5,965	5,082	3,633

Extraction method: Principal Axis Factoring. Rotation method: Oblimin with Kaiser Normalization. Rotation converged in 12 iterations.

Table 2. Descriptive data, reliability and correlations among customer orientation scales

	M	**σ**	**α**	**Concern for customer satisfaction**	**Monitoring market environment changes**	**Application of market research**	**Responses to information gathered**
Concern for customer satisfaction	24,47	5,766	0,8204	1			
Monitoring market environment changes	10,89	2,773	0,7775	,592**	1		
Application of market research	15,94	4,754	0,7706	,598**	,546**	1	
Responses to information gathered	11,20	2,901	0,7515	,559**	,413**	,511**	1

N=94 to 102; ** $p<0.01$ for all correlations

Business results are associated with customer orientation implementation.

Table 3. Customer orientation dimensions and companies with different average profit growth in last three years

	Average annual profit growth in last 3 years			
	less than 1%	**1-5%**	**6 and more %**	**ANOVA**
Concern for customer satisfaction	21,20	24,57	27,05	$F(2,84)=8,555**$
Monitoring market environment changes	9,86	10,55	12,18	$F(2,83)=6,081**$
Application of market research	13,19	15,90	17,83	$F(2,84)=6,630**$
Responses to information gathered	10,27	11,58	12,06	$F(2,85)=3,284*$

** $p<0.01$; * $p<0.05$

ANOVA results show that companies with low (less than 1%), middle (1-5%) and high (6 and more %) average annual profit growth in last three years statistically significant differ in concern for customer satisfaction. Companies that are slightly concerned about customer satisfaction have low average annual profit growth in the last three years. Companies that are somehow concerned about customer satisfaction reach middle average annual profit growth, and companies are that adequately concerned about customer satisfaction have high average annual profit growth in last three years. Bonferroni post hoc multiple comparison tests found that companies with low average annual profit growth are significantly less concerned about customer satisfaction than companies with high average annual profit growth that are adequately concerned about customer satisfaction. Companies that are somehow concerned about customer satisfaction do not statistically significant differ from companies that are slightly or adequately concerned about customer satisfaction.

ANOVA results further show that companies with low (less than 1%), middle (1-5%) and high (6 and more %) average annual profit growth in last three years significantly differ in monitoring market environment changes. Companies that slightly monitor market environment changes have low average annual profit growth in last three years, companies that somehow monitor market environment changes, have middle average annual profit

growth, and companies that adequately monitor market environment changes have high average annual profit growth in last three years. Bonferroni post hoc multiple comparison test found that companies with low and middle average annual profit growth are significantly less concerned about monitoring market environment changes than companies with high profit growth that adequately monitor market environment changes.

ANOVA results show that companies with low (less than 1%), middle (1-5%) and high (6 and more %) average annual profit growth in last three years significantly differ in application of market research. Companies that less often apply market research have low average annual profit growth in last three years, companies that from time to time apply market research have middle average annual profit growth, and companies that frequently apply market research have high average annual profit growth in last three years. Bonferroni post hoc multiple comparison test found that companies with low average annual profit growth apply market research significant less often than companies with high profit growth that frequently apply market research. Companies that from time to time apply market research do not differ significantly from companies that frequently or less often apply market research.

ANOVA results show that companies with low (less than 1%), middle (1-5%) and high (6 and more %) average annual profit growth in last three years statistically significant differ in responses to information gathered. Companies that slightly respond to information gathered have low average annual profit growth in last three years, companies that somehow respond to information gathered have middle average annual profit growth, and companies that adequately respond to information gathered have high average annual profit growth in last three years. Bonferroni post hoc multiple comparison test found that companies with low average annual profit growth respond significantly less to information gathered than companies with high profit growth that adequately respond to information gathered. Companies that somehow respond to information gathered do not differ significantly from companies that slightly or ones that adequately respond to information gathered.

5. RESEARCH IMPLICATIONS

Companies understand that they have to implement the process of collecting customer' knowledge as well as analysis and interpretation of market environment forces that influence customers' needs and wants into their business practice. Customer oriented company will satisfy expressed present and recognize future consumers needs as well as plan future products and services in cooperation with customers. Therefore, companies use collected information for improving business. However, changing customers needs stimulate company to collect information and respond upon them on constant basis (Dulaimi, 2005, p.5). Customer orientation provides superior value customers in order to satisfy them. That is possible only through recognizing customers' value chain that stay more or less stabile during constant changes in customers needs. Finally, customer orientation and its elements have to be strategic oriented in order to develop sustainable competitive advantages.

Field research analysis illustrates that companies in Croatia, when they develop customer orientation, appreciate four factors: concern for customer satisfaction, monitoring market environment changes, application of market research and responses to information gathered.

Taking into consideration theoretical background and other authors research (Deshpande, Farley, Webster, 1993, Slater, Narver, 1994a, Narver, Jacobson, Slater, 1999, Pelham, Wilson, 1999, Wang, Lo, 2003) factors emerged from conducted filed research are the key ones for customer orientation. All this imply that we affirm stated hypothesis "among Croatian companies, there are different dimensions of customer orientation present".

We could verify that factors obtained through field research analysis among Croatian firms confirm existence of orientation to customers.

Field results analysis further indicates that companies that have low average annual profit growth in past three years are significant less concerned about customer satisfaction, less monitor changes in the market environment, less often apply market research and slightly respond to information gathered that companies with high average annual profit growth. Therefore, adequate concern for customer satisfaction, regular market environment changes monitoring, frequent application of market research and response to information gathered are connected to high average annual profit growth.

Accordingly, as customer orientation components are concern for customer satisfaction, monitoring market environment changes, application of market research and responses to information gathered, we can conclude that their implementation increases profit and therefore initiates better business performance. This affirms stated hypothesis that "business results are associated with customer orientation implementation".

We recognize that responses to information gathered, which are important for customer orientation implementation, are statistically significant related to few variables. Established is correlation only with variables of employees' participation in training programs and average annual profit growth in the past three years. While, with variables like percentage of sales from new product/services, core business and cusomter type we did not found statistically significant relations i.e. does not exist statistically significant difference in relations with company's responses to information gathered. These relations need to be additionally researched. We could conclude that companies in Croatia are concerned with customer satisfaction, are monitoring changes in the marketing environment and applying market research however, their responses do not reflect all dimensions of their customer orientation.

We conclude with the following implication: business performance is for a large part of Croatian companies affected by elements of customer orientation and customer satisfaction.

6. CONCLUSION

Customer oriented companies business aim is to develop customer satisfaction through fulfilling their needs and wants. In order to obtain that, companies apply market research and exploit other ways of collecting information about customers' present and unexpressed needs and wants as well as about changes in the environment. We believe that companies that implement customer orientation continuously monitor market environment changes in order to respond upon competitors' efforts as well as to adapt activities to changing customers' needs.

Analyzing some authors' thoughts we conclude that companies develop advantages providing quality products/services, regarding customers, appreciating employees and developing its capabilities as key success determinants. Furthermore, customer is no longer one time transaction; therefore company develops customer relationship management in order to achieve long-run benefits. We comprehend that next phase after developing and satisfying customers is to build and encourage their loyalty.

Customer satisfaction is under four different group of factors influence: needs, wants and expectations, product/service elements, employee satisfaction and company business practice. Through researching customer satisfaction level as well as present and unexpressed customers' needs and wants, company collects information and creates conditions for developing customer satisfaction. To provide superior value for customers', company collects information about them through market research as well as through relationships. Moreover, collected information is stored in customer knowledge database and used in appropriate way to encourage customer satisfaction.

Conducted research recognized that four factors determine customer orientation in Croatian companies: concern for customer satisfaction, monitoring market environment changes, application of market research and responses to information gathered. Research results indicated that business results recognized as average annual profit growth are associated with customer orientation implementation. The results call for further research of customer orientation in order to better understand the development in these factors and their consequences in company performance.

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SOME ASPECTS OF BUSINESS ETHICS IN FAMILY ENTERPRISES IN SLOVENIA

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1. SUMMARY

At the most basic level a family enterprise may be defined as an enterprise, which is controlled by members of a single family. But family enterprises are not homogenous. They vary in terms of degrees of family involvement. The research cognitions described in the present paper show that 30.9 % of the observed enterprises face strong influence of the families through the ownership as well as management of the enterprise.

The main purpose of our paper is therefore to better understand the association between the degree of involvement of a family in ownership and management of a family enterprise and the business behavior of family enterprise in different business situations. The main data source for our paper is the survey of 350 SMEs in Slovenia.

Overall findings suggest that enterprises, characterized by a high degree of family involvement do not differ significantly from the firms that are characterized as non-family ones, regarding the total sales revenues, economic efficiency, value added per

employee, export orientation and cooperation with large companies. The same goes for firms characterized with a low degree of family involvement. It is very likely, that in the present state of development of family firms and market economy in Slovenia, the degree of family involvement is not crucial for business behavior and business performance regarding the variables analyzed. Several extensions of our research are also proposed.

2. INTRODUCTION

At the most basic level a family enterprise may be defined as an enterprise, which is controlled by members of a single family. Numerous attempts (especially in developed market economies) to define a family enterprise are found in the literature; we pay attention to this issue also in our research carried out in Slovenia. We assume that some characteristics of a family enterprise in transition economy are different from that in developed market economy.

Family enterprises are not homogenous. Empirical researches have revealed that, among others, family enterprises vary regarding the degree of family involvement in ownership and management. Family system forms fundamental principles, values and norms that influence culture and business ethics of a family enterprise. It may be expected, that the degree of this influence varies regarding the degree of family involvement in ownership and management. Business ethics in our paper is understood as the system of norms and rules that had to be followed, especially by the management.

Main purpose of our paper is to better understand the association between the degree of involvement of a family in ownership and management of a family enterprise and the business behavior of family enterprise in different business situations. The main data source for our paper is the survey of 350 SMEs in Slovenia.

The paper is structured as follows: in the third chapter the literature review is presented regarding the importance, characteristics and definitional problems of family businesses in developed market economies as well as in transition countries. In the fourth chapter business ethics in family businesses is discussed. In the fifth chapter hypotheses are formed, while in the sixth chapter data collection and methodology used are presented. After findings in the seventh chapter, conclusions are presented in chapter eight.

3. LITERATURE REVIEW ON FAMILY ENTERPRISES

Although family businesses are no doubtingly considered as a very important part of economies – this holds for developed market economies as well as for transition countries – there is a lack of consensus regarding the definition of a family enterprise. In the literature three main streams regarding this issue may be found (Sharma 2004): articulation of multiple operational definitions of family enterprises (for example:

Westhead and Cowling 1998; Astrachan and Shanker 2003), development of scales to capture various types of family involvement (for example: Astrachan, Klein, and Smyrnios 2002) and the development of family firm typologies (for example, Sharma 2002). The focus of most of these efforts has been on defining family enterprises so they can be distinguished from non–family enterprises. None of these articulations has yet gained widespread acceptance.

However, while differences between family and non–family business have been explored (for example: Jorissen et al. 2005; Westhead and Cowling 1997; Klein 2000), it should be recognised, that family firms are not homogeneous. Empirical research has revealed that family enterprises vary in terms of degrees of family involvement (Westhead and Cowling 1998; Sharma 2004). Three key issues have been frequently utilized when describing family involvement (found in the literature described above): (i) whether a single dominant family group owns more than 50 percent of the shares in a business, (ii) whether the firm is perceived by owners/managers to be a family one and (iii) whether a firm is managed by members drawn from a single dominant family group. These three issues are also used later on in this paper with the purpose to analyse the strength of family involvement into the family business.

At the heart of this issue is whether family business entrepreneurs will place family concerns over business success or growth. Ward (1987) contends that they differ with respect to their inclination to pursue a business-first or a family–first philosophy. Dunn (1995) formed a model to analyse and categorize family enterprises. The model provides insight into the source and effect of family values and family dynamics on business growth and development. Although the sample used in the research was very limited, it could be estimated that business–first firms were more likely to possess the attributes needed for growth. Similarly, Singer and Donahu (1992) identified two distinct types of family businesses: the family–centred business, where the business is the way of life, and the business–centred family, in which business is a means of livelihood.

Ward (1987) suggests that family–oriented enterprises will be rather rigid and will centralise decision making, with family members taking the most important decisions. Donckels and Froehlich (1991) claim that such enterprises will be more stable than progressive and more conservative about growth. While Hoy and Verser (1994) point out that strategic planning in family firms is complicated by the overlapping needs of family, management and owners, Ward (1987) stresses that, since planning is associated with change and risk–taking, family–oriented firms will also fail to make strategic plans.

Moreover, it is very likely that family dynamics change over time. In the first generation, the owner will probably also be the founder, issues of survival and growth will dominate business decisions and family involvement may be rather limited. As the enterprise matures, the family may turn its attention to support increasing number of siblings in a business (Gersick et al. 1997), and enterprises may focus on family objectives to a greater extent than previously (Dyer and Handler 1994). There is some evidence, for example, that first generation enterprises in the UK are less pro–family than subsequent generations (Cromie et al. 1995).

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Regarding studies on family enterprises performance and their comparisons with non-family enterprises Westhead and Cowling (1997) call attention to the fact that there is little consensus about the "best" indicator to accurately capture the performance of small and medium-sized enterprises among which family ones prevail. Research studies on family enterprises performance have very often focused on a single measure and many studies also have unrealistically assumed that profit maximization is the only (or prime) objective of family enterprises. The authors found in their study that family enterprises are not solely profit maximizers. To a greater extent, respondents in family enterprises suggested "a prime objective is to maintain/enhance the lifestyle of the owners" and "to provide employment for family members in the management team". As a result, in some family companies there is potential conflict between financial and non-financial objectives. Westhead and Cowling (1997) point out, that the performance and wider social contribution of family businesses cannot be assessed by "hard" financial performance indicators alone. Gallo in coauthors (2004) discover in comparative study of Spanish family and non-family enterprises that peculiarities of the "financial logic of family enterprises" are not due to any lack of knowledge or technical financial skills but to the personal preferences of family businesses chief financial officer or other powerful family members. Non-financial objectives very often cited are among others (Westhead, Cowling, 1997; Gallo et al., 2004): "the wish to pass over the business to the next family generation", "offering job opportunities to family members", "to ensure independent ownership of the business", "to maintain the financial independence of the family as well as of the business", "generated profit should remain in the business in order to secure the survival of the business".

In former socialist (communist) countries the research of family businesses is still in its infancy. Studies of family enterprises are scarce. One of the reasons is the fact, that private enterprises were outlawed during the era of a socialist economy. The social and economic changes in the Eastern Europe in the 1990s have created an opportunity for the rebirth of entrepreneurship and family business development. The industrial policy in transition countries has been focused on the development of a dynamic small and medium-sized enterprise sector. Several studies found that families provided critical resources and support to newly emerging enterprises in transition countries (McKibbin, Pistrui, 1997; Poutziouris, O'Sullivan and Nicolescu, 1997; Duh, 2003). Even though earlier studies indicated that family businesses and owner-managed enterprises were at the forefront of socioeconomic transition in these countries, our understanding of the role of family businesses development is scarce. Very little is known about how family enterprises in transition countries are coping with their problems, for example with the succession problem, even though according to experience from established market economies it shall become a serious problem. Namely, owners/managers of family SMEs are often also their founders and are facing the absence of succession tradition. The institutional advisory and educational support is often absent as well.

Slovenia and Croatia became independent states after the collapse of the Socialist Federal Republic of Yugoslavia in 1990. They had similar government institutions, as well as the same legal and economic system. Slovenia, the country with only two million people, has entered European Union in May 2004, and is among the most advance of all transition economies in Central and Eastern Europe.

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In Croatia, as in other transition economies, the SMEs sector started to develop with the possible prospect of establishing private enterprises. This happened at the beginning of the 1990s, and since then the share of small enterprises has increased by 370 percent. Many of these small enterprises are family ones, even though there are also medium and large family enterprises (Galetić 2002). Family enterprises have been recognized to have an important role in creating new jobs (Aksentijević and Bogović, 2001).

The transition to the market economy from the former socialist economy with social and state ownership in Slovenia was closely associated with the development of SMEs – similarly to the other transition countries. The legal bases for the development of private SMEs were the Law on Enterprises (1988) and the Law on Craft (1988). The first law opened opportunities for the development of the private entrepreneurial sector, and the second law reduced obstacles for the development of the craft sector, especially limitations on employment in craft enterprises. Since the 1990s the number of SMEs increased dramatically; in 2002, the share of SMEs in the structure of all enterprises was 99.7 percent; 93.4 percent of all enterprises were micro enterprises, with up to nine employees (Rebernik et al. 2004). Based on results of two studies on family enterprises (Duh, 2003; Vadnjal, 2005), it was estimated that between 40 and 50 per cent of all enterprises in Slovenia were family ones, majority of them were owned by first-generation owners.

Regarding the appropriate and operational definition of a family enterprise in transition countries, some research results (Duh, Tominc 2005) indicate that some special features of enterprises as well as the economic system should be taken into account. Namely, "ownership remaining within the family's second and later generations" is recognized as one of main elements that characterized family enterprise in developed market economies (Getz, Carlsen, 2000). Therefore the generational criterion ("the enterprise is owned by second-generation or more family members") eliminates enterprises in the ownership of the first generation of owners (founding generation) from the group of family enterprises. The share of first generation family enterprises is very high in transition countries, since the entrepreneurial tradition in transition countries was broken after World War II, and the possibility of establishing private enterprises was opened in the early 1990s. The use of this criterion in the definition of a family enterprise in transition countries would eliminate a very important part of family enterprises from the research.

4. BUSINESS ETHICS IN FAMILY BUSINESSES

The authors who focus on the problems of business ethics distinguish themselves primarily in their understanding of the fundamental instrument (and level) which would guide enterprises to their credible functioning as well as towards the awareness of such functioning as being the fundamental and only possible way for their success (Belak 2005). As Thommen (2004) claims, the credibility of an enterprise is the foundation and origin of enterprises' ethical behavior as well as their success. Further more different authors (Thommen 2003; Belak 2003) define ethics as one of the most

important and equivalent success factors.

The family enterprise consists of two systems with different goals and functional motives which may be the origin of many conflicts. As such these conflicts can be found only in the system of a family enterprise. Several authors (Friz 2002; Duh 2003; Feldbauer 2003; Kadocsa 2003, Klein 2000; Martin 2003) claim that many family enterprises experience crises or even go bankrupt because of the conflicts that family members face as being part of the family on one side and enterprise's stakeholders on the other. Despite the differences between these systems, several entrepreneurs think of "family ownership" as a business instrument and symbol of quality.

The family system is internally oriented (Duh, 2003; Kajzer, 1994), which decreases the possibility of change. Results of the STRATOS project (Donckels and Froehlich 1991), a comparative study of 1132 small and medium sized family and non-family enterprises, showed that the owners of family enterprises expressed the strong opinion that the management of their enterprises should remain in the hands of the family, the family tradition should be preserved, the enterprise should be managed as a family enterprise, and that the main goal should be the building and development of the enterprise in favour of the family interest.

On the other hand the system of an enterprise is based on economic motives, efficiency, and effectiveness. Its behavior is conscious and externally oriented – it strives for changes and uses these changes for its own growth and development.

The family is an intimate room where the culture of the family as well as of the broader environment is shaped, and where the first social relationships are formed, which differ from relationships with people outside the family circle. The process of family education and upbringing form the foundation for the focused expectations of every single family member upon which the trust and firmness of family relations are built. Furthermore the working motivation of family members is different. Considering these facts, we can say that the primary goal of a family enterprise is functional independence as a system. All these characteristics enable a family enterprise to maintain the economic power, development, respect and contentment of its stakeholders (Bogod, Leach, 1999). The motive for functioning is what distinguishes a family enterprise from a non-family one. The family enterprise can achieve all the goals listed above only in the context of its needs and interests which are the consequence of certain phenomenon valuation (values).

The family system forms fundamental principles, values, and norms, which can be seen as the guidelines in setting the vision, mission and goals of such an enterprise. Because of the importance of family influence on the culture and ethics of a family enterprise system, it could be possible to observe and value the level of family influence on the ethics of a family enterprise. The ethical behavior of a family enterprise can be observed through its behavior towards the internal and external business environment. The ethical norms and behavior of an enterprise with family ownership and management (in most cases) derives from family ethical norms and behavior. We should look for the origin of family enterprise credibility by observing a family. The functioning of a certain family enterprise follows the credibility (considering Thommen's concept of credibility 2003), which is based on the communicative, innovative and responsible functioning of that family. In this way

family credibility is not only the origin of business credibility but also the foundation of the enterprise's existence and success.

5. HYPOTHESES

As already mentioned, the main purpose of our paper is to better understand the association between the degree of involvement of a family in ownership and management of a family enterprise and the business behaviour of a family enterprise in different business situations. With the purpose to encounter different levels of family involvement into the business and therefore also into the business decisions, three levels are analyzed:

1   The lowest degree of involvement is expected if owner/manger confirms only that the enterprise is perceived by her/him to be a family enterprise.

2   The middle degree of involvement is expected if owner/manager confirms, that the enterprise is perceived by her/him to be a family enterprise and that more than 50 percent of ordinary voting shares are owned by members of the largest single family group related by blood or marriage.

3   The high degree of involvement is expected if owner/manager confirms, that the enterprise is perceived by her/him to be a family enterprise and that more than 50 percent of ordinary voting shares are owned by members of the largest single family group related by blood or marriage and that one or more of the management team is drawn from the largest family group that owns the enterprise. Alternatively the high degree of involvement was expected also if the third condition is replaced by the condition, that more than 50 percent of the management team is drawn from the largest family group that owns the enterprise.

There is some evidence in the literature, as described earlier, that it may be expected, that family firms characterized by a high degree of family involvement differ from other firms regarding different aspects of business performance and decisions, while family firms characterized by a low level of family involvement do not (»other firms« are firms, that are not characterized by any level of family involvement – non-family firms). Although there is also some evidence, described earlier in this chapter as well, that not solely the level of family involvement matters (for example also the generation of the family in charge), following two main research hypotheses are formed:

H1: Family firms characterized by a high degree of family involvement significantly differ from other firms regarding different aspects of business performance and decisions.

H2: Family firms characterized by a low degree of family involvement do not significantly differ from other firms regarding different aspects of business performance and decisions.

6. DATA AND METHODOLOGY

The main data source for our study is a telephone survey among 350 SMEs in Slovenia. The survey took place in October 2004 in Slovenia. Respondents were owners of enterprises that they also helped to manage. The structure of the sample matched the most recent official data regarding the number of enterprises in regions in Slovenia, as well as the structure of enterprises by their principal industry activity (NACE codes) and by size measured by the number of employees.

Since 12 respondents did not answer all the questions referring to the characteristics of a family business, they were excluded from the analysis. In the next phase of collecting data we were looking for data on company performance. Those data were obtained from the database iBON 2004/II CREDIT RATING where financial statements of companies are collected and stored. We could obtain data for 317 enterprises out of 338 in the sample. Consequently, 317 enterprises remain in the data set. As described in a previous chapter, three levels of family involvement in an enterprise were analyzed and compared with the group of non-family firms.

As previously pointed out, business decisions in family firms may be oriented towards different business goals as they are in non-family businesses, since personal preferences of powerful family members may be differently – financially or non-financially oriented. The present level of research allows us to study only few "quantitative" results of business decisions, namely financial performance:

- Total sales revenues (in €).

- Economic efficiency (in percent) (measured as total revenues to total expenses).

- Added value per employee (in €). The values of these three variables were obtained from the database iBON 2004/II CREDIT RATING.

- Export orientation was measured with the following question: How many (jn share) of your clients live outside Slovenia?

Besides these variables an important aspect regarding the feeling of being independent in business decisions is the cooperation with large companies:

- Respondents were asked, if they cooperate on a permanent basis with large companies with 250 or more employees, rather than just buying their products or services. If they confirmed that they did not cooperate, respondents were asked if they agreed, that they did not cooperate because this could threaten the independent business decisions making of the business that they owned and managed.

For testing the differences between the two groups of enterprises, the t-test and $\chi 2$-test were used. The general criteria for accepting the hypothesis that differences exist was the statistical signification at the 5 percent level ($p < 0.05$; two-tailed).

Different research reports indicate that enterprise demographics can overwhelm univariate studies and performance differences previously detected between family and non family enterprises may simply reflect »sample« rather than »real« performance differences (Westhead and Cowling 1997, Jorissen et al., 2005). As demographic control variables company size and company age were chosen:

- Size of a company. It was measured by the number of employees. Data were obtained from the database iBON 2004/II CREDIT RATING.

- Age of a company. It was measured with the following question: What was the first year the owners received wages, profits or payments in kind? (Payments in kind refer to goods or services provided as payments for work rather than cash.) 50 enterprises out of total 317 in the sample did not answer this question.

7. FINDINGS

7.1. The degree of family involvement in an enterprise

As already mentioned three degrees of the family involvement in an enterprise are observed:
- The lowest degree is observed if respondent – owner/manger – confirms only that the enterprise is perceived by her/him to be a family enterprise – **group A**.

- The middle degree is observed if respondent – owner/manager – confirms, that the enterprise is perceived by her/him to be a family enterprise ***and*** that more than 50 percent of ordinary voting shares are owned by members of the largest single family group related by blood or marriage – **group B**.

- The high degree of influence was expected if: respondent – owner/manager – confirms, that the enterprise is perceived by her/him to be a family enterprise ***and*** that more than 50 percent of ordinary voting shares are owned by members of the largest single family group related by blood or marriage ***and*** that *one or more of the management team* is drawn from the largest family group that owns the enterprise – **group C**. Alternatively the high degree of influence is expected also if the third condition is replaced by the condition, that *more than 50 percent of the management team* is drawn from the largest family group that owns the enterprise – **group D**.

- Other firms were characterized as non-family firms and were included into the **group NF**.

As it is presented in Table 1, there are only few differences between groups A, B in C. Almost all of N=168 firms, that belong to group A, are included also to group B (N=153) and also to group C (N=150), meaning that almost all of those respondents (owners/managers) that perceived firms as a family ones also belonged to the family

that owned more than 50 percent of ordinary voting shares; at the same time *one or more of the management team* is drawn from the largest family group that owns the enterprise.

Therefore only two levels of family involvement were included into the further analysis: group A in comparison with the group NF and group D in comparison with the group NF.

Table 1: The number and the share of enterprises regarding different levels of family involvement

Group	Number	Sample proportion in percent	95% confidence interval
A	168	53.0	(47.5; 58.5)
B	153	48.3	(42,7; 53.8)
C	150	47.3	(41.8; 52.8)
D	98	30.9	(25.8; 36.0)
NF	149	47.0	(41.5; 52.5)

7.2. Employment size and age

Research results on company size measured by the number of employees show that there are no significant differences between firms, that are perceived by owner/manager to be family ones and those that are not – groups A and NF, as presented in Table 2. Similarly, there are no significant differences between enterprises included in groups D and NF.

Table 2: Employment size and age of enterprises

Group	Employment size			Age		
	Value	t-statistics	p-value	Value	t-statistics	p-value
A	4.77	1.162 (A and NF)	0.246	11.31	1.773 (A and NF)	0.077
NF	3.41			9.56		
D	4.38	0.699 (D and NF)	0.485	12.41	2.454 (D and NF)	0.030

As already mentioned, age of a company was measured with the following question: *What was the first year the owners received wages, profits or payments in kind?* Enterprises that are characterized by a certain level of family involvement - groups A and group D - are on average older than enterprises in the group NF. The difference between group D and NF regarding the age of a company is also significant.

Even though family enterprises in Slovenia are on average older than non family ones, they are relatively young comparing to family enterprises in some other countries. For example, German family businesses are older than non family businesses and older than Slovenian ones. Of the businesses that were founded up to 1960 and were still around in 1996-97, more than 70 percent are still family businesses (Klein, 2000). On the other hand, Pistrui and coauthors (2000) found in comparative study between East and West German SMEs that the vast majority (79 percent) of the East German enterprises surveyed were new start-ups, compared to 38 percent in the West.

7.3. Business performance

As already mentioned, the business performance was analyzed:

- Total sales revenues (in €).
- Economic efficiency (in percent) (measured as total revenues to total expenses).
- Added value per employee (in €). The values of these three variables were obtained from the database iBON 2004/II CREDIT RATING

Export orientation was also analyzed – by the share of customers living outside Slovenia. Proportions of firms with more than 50 percent of customers living abroad in both groups were analyzed. Results are reported in Table 3.

Table 3: Total sales revenues, economic efficiency and added value per employee

Group	A	NF	D
Total sales revenue (in €)	408,476.9	141,082.4	444,615.8
$\quad$ t = 1.993 $\quad$ p = 0.089 (A and NF)			
$\quad$ t = 1.419 $\quad$ p = 0.159 (D and NF)			
Economic efficiency (in %)	106.4	126.4	104.9
$\quad$ t = -2.658 $\quad$ p = 0.009 (A and NF)			
$\quad$ t = -2.766 $\quad$ p = 0.006 (D and NF)			
Added value per employee (in €)	14,232.3	8,868.8	16,021.5
$\quad$ t = 1.328 $\quad$ p = 0.185 (A and NF)			
$\quad$ t = 1.144 $\quad$ p = 0.255 (D and NF)			
Proportion of firms with more than 50 percent of customers living abroad (in %)	10.7	9.4	7.1
$\quad$ $\chi2 = 0.04$ $\quad$ p = 0.840 (A and NF)			
$\quad$ $\chi2 = 0.151$ $\quad$ p = 0.535 (D and NF)			

In both cases results are similar, namely, groups A and D significantly differ from NF group only regarding the economic efficiency. There is no evidence, that the financial performance of firms with stronger family involvement (group D) is different than in firms where the family involvement is less strong (group A).

7.4. Cooperation with large companies

As results presented in Table 5 indicate, a higher proportion of firms that are perceived as family ones by the owner/manager (group A), cooperate with large companies, than it is found among firms, that are characterized as non-family ones.

The difference in proportions of companies that cooperate with large companies in groups D and NF is significant at p<0.10. On the other hand, the proportions of those that do not cooperate because this could threaten the independent business decisions making of the business that they own and manage, are not significantly different – between groups A and NF as well as groups D and NF. Nevertheless it is worth stressing that this reason is important for almost one quarter or firms that do not cooperate with large companies.

Table 5: Cooperation with large companies

Group	Percentage of companies, that cooperate with large companies			Percentage of those that do not cooperate, because this would threaten their business independency		
	Value	χ2-statistics	p-value	Value	χ2-statistics	p-value
A	45.2 (A and NF)	8.350	0.004	22.0 (A and NF)	0.056	0.813
NF	28.9			24.5		
D	39.8 (D and NF)	2.714	0.099	20.7 (D and NF)	0.121	0.728

Overall findings suggest that hypothesis H1 is rejected and hypothesis H2 is not rejected. Therefore it seems, that enterprises, characterized by a high degree of family involvement do not differ significantly from the firms that are characterized as non-family ones, regarding the total sales revenues, economic efficiency, added value per employee, export orientation and cooperation with large companies. The same goes for firms characterized with a low degree of family involvement.

8. CONCLUAIONS

It is very likely, that in the present state of development of family firms and market economy in Slovenia, the degree of family involvement is not crucial for business behavior and business performance regarding the variables analyzed. As already mentioned, in the first generation firms, issues of survival and growth may dominate business decisions and family involvement may be rather limited. As the enterprise matures, the family may turn its attention to support increasing number of siblings in a business (Gersick et al. 1997), and enterprises may focus on family objectives to a greater extent than previously (Dyer and Handler 1994). Since the majority of firms in groups A and D are the first (the founder) generation firms (83.7 percent in group A and 87.8 percent in group D), this may also be among reasons for no significant differences regarding analyzed business performance indicators, between firms, that are characterized by a certain level of family involvement and the firms that are not.

It was also established (Duh et al. 2007) that family and non-family firms (different levels of family involvement were analyzed) do not differ significantly regarding aspirations of entrepreneurs to grow their businesses, neither are the succession issues of great concern of entrepreneurs in Slovenian family businesses. It therefore seems that there are no significant differences between family and non-family firms regarding many issues in Slovenia.

Several extensions of our research are needed and possible; one being the analysis of impact of a generation of a family that is in charge, on the strength of family influences on the business behavior, as well as other factor that might influence business decisions in family businesses. Since the proportion of family businesses that are owned and managed by a second generation or more is rather small in Slovenia, their identification is not an easy task.

The present level of research allows us to study only few "quantitative" results of business decisions. As it was already mentioned in this paper, the performance of

family businesses cannot be assessed by "hard" financial performance indicators alone – non-financial objectives, like "the wish to pass over the business to the next family generation", "offering job opportunities to family members", "to ensure independent ownership of the business", "to maintain the financial independence of the family as well as of the business", "generated profit should remain in the business in order to secure the survival of the business", may be of a greater importance in a family business. Therefore the extension of our research should also go in this direction.

From ethics perspective the research should strongly consider a family enterprise as two different systems that influence each other. The research cognitions described in the present paper show that 30.9 % of the observed enterprises face strong influence of the families through the ownership as well as management of the enterprise. Considering our previous discussion we could claim that norms and values shaped and formed within a family system would be overtaken also by an enterprise system, where a family has strong impact on the vision, mission and the goals of an enterprise. Considering the characteristics of the both family and enterprise systems we can state further research questions: Are the family enterprises less risk taking as non-family enterprises? Are family enterprises more ethically oriented as non-family ones? Are family enterprises more successful from non-family ones in long term? In order to answer these questions further research should observe separately core values, culture, philosophy, and ethics of a family as well as of an enterprise. This research approach would also show the influence that family has on an enterprise in a sense of non-financial or qualitative elements of family enterprises' success.

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MEASURING PERFORMANCE OF IDEA MANAGEMENT IN MANUFACTURING ORGANIZATIONS

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1. INTRODUCTION

This article shows the development of a performance measurement model for idea management. Idea management (IM) is a formalized mechanism for encouraging employees to contribute constructive ideas in order to improve organisations in which they are employed (Milner et al., 1995). It encompasses planning, organising, managing and control of the process of inventions creation and their transformation into potential innovations and further into innovations in the widest range of employees – unprofessional innovators. Idea management can not be a way to a rapid progress of the company yet it may importantly influence its competitiveness by its contribution to the continuous improvement of processes. Beside that, it may also indicate the starting point of successful "professional" innovation, i.e. the product, service or process development that provides the basis for company's survival and its main competitive advantage.

Two basic organizational forms of IM can be identified in the organizations producing goods or services. The "classical" centrally-driven system provides for the entire process to be managed in a centralised manner. The employees submit their ideas on improvements (i.e. suggestions) in a written form to the central department (IM department) or an individual who is responsible for processing employee suggestions within the company. The role of a line manager in this system is only marginal. On the other hand, the supervisors-managed system proves to be completely decentralized since the predominant responsibility for implementing IM is entrusted to line managers. The IM department acts only as a coordinator, trainer, animator and motivator. Besides the two basic approaches to IM, also different combinations of both can be found.

An increasing role of IM can be noticed in the business practice (Dib-Report, 2005). A number of companies state the importance of non-professional innovations as a way to competitive advantage. However, it can be noticed that the companies are missing a reference point to assess if their achievements are good, even exceptional or perhaps just on average. Two commonly used measures are the number of (submitted and implemented) suggestions and net economic savings from suggestions (both relative to the total number of employees).

Even though these two measures may show the degree of effectiveness of the IM system in comparison to other organisations, they don't allow an in-depth comparison and assessment of the current (favourable or unfavourable) situation. In order to assess the effectiveness of the invention and innovation processes in a company, their efficiency and effectiveness should be measured in a more objective way than by number of suggestions and net savings only.

2. THEORETICAL BACKGROUND

Radical changes in the business environment, like new technological opportunities, world trade liberalization, shortening of product life cycles and shareholders' increasing attention to short-term profitability force the today's organizations into continuous striving for adaptation. Along with other business areas, also the invention and innovation management is forced into continuous demonstration of improved development behaviour, not only by using invested funds efficiently, but also by its own development (Lager, Horte, 2002). For this reason, the organisations need to observe their environment actively, thus making the measurement of their abilities in comparison to the business environment an increasingly important task on every manager's agenda. However, the efforts to define the appropriate IM performance indicators are facing a number of obstacles. Several studies on professional invention-innovation processes and structures have been carried out on the company, industry and country level, but rather a limited number of them on idea management. So, the IM performance indicators are grounded mainly on practical experience of every single organisation.

Since the professional innovation and IM are closely related and interdependent, we can assume that the performance of both can at least partly be measured in a similar way. Literature asserts numerous definitions of indicators which would enable assessing of the organization's innovation capability. Innovation indicators may be observed in several ways. The first alternative for a division is performed according to the phase of their influence on invention-innovation processes, i.e. the process *input*, the *process* itself and the process *output* (e.g. Flor, Oltra, 2004). Next possible division encompasses individual and composite indicators. *Individual* indicators (e.g. Hollenstein, 1996; Coombs et. al., 1996; Freel, 2005) measure single influential factors (e.g. amount of resources invested into research and development, annual number of days dedicated to training of management and employees and similar). The problem of individual indicators remains their inability to analyse objectively such a complex area as the innovation management most definitely is. Consequently, the *composite* indicators prove to be more appropriate since they regard the invention-innovation process with due complexity, namely as an intertwinement of related and correlated factors (e.g. Hagedoorn and Cloodt, 2003).

A deficiency of past research in the field of idea management is its focus on individual indicators of effectiveness and efficiency (e.g. Thom, Etienne, 1997; Marx, 1995) which are only rarely aggregated into composite ones (one of the most recent of the latter is GiMB, 2004). The proposed methodology tries to overcome this restraint.

3.   METHODOLOGY

The aim of our research was to define a methodology for IM performance measurement which will assure the fulfilment of the following objectives:

1. a quantitative assessment of IM performance (a quick evaluation of every influential factor (organizational structure, climate and culture, goal setting, IM processes ...), an ability to compare the state of development for every factor within the company and an aggregated score for all the factors per company),

2. a comparison among companies at the level of every influential factor and in general, and

3. an intuitive graphical presentation of results.

The research is based on an extensive questionnaire, composed of a qualitative and quantitative section (the questionnaire development is discussed in detail in chapters 3.1 and 3.2).

In the qualitative section, the IM characteristics of the company are determined on the basis of the statements, evaluated by the respondent on the 5-grade Likert scale. The input and process parameters are evaluated separately. In the quantitative section, the company's results in the field of IM (i.e. output parameters) are determined. The principal difference among input and process parameters on one side and the output parameters on another is that input and process parameters can be influenced directly by the management, while output parameters are controllable only indirectly, by control of input and process. Thus, the company needs to assure such a combination of input and process that the optimal results are achieved in the output. For this reason, input and process parameters will mainly be discussed simultaneously.

A second stage of the survey was a pilot test and analysis of responses. On the basis of determined output parameters, IM performance indicators are calculated. Further, these indicators are compared to the input and process parameters achieved. Our aim is to confirm a relationship between input and process parameters, as defined by our methodology, and results, achieved by the IM in a company.

3.1.   Measuring of input and process parameters

The development process of the questionnaire qualitative section comprised several phases. Based on the literature review on innovation and idea management (Anic, Neuhaus, 2002; Drucker, 1985; Fatur, 2005; Garcia, Prado, 2003; Johannessen et al., 1999; Likar, Kopač, 2005; Lloyd, 1996; Milner et al., 1995; Markič, 2006; Mulej, Ženko, 2002; Pervaiz, 1998; Thom, Etienne, 1997), (1) the elements, influencing the IM performance, and (2) their sense of influence (accelerating or hindering) was identified. The influencing elements were transformed into statements, which establish the presence and the level of influence or development of individual element of IM. We continued with merging statements which are covering similar contents into "factors" (Table 1). Organization of the IM system was thus defined as an intertwinement of 11 qualitative factors, each of them evaluated on the 5-grade Likert scale by 9-18 statements.

Table 1: Input and process parameters of idea management

	Input parameters of IM		Process parameters of IM
In1	IM strategy	Proc1	IM organisation
In2	IM goals and objectives	Proc2	Creativity techniques
In3	Innovation culture and climate	Proc3	IM communication
In4	IM perception	Proc4	IM bonus system
In5	IM training	Proc5	Line managers
		Proc6	Idea manager

Each factor can be defined as an implicit characteristic of IM, while the statements reflect explicit, visible characteristics of IM. From the methodological viewpoint it would be fairly complicated to evaluate the implicit characteristics of culture, leadership, creativity and other IM factors by a questionnaire (a more appropriate technique is the interview or observation, but being quite difficult in view of a relative large sample). Therefore it makes sense to transform the implicit characteristic into statements, determining the nature of particular activities, events, decisions (thus superficially visible – explicit – characteristics) and infer from the statements to prevailing culture, management style or creativity level.

After the elimination of the statements within every factor which duplicate in the meaning, the questionnaire was subject to a double validation process (filled-out at the first stage by 3 IM experts from the same company and at the second stage by an expert from three different companies) to assure the common understanding and prevent the ambiguity of the understanding of each statement.

3.2. Measuring of output parameters

The output parameters (Table 2) express company's results, achievements in the field of IM. In contrast to input and process parameters that can be directly influenced by the company, the output parameters can only be controlled indirectly, by adapting input and process. In order to assess the effectiveness and efficiency of this control, the measures of performance must be established first. While the inputs into IM process and the process itself usually can not be measured quantitatively, the IM results can be expressed by objective indicators. Consequently, a comparison among the set objectives and achieved results can be used as an IM performance measure.

Table 2: Output parameters of idea management

	Output parameters of IM
Out1	Number of submitted suggestions
Out2	Number of employees submitting a suggestion
Out3	Number of approved suggestions
Out4	Number of implemented suggestions
Out5	Net savings from suggestions
Out6	Total awards paid
Out7	Total number of employees

3.3. Calculation of output indicators

In order to be able to compare achievements of different companies, one has to set relative indicators expressing each output parameter in relative terms. The basic presumption within the indicator formulation is the following: a successful IM embraces lots of employees submitting lots of suggestions, lots of them are approved and lots implemented out of these, each bringing a the highest possible savings. If these goals are met, the economic value of IM is assured and investment into its development justified.

Based upon the output parameters (*Out1…7*), a set of 6 indicators has been developed. Some of them are already well known from the literature and business practice (Dib-Report, 2005; GiMB, 2004); some were developed for the purpose of this research. However, they are organized in a logical set of indicators, each of them showing an essential segment of IM. The indicators are explained in detail in the following chapters.

3.3.1. Return ratio (RR)

The economic objective of IM can be expressed as net savings per employee, calculated as a difference between the sum of revenues increase and cost reduction due to suggestion implementation and the sum of costs, caused by the implementation of suggestions and overall IM system development, per employee.

$$RR = \frac{Net\ savings\ from\ suggestions\ (Out5)}{Total\ employees\ (Out7)}$$

Though, there is a considerable part of suggestions that can not be financially evaluated (e.g. improvement of workplace conditions, prevention of mistakes, work safety etc.). The calculation costs for smaller suggestions can even be much higher than the benefit of the suggestion itself (Hierl, 2002). However, recent trends propose a rough estimation of economic value even for these suggestions (GiMB, 2004).

3.3.2. Popularization ratio (PR)

This indicator refers to the area that normally attracts most attention in the stage of IM implementation in a company. It is defined as a share of employees that have submitted at least one suggestion in a 1-year period.

$$PR = \frac{No.\ of\ employees\ submitting\ a\ suggestion\ (Out2)}{Total\ employees\ (Out7)}$$

If the IM should reach an appropriate position in a company, a critical mass of employees needs to be attracted. So, as many employees as possible submitting an idea shall be the primary goal of IM. The indicator measures the company's ability to popularize IM. This depends on a complex set of factors, e.g. a general organizational climate and culture, line managers' behaviour, advertising, communication, bonus system etc.

3.3.3. Customization ratio (CR)

While the Popularization ratio measures a general ability of IM to attract the employees, the Customization ratio is more focused. It measures the action of IM onto a particular inventor.

$$CR = \frac{No.\ of\ submitted\ suggestions\ (Out1)}{No.\ of\ employees\ submitting\ a\ suggestion\ (Out2)}$$

Attracting an employee to submit a suggestion requires one approach, retaining him/her in the system in order that (s)he keeps returning with new ideas needs other measures. A careful

treatment of any suggestion is here of vital importance, including the speed of evaluation, fairness and prompt implementation of approved suggestions.

3.3.4. Focus ratio (FR)

In principle, approved suggestions are the ones that prove to be useful to the company. It might also happen that even useful suggestions are not approved, but a situation like this would show a rather degenerated system. It is also true that approving a suggestion does not necessarily mean its implementation into practice – this will be an issue of the following indicator.

$$FR = \frac{No.\ of\ approved\ suggestions\,(Out3)}{No.\ of\ submitted\ suggestions\,(Out1)}$$

The Focus ratio (the rate of approved suggestions out of all submitted) shows the share of suggestions that were evaluated as beneficial for the company. Beneficial is what contributes to the fulfilment of the company's business goals. Therefore, approved suggestions are the ones contributing to the company goals. In order to make the share of such suggestions as large as possible, the IM system needs to direct the employees towards the areas that need improvement. This is closely connected to setting of IM goals that are "customized" to the particular needs of every organization unit of the company. Therefore, a high Focus ratio indicates the management's ability to focus the employees on the areas which need improvement.

3.3.5. Implementation ratio (IR)

The Implementation ratio indicates the company's ability to implement ideas.

$$IR = \frac{No.\ of\ implemented\ suggestions\,(Out4)}{No.\ of\ approved\ suggestions\,(Out3)}$$

An invention itself has no value unless implemented. For this reason, the Implementation ratio is of a high importance. Usually, implementation of suggestions is out the idea management domain. The IM department evaluates the idea and passes it to the line manager (e.g. maintenance staff) for implementation. Here, lack of interest, time and good will can often be an obstacle. If ideas are not implemented, the effect will soon be noticed as the low Customization ratio level. Therefore, Implementation ratio shows the IM ability to motivate the line managers to put the suggestions into practice (to turn inventions into innovations). The fulfilment of this indicator can not only be the responsibility of IM itself, but the company's ability to coordinate the IM office and the line hierarchy, primarily by goal setting and control of their accomplishment.

3.3.6. Exploitation ratio (ER)

Net savings indicator measures the "weight" of a particular suggestion in terms of its contribution to an increase of revenues or decrease of costs. Thus, it is a measure of every suggestion's quality and an attribute of the suggestion itself (and responsibility of inventor). However, the Exploitation ratio as an average net savings per suggestion and thus the responsibility if IM system.

$$ER = \frac{Net\ savings\ from\ suggestions\,(Out5)}{No.\ of\ implemented\ suggestions\,(Out4)}$$

The evaluation of this indicator requires a certain level of caution. In some companies, the net savings per suggestion are much higher than in the others. This can be a sign of different approaches to IM (e.g. a mass approach with lower savings or production of ideas in

interdisciplinary teams composed predominantly of professionals). So, this indicator must be considered in the context of other indicators (above all the Popularization ratio). A low number of suggestions and low savings per suggestion do not demonstrate a successful IM.

However, irrespective of the IM approach chosen, the goal is to raise this indicator. This means to raise the creativity level, e.g. by systematic employment of creativity techniques, raising the quality of solutions by team work and support quality by an appropriate bonus system which discourages inventors to take suboptimal solutions to problems.

3.4. Questionnaire structure and pilot testing

The questionnaire consists of the introductory part and two sections. In the introduction some basic information on the company have been asked for; company name and address, number of employees, number of blue-collar workers, respondent's personal data and the organizational type of IM.

In the second part input and output parameters of IM have been examined, i.e. the qualitative characteristics of the process. This part is divided into 11 factors; each consisting of 9 to 18 statements. The respondent evaluates each statement and decides for a mark between 1 (not agree) and 5 (completely agree). The possibilities »I do not know« and »Does not relate« are also provided.

The third, quantitative part of the questionnaire investigates the IM results. In order to assess the progress of a separate company in the field of these results, there are questions, related to the achievements for each year within the last three years. Since all the companies do not attend or control (supervise) all the results, the respondents have been asked to answer in the best way they can, i.e. in the case they do not know the date exactly, they form at least an estimate.

On the basis of the validated questionnaire, a pilot study has been carried out in June 2005 on the panel of 50 medium-sized and large companies that employ a total of 53,000 employees which account for approximately 10 % of all people employed in the business sector.

The panel of companies, included in the pilot study, consisted of all the companies which, according to the data of Chamber of Commerce and Industry of Slovenia, are active in the field of IM. The Chamber of Commerce and Industry is the major national association of enterprises, having also the Innovation and Intellectual Property Commission under its own patronage. The Chamber's database has been extensive enough to conclude that all the relevant companies have been included in the study. The sample considered is rather large; however, it does not allow drawing conclusions on the politics in Slovene companies that are not involved in IM. Since the tested panel included 82 % of manufacturing organizations and only 18 % of organizations producing services (which does not correspond to the ratios at the national level), this model may be valid predominantly for manufacturing environment.

Since the topic is rather specific and the answers of the employees with different status in the organization would have been different, it was very important that the questionnaire had been filled-out by a person, who is actually in charge if IM. So, the questionnaires have been sent to personal addresses of the responsible persons.

The questionnaire has not been anonymous; however, it was assured that all the data would be kept confidential and published exclusively in aggregated form.

4. RESULTS

In the qualitative section of the questionnaire, the characteristics of IM in a company were assessed upon the respondent's judgement. Within this, the 5 input parameters In_i and the 6 process parameters $Proc_i$ (as shown in Table 1) of this process were evaluated separately. In the quantitative section, the achieved results of the company in the field of IM, i.e. the output parameters Out_i (as shown in Table 2) were assessed.

On the basis of the pilot study we wanted to verify the existence and nature of relationship between the values of input and process parameters and output results of IM (expressed as performance indicators being calculated from Out_i as shown in Chapter 3.3). For this purpose, each value ($M_{i,j}$) of a factor i for the company j was calculated as arithmetic mean of the values of all the statements, given by the respondent within every factor.

The values $M_{i,j}$ for a company were entered into a radar diagram. In case the single values are similar one to another, hence not indicating any major deviations upwards or downwards, the radar diagram is more symmetrical (a regular circle). Mathematically, this regularity is represented as standard deviation of the values for single factors.

Here a presumption was made that for a company j it is favourable to reach similar values of input and process parameters ($M_{i,j}$), thus a low standard deviation of values $M_{i,j}$ and a rather symmetrical radar diagram.

Figure 1 shows the factor's values M_i for 3 companies from both extremes of the sample in consideration – the one with the most balanced IM system (A), the one with the least balanced (C) and an average one (B). For company A, a fairly symmetrical radar diagram can be seen. Besides that, we can graphically establish the highest average values M_i for company A. The opposite holds for company C.
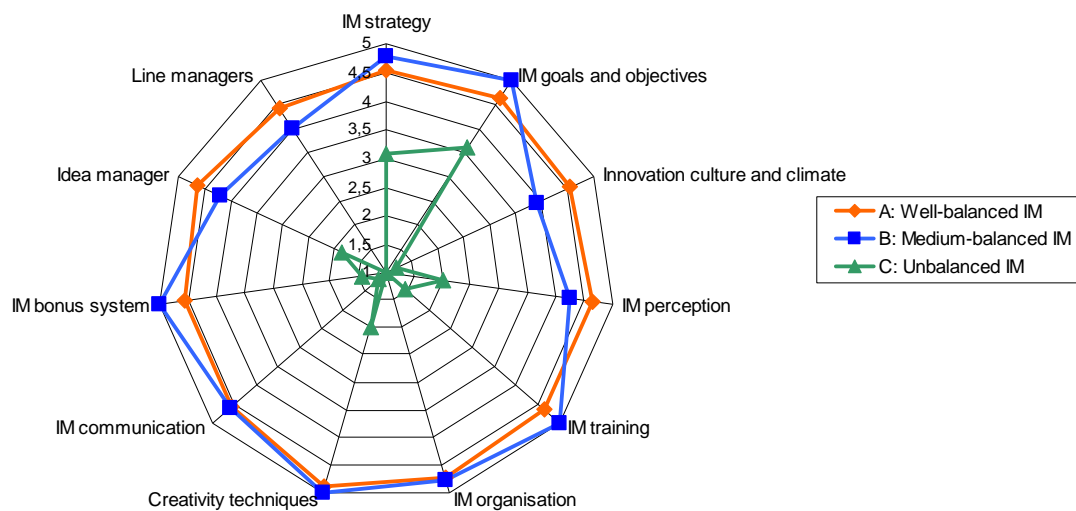
Figure 1: Average values of factors for a company with the most balanced IM system (A), the one with the least balanced (C) and an average one (B)

To verify the presumption that low standard deviation of values M_i implies higher output indicators, the companies were grouped into three equal groups on the basis of their standard deviation of values M_i. Companies in the first group (*well balanced*) reached a standard deviation $SD = 0.28$, second group (*medium balance*) a $SD = 0.42$ and third group

(*unbalanced*) SD = 0.66. For these groups of companies, we wanted to confirm how their input/process value (un)balance affects their IM results. We found out (

Figure *2*) that the economic effect of IM (return ratio RR) for the "well balanced" companies reaches more than six fold higher values of RR than for the "unbalanced". The companies that keep developing their IM in a systematic way earn with their employees' ideas several times more (per employee) than the ones less methodical! Also the other output indicators, not shown here, demonstrate a similar trend.
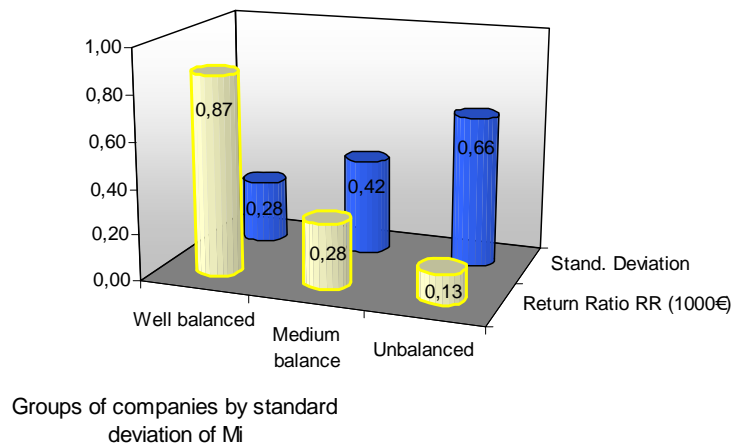
Figure 2: Relationship between the balance of organizational factors of IM and its return ratio (RR)

As shown above, a balanced management of all the influential factors of IM relates highly positively with the IM performance. An excellent performance in strategy formulation, goal setting or employee training without a well-established communication system or bonus scheme makes the IM system essentially less efficient. The success of IM chain is determined by its weakest link. The analysis confirmed the presumption that the balance of input and process parameters determines the output performance of IM.

5. DISCUSSION

The purpose of our research was a development of performance measurement model for idea management in organizations. For this purpose, a questionnaire examining the inputs to this process, the process itself and its outputs was developed, as well as a set of indicators to evaluate the quality of the output from IM process. The suggested model links the input and process (i.e. directly controllable) parameters of IM with the output (indirectly controllable) parameters. By aggregating the individual performance indicators of IM into composite ones, the proposed methodology overcomes the deficiency of past research in this field.

A pilot study of 50 Slovenian companies active in IM has proved the adequacy of the proposed methodology for a quick evaluation of the IM performance. The study has also shown that a simultaneous, well balanced development of all the input and process subsystems of IM leads to a substantially higher IM performance than a development of single subsystems only. The application of appropriate control measures to the directly controllable parameters may lead to essentially higher output results. Therefore, the pilot

study has shown not only the suitability of the proposed methodology but also some other valuable results.

Some limitations of our research can also be established. Such a complex management field as the IM definitely is can only hardly be investigated in detail by means of a questionnaire, however elaborated it may be. However, the proposed methodology is a trade-off between the profundity of evaluation and ease of use (i.e. simplicity and evaluation speed).

Since the tested panel included 82 % of manufacturing organizations and 18 % of service organizations (which does not correspond to the ratios at the national level), this model may be valid predominantly for manufacturing environment. However, experience shows that IM is much more present in companies producing goods than the ones producing services.

The methodology is limited to organizations having an active IM system as well as established basic measures for its quantitative evaluation. For such organizations, this methodology may represent a tool for a longitudinal assessment of their progress and an inter-organizational benchmarking. For other organizations, the questionnaire may serve as a systematic checklist for determination of the present state and possible measures for its improvement. A partial deficiency of the pilot study is the subjectivity of evaluation made upon responses of only one person (the idea manager) per each organization, in spite of the fact that the questionnaire statements refer mainly to the factors that can be objectively assessed. In any case, the average results at the level of 50 companies are relevant. For an in-depth analysis of a single organization, the questionnaire needs to be filled-out by more than one person and complemented by other methods of qualitative analysis (e.g. semi-structured interview).

Possible extensions to this research may lead in three directions: firstly, towards the in-depth analyses of IM at the level of an organization; secondly, towards the development of a methodology for a quick evaluation of the IM state on the randomly selected sample of organizations; and thirdly, towards an extended comparative research of IM in different national environments with different entrepreneurial and innovation culture.

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CLUSTERS – AN ATTEMPT TO RESPOND TO THE GLOBALISATION CHALLENGE?
THE CASE OF POLAND.

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1. INTRODUCTION

Globalisation, which manifests itself as an increasing market harmonisation - i.e. deregulation and liberalisation of international transfer of goods, services, and factors of production - increases the significance of the company's immediate environment for its market success, a fact which may seem paradoxical. These phenomena escalate business entities' propensity for concentration: firms conducting similar activities concentrate in certain countries, regions or locations (Patel, Pavitt 1991, Amendoa et.al. 1992, Patel, Vega 1999). Among other things, this manifests itself in the creation of clusters. Porter defines clusters as: "geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries (e.g. universities, standards agencies, trade associations) in a particular field that compete but also cooperate (Porter 1998)." That means that all functions of a value chain are distributed and represented by a number of enterprises and other organizations within a region that are linked by commonalities and complementarities.

The discussion of clusters in the economies of countries which have undergone economic and systemic transformation, especially Poland, is rather limited. This is why the present authors attempt to present what has been found so far on the subject of clusters in Poland, with particular emphasis laid on a furniture cluster in the region of Wielkopolska. The discussion starts with a brief review of possible channels of a cluster's influence on the competitiveness of companies-cluster members. Next, using data presented in the literature and professional

press, and the results of their empirical research, the authors describe Wielkopolska's furniture cluster, with special emphasis laid on:

- first, the significance of companies' cluster membership for their competitive potential, in other words, a set of those features of the company which are crucial to the implementation of a given strategy and achievement of a desired position in the market (amongst its rivals) (Competitive gap at the company level 2002).

- second, its significance for the competitive behaviour and competitive position of the companies under study. A company's competitive position can be identified with the competitive strategy it pursues, that is, the adopted way of exploiting its competitive potential in a given environment; it is an effect of having a given level of competitive skills/competence (Competitive gap at the company level 2002).

2. THE INFLUENCE OF A CLUSTER ON THE COMPETITIVENESS OF COMPANIES – CLUSTER MEMBERS

The question of how clusters influence the competitiveness of the companies that constitute it bothers many a researcher. Sources of the competitive advantage of companies which constitute a cluster lie, on the one hand, in their competitive potential, and on the other, in their immediate environment, which is typical of the viewpoint put forward by Porter. A company's activity within a cluster enables it to use both approaches to the building of a competitive advantage, and the cluster itself enhances their complementary character. On the basis of empirical data, Audretsch (1998) and Porter (1998) have demonstrated that a geographical concentration of rivals increases company competitiveness, stimulating innovativeness, company growth and new entries into the cluster.

Table 1 presents those views on a cluster's influence on the competitiveness of its member companies which are most often quoted in the literature. A closer analysis of the advantages of cluster membership suggests that the most common area of a desired influence is company competitive potential. Cluster membership first of all expands, transforms and gives a new quality to elements of company competitive potential; secondly, it determines the character of relational competitive strategies, thus creating a wide field for co-operation with rivals-other cluster members. Therefore, the scope of the cluster's immediate influence concerns two out of three determinants of company competitiveness. The third one – company competitive position – experiences some sort of indirect influence.

Table 1. The main advantages of cluster membership and their connection with the determinants of company competitiveness

Advantages of cluster membership	Interpretation	Determinant of competitiveness
Access to specialised and highly advanced resources, such as key skills and risk capital	Basic, uncomplicated, usually material resources are available through purchases in the global market or through companies' foreign direct investments; specialised resources are usually immobile	Competitive potential
Access to specialised suppliers,	Positive impact on industry	Competitive potential

services, and infrastructure	specialisation, improvement in its effectiveness, stimulating technological spillover	
Access to demanding customers whose needs anticipate changes in the international market	The needs can be identified and responded to earlier; changes in customer needs exert pressure on innovativeness	Competitive strategy
Proximity of market rivals, who fight for industry leadership	Factor which exerts pressure on innovativeness, especially in industries where competition has a non-price character	Competitive strategy
Proximity of innovative related industries, supporting industries, and related institutions	Similarities in technologies, skills, customers, infrastructure, suppliers and functions played have a positive impact on technological spillover.	Competitive potential
Proximity of other intsitutions connected with the cluster	Positive influence on co-operative processes, e.g. proximity enables a better risk management connected with innovations	Competitive strategy

Source: Own study, based on Marshall (1949), Porter (1998), Freeman (1991), Zander, Sölvell (1995).

There seem to be two key ways in which a cluster can influence company competitiveness:

- first, spillover effects observed in the cluster,

- second, relations existing among institutions constituting the cluster.

The other possible channels of influence are a consequence of the relations among companies and of spillover effects.

2.1. Knowledge spillover effects as a symptom of the cluster's influence on company competitiveness

The issue of spillover effects and their relationship with the location factor was raised by Marshall (1949), who indicated that one of the objects of a spillover is knowledge. The problem of knowledge spillover with the consideration of the geographical space factor is also discussed by many contemporary researchers.

Knowledge spillover effects are an inseparable element of a cluster. This spillover can occur even if relations between companies are non-existent. It should be pointed out at this point that in the subject literature we can find two different views on whether relations among companies enhance the influence of spillover effects on company innovativeness and growth. The view represented by Marshall (1949), Arrow (1962) and Romer (1986) is characterised by a positive attitude towards monopoly, which, in their opinion, is conducive to increased innovativeness and growth. Monopoly enables a dominating company to maximise the return on innovations, which is impossible in a competitive environment. On the other hand, Jacobs's (1969) point of view indicates a desirable influence of competiton on innovations and growth. Jacobs's perspective was developed by Porter, who emphasises the significance of local competition for innovativeness and stimulation of knowledge spillover effects. Continuing Jacobs's and Porter's argument, it could be stated that knowledge within a cluster is determined by interrelations among companies operating in the same location (Henry, Pinch 2002). Storper (1993, 1995) similarly explains that the acquisition of knowledge occurs

thanks to relationships among companies which have nothing to do with a market exchange typical of knowledge acquisition through licensing, alliances or takeovers.

Attempts are even made to build a knowledge-based theory of regional geographic clusters (Maskell 2001, Morgan 1997). Maskell (2001) finds the key cause of cluster creation in the fact that companies appreciate it that such solutions generate knowledge. There are even instances of creating a "community of practice", characterised by its own identity and certain specificity (Brown, Duguid 2001). By operating within this "community", companies develop their know-how and, thanks to the relations existing among them, share tacit knowledge with each other. Cluster-level knowledge is similar to industry routines, recipes for success and how to perform particular activities (Spender 1989). While studying Taiwanese high-tech companies, Tsai (2005) found that intra- and inter-industrial spillover effects in the field of R&D have a greater significance from the viewpoint of production growth than individual companies' efforts in the field of R&D do.

2.2. Interactions as a manifestation of relations among cluster members and their significance for company competitiveness

With reference to the second kind of influence which a cluster has on its member companies' competitiveness, it can be stated that the consequences of spillover effects are accompanied by implications arising from the fact that companies enter into relationships. Therefore, rivalry and co-operation among companies within a cluster can act as a corrective mechanism for their competitiveness. This thesis is clearly inspired by Porter's opinion that the company's immediate environment, particularly the relations among companies in geographical proximity, are of great importance for the competitiveness of an organisation.

An interesting interpretation of external sources of competitive advantage was put forward by Dyer and Singh (1998), who attempt to endorse what is called a relational approach to competitive advantage. In their opinion, relations among companies are increasingly often a source of above-average profits. The analysis which the two authors conducted suggests that resources which are crucial for gaining a competitive advantage may lie in routines and processes developed among companies. Their approach is a continuation of earlier research focussed on the issue of companies' co-operation as a method of getting economic benefits in such forms as the acquisition of knowledge and skills, i.e. learning from others, lowering transaction costs or having access to certain resources (Hamel 1991, Larson 1992, Powell, Koput, Smith-Doerr 1996).

Asanuma (1989) was one of the first researchers to demonstrate how capabilities rooted in relations among existing companies affect competitiveness. Using Japanese suppliers and car manufacturers as an example, he explained how these relations led to the co-operating companies' financial surpluses and competitive advantage. Saxenian (1994) found that Hewlett Packard and other Silicon Valley companies considerably improved their position by developing long-term relations with suppliers located in geographical proximity. Dyer (1996) pointed to a positive relationship between suppliers and car manufacturers investing in the construction of a network of relations and their market position. Many researchers also demonstrated that physical proximity, which is connected with companies making investments in certain locations, stimulates co-operation and co-ordination among companies, thus improving their competitive position (Enright 1995).

3. POLAND'S EXPERIENCES WITH REGARD TO CLUSTER INITIATIVES

Interest in cluster issues can be observed nowadays not just in the "old" but also in the "new" EU countries, including Poland. However the OECD states that nothing has been done in Poland to promote clusters (OECD 2005, p.5).

In 2004, under the auspices of the Competitiveness Institute, research was carried out into cluster initiatives on a global scale. The research results were presented in the "Green Book of Cluster Initiatives". The list of 238 undertakings of this type which were investigated in 2003 featured one from Poland – Tarnów Industrial Cluster "Plastic Valley". In Poland, it is the Institute for Market Economics (IBnGR) that has devoted a lot of attention to clusters. As early as 2002, the Institute launched a research project to study and determine the possibility and method of exploiting the economic cluster conception with a view to increasing the competitiveness and innovativeness of the Polish economy. The research managed to identify an industrial automation quasi-cluster in Gdańsk, a printing cluster in Warsaw and a construction cluster in the Świętokrzyski region. The beginnings of a cluster structure can also be found in the Warsaw agglomeration, in industries such as farmaceuticals and cosmetics (NACE 24.4, 24.5 and 73.1), electronics, information technology, and telecommunication. These industries require access to well-qualified labour and a technologically advanced scientific base, which justifies their concentration around Poland's capital.

As for the industrial automation quasi-cluster in the Gdańsk region, this grew next to the shipbuilding industry, which accounts for a large proportion of Pomerania's exports (Szultka, Wojnicka 2003). Shipyards' core activity seems to have given rise to a sector of companies dealing with industrial automation - approximately sixty companies in all, nearly half of which (22) are manufacturing firms, 19 provide only services in the fields of design and implementation of industrial automation systems, another seven are manufacturing and services firms, and nine are strictly trading firms. The industry employs about 2,200 people. A great majority of the firms are SMEs (only some of them are micro-firms employing up to 10 people) – only two firms employ more than 500 people.

Results of a questionnaire concerning the work of industrial automation companies in the Gdańsk region show the positive attitude of these institutions towards co-operation. Within this quasi-group we can observe the formation of new firms ("spin-offs"), which is conducive to the cluster's specialisation and increasing self-sufficiency. As a result, these companies maintain a high competitive position which gives them the capacity to compete with strong international companies in the Polish market; in the recent years they have been increasingly often entering foreign markets with their products.

One pro-cluster initiative seems to be the move made by aerospace industry entrepreneurs: on 11 April 2003, they set up the Aviation Valley Association of aerospace-industry entrepreneurs (http://www.paiz.gov.pl/index/?id=955cb567b6e38f4c6b3f28cc857fc38c). The majority of companies involved in the project are situated in the Podkarpackie province. The main aim of Aviation Valley is to transform south-eastern Poland into a leading European aerospace-industry region which will provide the most demanding customers with various aerospace-industry products and services. At present, the Aviation Valley Association consists of 36 members based in the region; other candidates are going through the application process. Within the next few years, the association intends to increase the number of members to 100. Last but not least, a study carried out by IBnGR has shown that there is a concentration of furniture companies in the region of Wielkopolska. Findings concerning this cluster will be presented in the next parts of this paper.

4. FURNITURE CLUSTER IN THE REGION OF WIELKOPOLSKA

4.1 Findings to date

The empirical research conducted by the present authors among members of the furniture cluster in Wielkopolska was preceded by relevant literature studies. The Polish furniture industry is considerably diversified in terms of size, form of ownership, and organisational structure (Zarzycka 2005, p. 390). In 2001, as many as 93% of approximately 23,000 businesses were micro-firms. However, the 15 biggest entities accounted for 75% of the sales value. The private sector's share was 95%, while the share of companies controlled by foreign capital amounted to 50%. In its analysis of clusters' potential and development opportunities, IBnGR identified a concentration of furniture-industry businesses (Report about SME, 2001, p. 223-224).For the purposes of the above-mentioned research, IBnGR used the location quotient (LQ)[1], which in Poland was found to have reached the highest value (1.25) in the Wielkopolska province, which is proof of high concentration and specialisation in this field (Report about SME, 2001, p. 223-224). The furniture sector shows clear connections with raw-materials industries and with industries horizontally connected with timber processing. On the basis of statistical analysis, IBnGR found that at the county level the location of furniture-industry companies (NACE 36.1) is clearly and positively correlated with the location of companies representing industries from lower levels of the value creation chain (NACE 0.20 – forestry and logging). Wielkopolska's furniture cluster is made up of furniture companies which, in the field of R&D, co-operate with the Wood Technology Institute of the Poznań University of Agriculture, REMONDEX (a furniture-industry development institute), the Poznań Academy of Fine Arts, and Poznań Technical University. An important role in the cluster is played by the Poznań International Fair. The cluster has an enormous development potential, which results from the furniture industry's outstanding export performance and its extremely positive impact on the volume of Polish exports in general. Information available at the Wielkopolska Centre for Interregional Economic Co-operation, affiliated to the Marshal's Office in Poznań, suggests that companies appreciate the significance of co-operation for improvement in their innovativeness.

Evidence of the existence of a furniture cluster in Wielkopolska includes not only a concentration of the above businesses but also the presence of large, pre-1989 furniture companies which have been divided as a result of economic restructuring. The Wielkopolska region's furniture industry is dominated by micro-firms, which also seems to prove the existence of a pro-cluster environment in the region. Since 1990, this dominance has been clearly visible especially in Wielkopolska's district of Swarzędz. The structure of Wielkopolska's furniture industry, which makes the region a suitable location for a furniture cluster, results from several facts (Stryjakiewicz 1999, p. 153):

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[1] The Location Quotient has been calculated using the formula $L = \dfrac{A}{B} : \dfrac{C}{D}$, where A – employment in the furniture industry (NACE 36.1) in a given region, here in Wielkopolska, B – total employment in the whole region (here in Wielkopolska), C – national employment in the furniture industry (NACE 36.1), D – total national employment. The employment figure can be replaced with the number of companies, sales revenue, export revenue or net profits. If LQ=1, then a given region, here a province (voivodship), has the same share of employment in a given industry as the national economy does. LQ>1.25 is usually seen to indicate a given region's specialisation in a certain industry. The quotient enables the identification of locations with an above-average concentration of businesses in a given industry.

- weakened competitiveness of businesses in Swarzędz, caused by Poland's furniture industry being taken control of by German investors (we have also seen an inflow of Swedish, American and Swiss capital to the Polish furniture industry),

- increase in timber prices, caused by a higher demand for this raw material and higher imports of the material,

- chance to activate the district of Swarzędz through the development of SMEs, whose activity would be based on tradition, experience and existing connections in the value-added chain.

The local carpentry tradition "goes back to the seventeenth century, and its strongest development took place in the nineteenth century". According to Stryjakiewicz, the characteristic features of the furniture-company cluster in the Swarzędz district are:

- high specialisation within sections,

- high quality of products,

- flexibility to meet customer needs,

- manufacturers' good skills,

- presence of a local entrepreneurship culture.

In spite of this, the early 1990s saw a slump in exports, then in production, which forced companies to limit their production capacity. This was an effect of increased foreign and domestic competition, and of using the wrong development strategy. The strategy was based on an extensive range of traditional products, an own distribution system, and expensive logistics. The network of connections with the environment was developed only to a small extent. Therefore, the development of a cluster initiative in the region seems to be particularly valuable. These needs are met by the initiative named "Support for the Development of the Wielkopolska Furniture-Industry Cluster", implemented as part of the Integrated Operation Programme for Regional Development 2005-2007, and financed by the European Social Fund. The project is conducted by Wielkopolska Agencja Rozwoju Przedsiębiorczości Sp. z o.o. (WARP, or Wielkopolska Entrepreneurship Development Agency). WARP acts as a cluster "broker" responsible for communication and initiation of new projects. So far, WARP has created a database of information about Wielkopolska's furniture companies, selected furniture-industry suppliers and purchasers, research and development centres, and schools (secondary and tertiary) related to the industry. It has also established contact with approximately a thousand firms, provided them with promotional information on the project, and sent them a questionnaire concerning the cluster initiative. Thirty-seven businesses returned the questionnaire, declaring participation in the cluster initiative.

4.2. Empirical research among members of the furniture-industry cluster

4.2.1. Object of research

The furniture-industry cluster also became an object of the present authors' research.

In the present paper, the authors focus on the significance of cluster-membership for the competitive potential, competitive position and competitive strategy of the companies they investigated in the furniture industry, as well as in related and supporting industries.

4.2.2. Research method

The empirical research into the role played by clusters in supporting international competitivenes and the internationalisation of Polish companies, in particular Wielkopolska's furniture-industry cluster, was carried out in July and August 2006. The main criterion for sample selection was first of all a company's location in the region of Wielkopolska and second, its activity. A key factor was company representatives' consent to participate in the research. The most important thing was to select companies which are based in Wielkopolska and which operate in the furniture industry broadly understood, and in supporting or related industries. Another requirement was for the research to involve companies whose activity covers different links of the value chain: providers of raw materials and components, producers of finished goods, companies dealing only with marketing or the sale of certain products.

An address list of potential questionnaire respondents was prepared in conjunction with the Wielkopolska Entrepreneurship Development Agency (WARP).

The selection criterion for industries to be included in the research was that they should be industries with observable co-operation and internationalisation tendencies, because activity in the international market, which in addition to the domestic market also includes foreign markets, is a test of the company's international competitiveness. When selecting companies for the research, the authors used the most typical case of non-random sampling – deliberate selection, which consisted in a rather formal and subjective selection of items for the sample, with the hope of obtaining information that is as detailed as possible. Above all, company selection was determined by practical considerations – belonging to the industries selected for the research, and company location. The company-selection method that was used has an impact on the interpretation of the results obtained. The sample size (31 companies) and the sample selection method prove its low representativeness. Therefore, the research results cannot be generalised to refer to the whole population since they describe only the situation within the group of companies investigated.

In the research, the authors used the individual in-depth interview method. Selected pre-trained people (students and academics) conducted interviews using a previously developed questionnaire, which was a basic research tool during the interview. Having conducted the interviews, the research team and the interviewers checked the formal accuracy of the completed questionnaires.

In the next stage of the research, the raw data in the form of completed sheets were subjected to encoding and statistical processing.

4.2.3. Questionnaire

The tool used in the research was a questionnaire consisting of 21 scaled questions, grouped according to subject into six parts. The first part contained questions enabling the respondent generally to characterise the company under study in terms of: employment figures, legal status, percentage of public (including foreign) capital, sales revenue, and financial performance (for the years 2000-2005).

The second part of the questionnaire was titled "A cluster and competitive potential". Responses to the questions set in this part enabled the authors to determine the reasons why the companies under study are based in Wielkopolska, and the significance of this fact for the size and quality of their competitive potentials.

The aim of the third part of the questionnaire was to identify the relationship between cluster membership and the competitive position and competitive strategy of the firms investigated. Questions focused on the relations which the firms under study enter into so as to determine whether their industries are characterised by co-operation in addition to rivalry. In another part, respondents were requested to answer a question about the consequences of co-operation from the viewpoint of company competitiveness. Next, respondents were asked to indicate co-operation areas.

The fourth part of the questionnaire concerned the relationship between the cluster and company internationalisation. First, respondents were asked about their export involvement – they were requested to specify the share of export sales in their total sales. Next, the companies under study evaluated the significance of co-operation with selected businesses for their internationalisation.

The fifth and sixth parts of the questionnaire concerned the tasks of economic self-government and economic policy instruments, respectively. Respondents were to evaluate many tasks and instruments from these areas in terms of their usefulness and implementation.

4.2.4. Research sample

The research involved 31 companies. The largest group was that of companies which are part of the furniture industry broadly understood – class 36 of the Statistical Classification of Economic Activites in the European Community - Nace Rev.1.1. They included especially businesses operating as part of the following sub-classes:

36.11. Z – Manufacture of chairs and seats

36.12. Z – Manufacture of other office and shop furniture

36.13. Z – Manufacture of kitchen furniture

36.14 A - Manufacture of other furniture, excluding services

36.14. B – Finishing of furniture

In addition to manufacturing and services companies from class 36, the research also involved businesses from related industries and industries supporting the furniture industry, especially those representing the following sub-classes:
52.44.Z - Retail sale of furniture, lighting equipment and household articles n.e.c.

20.20.Z – Manufacture of veneer sheets, boards and plywood

51.15.Z - Agents involved in the sale of furniture, household goods, hardware and ironmongery

51.53.A Wholesale of wood

51.18.Z - Agents specialising in the sale of particular products or ranges of products n.e.c.

51.90.Z – Other wholesale

In terms of the number of employees, the majority of the sample are small businesses. More detailed information on the number of employees is presented in Table 2.

Table 2. The number of employees in the companies investigated

Number of employees	Number of companies	Percentage of responses
< 50	2	6.5
50-99	17	55
100-249	6	19
250-499	2	6.5
500-999	1	3.2
1,000 and more	1	3.2
No data available	2	6.5
Total	31	100.00

Source: Own study, based on questionnaire survey

More than a half of the companies under study employ from 50 to 99 people. The research involved one company employing over 1,000 people.

In terms of legal status, 58% of the firms investigated are sole traders, 29% are commercial code companies, most of which are limited liability companies, but there are also registered partnerships. Approximately 6% of the firms under study have a legal status other than those listed in the questionnaire – civil partnerships. The questionnaire respondents included also two state-owned companies, one of them employing over 250 people. The companies' characteristics in terms of legal status are presented in Table 3. Table 4 shows detailed data, taking into consideration the share of foreign capital in the ownership structure of the group investigated. A characteristic feature of the respondents is not only the dominance of private capital in their ownership structures but also the practical absence of foreign capital. The majority of the companies under study are Polish firms with a 100% share of Polish capital in the ownership structure. The research involved only three institutions with foreign capital, which in one case amounted to 100% (see Table 4).

Table 3. Legal status of the firms investigated

Firm's legal status	Number of firms	Percentage of responses
Commercial code company	9	29.03
State-owned company	2	6.45
Co-operative	0	0.00
Sole trader	18	58.06
Others	2	6.45
No data available	0	0.00
Total	31	100.00

Source: Own study, based on questionnaire survey

Table 4. Percentage share of public capital and foreign capital in the ownership structure

Share of public capital, as %	Number of companies	Share of foreign capital, as %	Number of companies
0	30	0	28
1-10	0	1-10	0
11-24	0	11-24	0
25-49	0	25-49	1
50-74	0	50-74	0
75-99	0	75-99	1
100	1	100	1
Total	31	Total	31

Source: Own study, based on questionnaire survey

Polish companies account for over 96% of the whole group. This by no means reflects the situation on the Polish market. The furniture industry is experiencing a considerable expansion of foreign investors, including German investors, who control 80% of the industry's biggest companies (Okrzesik 2001). The main aim of the project is to investigate the significance of operating in a real/potential cluster for Polish companies' competitiveness and internationalisation tendencies – this is why such characteristics of the sample seem to be adequate. The majority of the companies selected for the sample were of Polish origin.

As part of sample description, respondents were also asked to provide data concerning the sales revenues and financial performance for the years 2000-2005. However, these questions did not draw a positive response from many respondents, most of whom were reluctant to impart relevant information for the years 2000, 2002, 2004 and 2005. Questions related to financial issues very often meet with a negative reaction from companies – therefore it is difficult to receive answers to them. Tables 5 and 6 present the sales revenues and financial performance, respectively, of those companies that agreed to provide relevant data. Very frequently, respondents gave data only for the years 2004-2005. Only 10 companies, or approximately 30% of the sample, provided full information, stating the value of sales in the years 2000, 2002, 2004 and 2005. The response rate is even poorer in the case of information concerning financial performance, only six companies (less than 20%) having exhaustively answered the question set.

Table 5. Sales revenues for the years 2000-2005

	A	B	C	D	E	F	G	H	I	J
Number of companies	10	1	10	8	10	1	5	3	3	4

Source: Own study, based on questionnaire survey

A. number of full answers given, i.e. for the years 2000, 2002, 2004 and 2005

B. increase in 2002 on 2000

C. increase in 2004 on 2002

D. increase in 2005 on 2004

E. decrease in 2002 on 2000

F. decrease in 2004 on 2002

G. decrease in 2005 on 2004

H. no change in 2002 on 2000

I. no change in 2004 on 2002

J. no change in 2005 on 2004

The data obtained suggest that especially the 2002-2004 period was one of growth in sales revenues. The majority of the companies that answered this question pointed to growth in sales revenues in just those years. The same period was also the most prosperous in terms of financial performance.

Table 6. Financial performance in the years 2000-2005

	K	L	M	N	O	P	Q	R	S	T
Number of companies	6	3	6	3	3	0	4	3	3	3

Source: Own study, based on questionnaire survey

K. number of full answers given, i.e. for the years 2000, 2002, 2004 and 2005

L. increase in 2002 on 2000

M. increase in 2004 on 2002

N. increase in 2005 on 2004

O. decrease in 2002 on 2000

P. decrease in 2004 on 2002

Q. decrease in 2005 on 2004

R. no change in 2002 on 2000

S. no change in 2004 on 2002

T. no change in 2005 on 2004

4.2.5. Competitive potential of the companies under study

During the research, the authors attempted to identify the channels through which the company's membership of a potential/real cluster influences its competitiveness. The influence is exerted by the specific context in which a company-cluster member operates. The context is closely related to the quantity and quality of the resources, broadly understood, which are available to a cluster member. The issue was covered by questions 6 and 7 of the questionnaire. In question 6, respondents were asked to assess a list of eight reasons why their companies are based in the region of Wielkopolska. Additionally, they could give another reason, not included in the questionnaire. The assessment was made with the use of a five-

step scale, starting with 0 – "no significance", through 1 – "minimal significance", 2 – "moderate significance", 3 – "considerable significance", to 4 – "very considerable significance". Results for eight of the reasons listed in the questionnaire are between 1 and 2, which suggests that the reasons for locating a company in Wielkopolska which the questionnaire mentions are, at best, of moderate significance. Were we to select the most important one, it would turn out to be proximity of key customers (1.90). Proximity of strategic market rivals ranks second (1.86). However, as many as 77% of the respondents cited as a very significant reason their family running a similar business in Wielkopolska in the past, which the questionnaire did not list explicitly. Representatives of the companies investigated wrote such an answer on their own in the section headed "Other". Table 7 presents reasons for locating the companies under study in the Wielkopolska region.

Table 7. Significance of reasons for locating the company in Wielkopolska

Reasons	Percentage of responses	A	SD
1. Access to the market in general	90	1.46	1.43
2. Proximity of key customers	94	1.90	1.47
3. Availability of labour	94	1.69	1.23
4. Educational base – schools and professional training institutions	94	1.21	1.35
5. Availability of cheap resources – local suppliers can achieve economies of scale	94	1.31	1.23
6. Availability of specific resources, typical of a given location	94	1.21	1.21
7. Proximity of strategic market rivals – easier observation and benchmarking	94	1.86	1.33
8. Great significance of the local context/environment – interception of local knowledge and information from the environment	94	1.34	1.14
9. Other (e.g. historical determinants, family business)...	77	3.50	0.93
A – Average, SD – Standard Deviation			

Source: Own study, based on questionnaire survey

Also question 7 attempted to identify the influence of a real/potential cluster on company international competitiveness. Companies were asked to estimate the extent to which Wielkopolska's resources and their features satisfy the company's needs. The resources were assessed on a five-step scale, where 0 signifies that given resources do not satisfy company needs at all, 1 – satisfy them minimally, 2 – satisfy them moderately, 3 – satisfy them to a large extent, 4 – satisfy them to a very large extent. The respondents stated that the resources listed satisfy their needs at best to a moderate extent. Personnel availability, skills and costs were assessed best (2.38). The availability and costs of venture capital received the lowest mark (1.07); however, only 90% of the companies investigated expressed their opinion on the issue, compared with as many as 97% of respondents who assessed material resources.

Table 8. Extent to which Wielkopolska's resources satisfy company needs

Resources	Percentage of responses	A	SD
1. Personnel availability, skills and costs	94	2.38	0.98
2. Availability and quality of material resources	97	2.07	1.14
3. Scientific, technical and market knowledge	97	2.00	1.26
4. Availability and cost of venture capital	90	1.07	1.25
5. Quality and cost of infrastructure (including institutions and public goods)	94	1.66	1.17
A – Average, SD – Standard Deviation			

Source: Own study, based on questionnaire survey

4.2.6. Strategy and competitive position of the companies under study

A characteristic feature of clusters is confrontational/co-operative relationships among their members. The majority (nearly 70%) of the respondents are of the opinion that in their industry, in addition to rivalry, one can find instances of co-operation. The companies under study were asked about local and non-local institutions they co-operate with. It was found that the respondents formally co-operate with all of the institutions listed (see Table 9). The largest percentage of respondents co-operate with suppliers (nearly 84% of those questioned); customers ranked second (61%). What is worrying is an extremely small percentage (3%) of companies co-operating with local government. Formal co-operation takes the form of joint provision of services, joint marketing activity, and contracts for the supply of raw materials.

Table 9. Local institutions co-operating formally with the companies under study

Institution	Number of responses	Percentage of responses
1. Competitors	4	12.90
2. Industry organisations	11	35.48
3. Suppliers	26	83.87
4. Customers	19	61.29
5. Research and development institutions	10	32.26
6. Market research and analysis agencies	9	29.03
7. Distribution and marketing organisations	7	22.58
8. Local government and other institutions	1	3.23
9. University and other schools	7	22.58

Source: Own study, based on questionnaire survey

As for informal co-operation with local institutions, the largest percentage of responses mention customers (45%). In the second place were not suppliers but competitors, with nearly 39% of responses. The respondents' answers show that formal co-operation with local institutions is much more popular than informal co-operation with Wielkopolska's organisations. Table 10 shows responses of the companies investigated concerning informal co-operation with institutions from Wielkopolska.

Table 10. Local institutions co-operating informally with the companies under study

Institution	Number of responses	Percentage of responses
1. Competitors	12	38.71
2. Industry organisations	8	25.81
3. Suppliers	11	35.48
4. Customers	14	45.16
5. Research and development institutions	6	19.35
6. Market research and analysis agencies	4	12.90
7. Distribution and marketing organisations	4	12.90
8. Local government and other institutions	4	12.90
9. University and other schools	3	9.68

Source: Own study, based on questionnaire survey

As far as co-operation with institutions from outside Wielkopolska is concerned, this proved to be less popular than co-operation with institutions from Wielkopolska. The largest percentage of respondents pointed to non-local customers and non-local suppliers as the most frequent co-operation partners (see Table 11). Three companies cited institutions from outside

Wielkopolska which are other than those listed in the questionnaire, but with which they co-operate, namely marketing agencies.

Table 11. Non-local institutions co-operating with the companies under study

Institutions	Number of responses	Percentage of responses
1. Non-local customers	20	64.52
2. Non-local competitors	6	19.35
3. Non-local suppliers	20	64.52
4. Other...	2	6.45

Source: Own study, based on questionnaire survey

In question 13, the authors attempted to establish the significance formal/informal co-operation with the listed institutions from Wielkopolska has/may have for company competitiveness. With this aim in mind, respondents were asked to use a five-step scale, where 0 stood for "no significance", 1 for "minimal significance", 2 – "moderate significance", 3 – "considerable significance", 4 – "very considerable significance". It was found that co-operative relationships are at best of moderate significance for the competitiveness of the companies investigated. In the opinion of the companies surveyed, what is the most important from the viewpoint of competitiveness is co-operation with customers (2.39) and suppliers (2.23). Co-operation with local government and universities/other schools received the lowest marks: 0.71 and 0.81, respectively. Such low assessment of the significance of co-operation for the competitiveness of the companies under study may suggest that co-operation as a competitive game strategy is clearly underestimated. As indicated by interviews with their representatives, the companies surveyed are afraid to enter into co-operative relationships, particularly with competitors, and very frequently do not perceive the benefits accruing from co-operation, especially with rivals. Table 12 shows responses given by the companies under study concerning the significance of co-operation for their competitiveness.

Table 12. Significance of co-operation with selected institutions for the competitiveness of the companies investigated

Institution	Percentage of responses	A	SD
1. Competitors	100	1.45	1.43
2. Industry organisations	100	1.48	1.39
3. Suppliers	100	2.23	1.41
4. Customers	100	2.39	1.56
5. Research and development institutions	100	1.52	1.34
6. Market research and analysis agencies	100	1.29	1.30
7. Distribution and marketing organisations	100	1.03	1.33
8. Local government and other institutions	100	0.71	1.30
9. University and other schools	100	0.81	1.38
A – Average, SD – Standard Deviation			

Source: Own study, based on questionnaire survey

As part of the research conducted, the authors also attempted to determine what are/what can be, in the respondents' opinion, the consequences of co-operation with competitors, suppliers, customers, industry organisations, research and development institutions, market research and analysis agencies, distribution and marketing institutions, local government, and universities and other schools both from Wielkopolska (i.e. local institutions) and from outside the region (see Table 13). The authors set a question about the significance of specific consequences of

co-operation for the competitiveness of the companies surveyed. The assessment was made on a five-step scale, where 0 stood for "no significance", 1 for "minimal significance", 2 – "moderate significance", 3 – "considerable significance", and 4 – "very considerable significance". Practically all the companies under study expressed an opinion on all the consequences listed in the question. The only exception was "strengthening one's position in relation to local/non-local competitors", where not all the respondents presented their opinion – the percentage of responses was 87% and 94%, respectively. Co-operation with local institutions, particularly with local rivals, is perceived first of all as a good method of improving the quality of the products offered or services provided. The significance of the fact for the competitiveness of the companies investigated was assessed as almost "considerable" (2.58). Decreased costs rank second (2.45), and increased product range third (2.38). As for co-operation with institutions from outside Wielkopolska, the issues of the greatest significance for company competitiveness were product improvement and increased product range (2.59), improved position in relation to purchasers ranked second (2.39), while decreased costs ranked third (2.32).

All the listed consequences of co-operation with both local and non-local institutions were seen as issues of moderate significance for the competitiveness of the companies investigated – the significance of the listed consequences of co-operation with both local and non-local institutions was assessed at 2.05 and 2.06, respectively.

In addition to partners and consequences of co-operation, the authors attempted to identify the basic areas where the companies surveyed enter into co-operation (see Table 14). The questions concerned areas of co-operation with local and non-local institutions, and, additionally, the time factor was introduced – the point was to indicate areas of co-operation at present and in the next three years. At present, the largest percentage of the companies under study (approx. 70%) co-operate in the supply of raw materials and components – this refers to co-operation with local and non-local institutions. It is anticipated that in the next three years even more companies will start co-operation in this area. In the second position is supply logistics. At present, co-operation in this field with local institutions is declared by nearly 52% of the respondents, and with institutions from outside Wielkopolska – by almost 55% of those surveyed. The next three years will see increased co-operation in the field, because the intention to start co-operation in supply logistics is declared by over 60% of the respondents. An important place in the list of co-operation areas is occupied by technology development. Within this area, co-operation with both local and non-local institutions is conducted by over 50% of the companies investigated, and within the next three years the number of companies interested in this area of co-operation with local institutions is expected to grow (currently about 52%, in three years' time nearly 55%). Marketing and sales rank third. Co-operation in this area is conducted by 45% of the respondents. The next three years will see a marked increase in the number of companies ready to co-operate in the area of marketing and sales with other local institutions (nearly 55% of the companies investigated).

Table 13. Consequences of entering into co-operation with selected institutions

Consequences of co-operation	LI			NLI		
	Percentage of responses	A	SD	Percentage of responses	A	SD
1. Taking more advantage of market opportunities	100	2.00	1.46	100	2.06	1.41
2. Improved position in relation to local competitors	100	2.16	1.51	94	1.66	1.42
3. Improved position in relation	87	1.78	1.34	100	2.32	1.42

to non-local competitors						
4. Cost reduction	100	2.45	1.21	100	2.26	1.44
5. Improved innovativeness	100	2.13	1.43	100	2.16	1.44
6. Increased product range	100	2.35	1.50	100	2.58	1.57
7. Distribution network development	100	1.77	1.41	100	2.16	1.49
8. Achieving economies of specialisation	100	1.68	1.30	100	1.74	1.32
9. Improved position in relation to suppliers	100	2.13	1.52	100	2.10	1.45
10. Improved position in relation to purchasers	100	2.19	1.64	100	2.39	1.61
11. Achieving economies of scale	100	2.03	1.33	100	2.03	1.28
12. Easy way of obtaining information about the co-operator – former competitor	100	1.84	1.37	100	1.58	1.34
13. Improved product quality	100	2.58	1.41	100	2.58	1.48
14. Improved organisation and management	100	1.94	1.34	100	1.90	1.30
15. Acquiring financial resources	100	2.06	1.59	100	1.84	1.53
16. Opportunity for companies to complement each other's activity	100	1.77	1.33	100	1.65	1.33
17. Other.....................................	-	-	-	-	-	-
LI – Coperation with local institutions, NLI – Cooperation with non-local institutions A – Average, SD – Standard Deviation						

Source: Own study, based on questionnaire survey

Table 14. Areas/forms of co-operation of the companies studied

Area/form of co-operation	Currently – Percentage of responses)		In the next three years – Percentage of responses	
	LI	**NLI**	**LI**	**NLI**
1. Supply of raw materials and components	67.74	70.97	74.19	74.19
2. Supply logistics	51.61	54.84	61.29	64.52
3. Production operations	35.48	35.48	48.39	38.71
4. We commission production under our brand / accept a commission to produce under another company's brand* (*delete as appropriate)	25.81	29.03	25.81	29.03
5. Technology development	51.61	51.61	54.84	51.61
6. Product research and development	38.71	38.71	48.39	48.39
7. Human resources management (e.g. temporary employment, staff leasing, training)	19.35	16.13	32.26	25.81
8. Company infrastructure / Management support systems	19.35	16.13	29.03	22.58
9. Distribution logistics	25.81	29.03	29.03	29.03
10. Marketing and sales	45.16	45.16	54.84	48.39
11. After-sales service	38.71	41.94	48.39	48.39
12. Strategic alliance (to carry out a project, usually without establishing a new company)	22.58	29.03	35.48	45.16
13. Export activity – expansion into foreign markets	29.03	35.48	48.39	51.61
14. Other forms of co-operation………………………	-	-	-	-
LI – Coperation with local institutions, NLI – Cooperation with non-local institutions				

Source: Own study, based on questionnaire survey

5. CONCLUSION

Analysis of information available in the literature on the beginnings of cluster structures in Poland suggests that there are conditions conducive to the implementation of this idea. However, the research conducted to date shows that the idea of clustering needs more promotion in Poland. As for Polish entrepreneurs, the main cause of their limited willingness and readiness to co-operate is cultural and mental barriers. The research conducted by the authors shows that co-operation is on the one hand perceived by the companies investigated as a competitive game strategy within the confines of their industries, but on the other hand, it is clearly underappreciated. The companies under study, as indicated by interviews with their representatives, are afraid to enter into co-operative relationships, especially with competitors, but they also do not see the benefits accruing from co-operation with rivals. Also, the majority of the companies surveyed do not see a connection between locally available resources and their competitive position, indicating that the key reason for their doing business in Wielkopolska is that their families conducted a similar activity in the past (a reason referred to as "family business"). In this context, a very important role seems to be played by social capital and the cultural context, which can support or hinder business entities' endeavours to create cluster structures, which would exploit unique local sources of competitive advantage.

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MARKETING PARADIGMS FOR EMERGING ECONOMIES

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1. ADAPTATION OF ENTERPRISES IN TRANSITION ECONOMIES

Many economies in the Central and East European countries have been going through dramatic changes in the last few years. The changes can be seen in the fundamental reconstruction of the entire economic system, which causes different economic and social consequences.

During the first decade of transition most of the economies were primarily focused on fundamental aspects of economic development, such as creating transparent ownership, open and fair investment mechanisms, the guarantee of rights, opening up cultural doors and establishing political pluralism. Institutions and people are required to adapt and are doing so with mixed results. A group of authors (Hooley et al. 2003) says that transition countries in Central Europe are faced with a high degree of environmental turbulence, which can be seen in widely fluctuating economic growth rates; relatively high (and previously unprecedented) levels of unemployment; and high (treble and double digit) levels of inflation. The enterprises in the region, according to the statements of Hooley et al. (1998) have faced increasingly price sensitive customers demanding better quality products and services.

The change to a free-market economy was a result of political, legal, economic and financial upheavals that have changed the methods of conducting business and need to explore marketing paradigm for emerging economies. According to Springer (1995, p.68) basic changes in the marketing environment can be summarized in:

- The Political Environment including the democratization of society, implementation of a pluralistic party system, freely elected parliaments, and the abolishment of centralist power structures;

- The Legal Environment including juridical and legal reforms, new economic laws based on Western laws, and a change of people within the legal apparatus;

- The Economic Environment including a step-by-step transition to a market economy, privatization, the reformation of the money and banking systems, reform of the price system, a decentralization of economic decision processes and an underdeveloped marketing infrastructure;

- The Cultural Environment including relatively stable cultural values that are facing an increased exposure to an influence from Western culture.

Some transition economies are faring better than others and there seems to be no easy template to follow and thus to assure successful transition. However, evidence suggests some factors be requisite for success.

The extreme uncertainty, produced by the transition process and the accompanying economic turbulence, has left most enterprises without the managerial skills, capabilities and resources to adapt, grow and prosper. Without the development of these resources and capabilities, emerging economies will not fare well. Changes – accompanied by increasing domestic and foreign competition – have forced a wide array of companies and industries to realize that better marketing must become a top priority to enable their adaptability for the future. Acceptance of a marketing philosophy became an imperative for sustainable development of transition or emerging economies.

Forming a new organizational culture as an answer to the challenges from the environment is considered to be a prerequisite for the survival and success of an enterprise in new circumstances. According to Harris (1998, p. 355) "organizational culture is defined as a dynamic set of assumptions, values and artifacts whose shared meaning can be acquired by members of the organization." The new organizational culture, which is considered to be the prerequisite for the development of enterprises in the transition countries, should put the interests of the customers into the center of their attention as key values of the enterprises. The concept where the customer is in the center of interest appears to represent the best answer for adapting to a dynamic environment. This orientation is not a new approach, but increasing amounts of evidence suggest that it may be an important factor in determining the adaptability and effectiveness of enterprises facing significant changes in the environment. A long time ago, in 1954 Peter Drucker already pointed out the necessity of the orientation towards the customers saying that the creation of a satisfied customer was the only valid purpose of business. Customer orientation is one of the bases of market orientation, which has been in the center of many scientists' attention for the last 15 years. Narver and Slater defined market orientation as a form of organizational culture based on customer orientation, competitor orientation, interfunctional coordination, and two criteria of decision making: long-term focus, and profitability (Narver and Slater, 1990). The cultural approach to defining market orientation is present in the later works of those and other authors (Slater and Narver, 1994b; Slater 2001; Harris 1998, Homburg and Pflesser, 2000). Harris defines "market-oriented culture" as "the dominant, dynamic segment of an organization whose orientation, attitudes and actions are geared towards the market" (Harris, 1998, p. 360), and Pulendran, Speed and Widing II (2003) see market orientation as a part of the belief system.

Kohli and Jaworski (1990) see market orientation differently and point out that market orientation is implementation of the marketing concept which includes activities such as dissemination of the intelligence across departments, organization-wide generation of market intelligence pertaining to current and future customer needs, and responsiveness to it.

Furthermore, the same authors state that market orientation based on focusing the customers, the competition and wider market conditions expresses itself through two approaches. Market-driven approach refers to "business orientation that is based on understanding and reacting to the preferences and behaviors of players within a given market structure" (Jaworski, Kohli and Sahay, 2000). Driving markets as a proactive approach "implies influencing the structure of the market and/or the behavior(s) of market players in a direction than enhances competitive position of the business."(Jaworski, Kohli and Sahay, 2000).

On the basis of the attitudes mentioned above we can come to a conclusion that the precondition of market orientation in an enterprise, as well as in the economy in general, is forming of an organizational culture in which the customers' needs and wishes are in the center of attention. Furthermore, it is also necessary to take other market participants into consideration, such as the competition or the suppliers. The organizational culture based on the customers' interests is the ambience in which many different marketing activities take place in order to react appropriately to the customers' demands. In order to achieve a successful business on which the development of the enterprise is based it is necessary to research the market continuously and gather information on the customers' needs, but also about the competitors, the suppliers and the intermediate customers, in order to anticipate the customers' demands, or to meet them, faster and better than the competition.

The western scientists elaborate positive effects, which are the result of a successful implementation of market orientation, in a number of papers. It has been proved that market orientation has a positive effect on the growth and profitability (Jaworski and Kohli, 1993; Slater and Narver, 1995; Baker and Sinkula, 1997; Wood, Bhuian and Kiecker, 2000, Slater and Narver 1994a, Slater and Narver, 2000; Pelham, 1999) or on the innovation (Slater and Narver, 2000; Lukas and Ferrell 2000; Han, Kim and Srivastava 1998; Troy, Szymanski and Varadarajan, 2001). Salomo, Steinhoff and Trommsdorff (2003) proved that customer orientation in innovation projects has a positive influence on new products development success. Matear, Gray and Garrett (2004) discussed the market orientation as a source of advantages on the market for the enterprises in the service sector along with brand investment and innovation, and concluded that "market orientation provides both the climate and the information to enable more effective investment in branding and innovation to occur" (Gray and Garrett 2004, p. 294). Verhees and Meulenberg (2004) proved the positive effect of customer market intelligence to company performance of small firms. A positive connection between market orientation and export was established (Katsikeas, Leonidou and Morgan, 2000), which is especially important for the opening and growing markets. Market orientation results in a better satisfying of the customers' interests, as well as in keeping them (Day 1998), and they contribute to their loyalty (Maydeu-Olivares and Lado 2003).

In order to succeed in turbulent times it is necessary to create an intelligence and knowledge basis on which the key business decisions are to be based, as well as products and services are to be innovated in order to adjust them to the market demands. For instance, Slater and Narver (1994a) say that the connection between market orientation and performance is stronger in conditions of high technological and market turbulence, and Kuivalainen et al. (2004) prove that environmental turbulence is a better indicator of international performance in knowledge-intensive firms.

The question arouses whether forming such an organizational culture, which has its origin in the orientation to the customers' needs and wishes, is an appropriate answer of an enterprise to the changes in the micro and macro environment in emerging markets. Transformation of

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the economy, opening of the market and its including into the globalization process represent huge changes. Is the implementation of knowledge and experience, regarding the market orientation, from the developed market economies in these conditions an appropriate answer to the changes which emerging economies go through is a question which many scientists consider (Martin and Grbac, 2003; Kloudova, Medway and Byrom 2004; Hooley et al., 2003; Bastic, 2004).

We can conclude that for a successful adaptation to the challenges coming from the environment, for the survival and development of an enterprise on the transition markets it is necessary to create such an organizational culture whose basis will be the customers' interests and needs. Taking the theory into consideration, the authors believe that in order to meet the market demands efficiently, it is necessary to focus on the analysis of the market situation through a continuous gathering of quality information about the market participants. Except for that, generating ideas and dissemination of intelligence through the enterprise is also required. In that way the enterprise will be better in meeting the customers' demands. The consequence of these efforts will be their market evaluation through the sales and profit growth, and finally the development of the enterprise and the economy. All this mentioned can be represented in the following model:
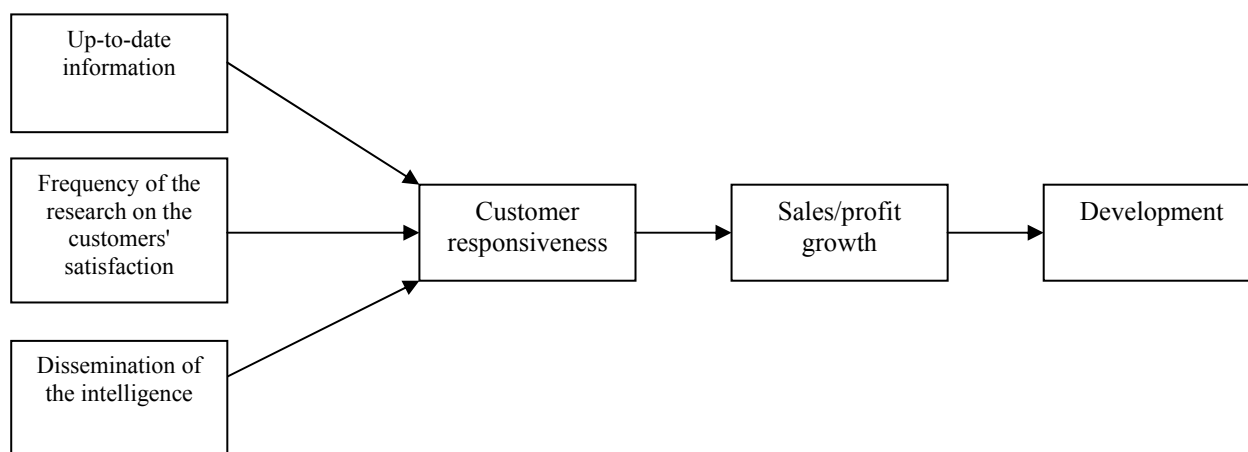
Figure 1.   *The impact of market orientation on enterprise development*

2. THE LEVEL OF MARKET ORIENTATION IN EMERGING ECONOMIES

To test the level of market orientation in emerging economies a longitudinal research was done (in 1997 and 2002) on a representative sample of enterprises. As the representative of emerging economies Croatia was chosen.

2.1. Research methodology and sample

The research was done in two phases in order to establish the progress made by the enterprises in market orientation in the period from 1997 to 2002, as an answer to the turbulent changes in the environment. In the first phase of the research, which was done in 1997, a representative sample of 1000 Croatian enterprises was chosen. The questionnaire

was sent to the addresses of the enterprises' head managers. After phone calls were made in order to remind the enterprises of the questionnaire, it was answered by 326 enterprises, which represents a response rate of 32.6%. The results of the research were published in the works of Grbac and Martin (2001, 2003).

Five years later the second phase of the research was done on the same sample in order to establish and analyze the changes that happened between the two phases of the research. In the second phase of the research the questionnaire was sent to the addresses of those enterprises that reacted positively in the first phase of the research. After a phone call reminder the questionnaire was answered by 112 enterprises, which represents a response rate of 34%. In order to see possible changes, which could have occurred during the 5 years period, only those enterprises identified in both the first and the second phase of the research were included in the further analysis, that is a total of 105 enterprises (32%).

Small, medium-sized and large enterprises took part in the research. Among the enterprises, which took part in both phases of the research and answered the questionnaire, there was 46.2% with less than 100 employees. The average number of employees was 125. There were 20.2% of large enterprises (over 250 employees). The enterprises, which took part in this research, have been participating on the market for a greater number of years, from 9 to 143 years. The average number of years of doing business is around 50 (median = 48, mean = 49.33, mode = 50). According to the business categories the enterprises that deal with the production were the most represented ones (74.8%), 9.7% are in the sales business, 4.9% hotel services, 1.0% financial services and 9.7% other. Out of the total number of the enterprises 25.0% is oriented to the end users' market, 19.0% to the intermediate customers' market and 56.0% supplies both of these markets.

Gathering the information from the market from the aspect of frequency and the kind of information, as well as their dissemination through the enterprise, were included in the subject of the research. Furthermore, a special attention was given to becoming aware of the customer orientation and customer responsiveness as an important part of the organizational culture of the enterprise. Customer responsiveness was measured by using seven 5-point Likert items taking the theory from the papers of several authors (Jaworski and Kohli, 1996, Pelham, 1999; Hooley et al. 2000) into consideration, including statements about gathering the customers' complaints in order to eliminate the problems regarding the products and services, about establishing specific measurable goals of the customers' satisfaction, about using the indicators of customers' satisfaction for managers' performance evaluation, and for the modification of the products or services, about the tendency of the managers to make changes because of the anticipation of the customers' needs, about the quickness of reaction to the change of the customers' needs, and about the decision making on the marketing mix on the basis of the research of customers. Reliability coefficient alpha for this measure is .81.

The obtained indicators were analyzed in correlation with the parameters of the business successfulness as the basis for the development of an enterprise and in that way the economy in general. The success of a business was evaluated by the growth in unit sales for the past three years and average annual growth in profits for the past three years. The intention was to establish the connection between the mentioned indicators with the goal to give a small contribution on defining marketing paradigms for emerging economies.

The above mentioned was tested by formulating the following hypothesis:

H_1: Between the two observed periods Croatian enterprises made a progress in market orientation.
H_2: Those enterprises, which gather a larger number of quality information about the market participants, reach a higher level of customer responsiveness.
H_3: Those enterprises, which gather the information from the market more often, reach a higher level of customer responsiveness.
H_4: Those enterprises, which achieve a higher level of dissemination of the intelligence, reach a higher level of customer responsiveness.
H_{5a}: The enterprises, which achieve a higher level of customer responsiveness, reach a higher percentage of sales growth.
H_{5b}: The enterprises, which achieve a higher level of customer responsiveness, reach a higher level of profit growth.

2.2. Results of the research

In the period between the two researches certain changes in the business activities of the enterprises occurred. In order to discover them there was an open question: "Please list the 3 most important changes that you have made in your business activities in the past 3 years?" In the largest number of cases the enterprises introduced new products and services (33.33%), new technology (31.43%), or gained new markets (18.10%). Yet, in a certain number of enterprises there was a change of the ownership, new forms of cooperation were introduced, but also bankruptcy occurred. (Table 1)

Table 1. Changes in business activities

CHANGES IN BUSINESS ACTIVITIES	FIRMS	%
Bankruptcy	6	5.71
New ownership	7	6.67
New products & services	35	33.33
Lower costs	12	11.43
New technology	33	31.43
Adjusting with new laws	7	6.67
Stronger marketing activities	1	0.95
Employee changes	10	9.52
New suppliers	5	4.76
Own departments getting stronger	20	19.05
New market	19	18.10
New forms of cooperation	5	4.76
Increased production	4	3.81
Total	105	100.00

Source: research results

In order to determine the causes of the changes in the business activities the managers were asked to answer the following question: "What would you say has been the most significant cause of the changes in your business activities?" By analyzing the causes of changes which occurred (Table 2) one can come to the conclusion that the market demands were the main impulse to innovate the products or services (36.19% of the enterprises). Low profit gained on the market was also an impulse to introduce changes in business activities. Yet, one should

keep in mind that the analysis is based on the data given mostly by the enterprises that reacted positively to the impulses from the environment.

Table 2. Cause of changes in business activities

CAUSE OF CHANGES IN BUSINESS ACTIVITIES	FIRMS	%
New ownership	4	3.81
Market demands	38	36.19
Low profit	22	20.95
Law & certificates	3	2.86
Less employees	1	0.95
Reorganization	2	1.90
New business strategy	3	2.86
Other	1	0.95
Total	105	100.00

Source: research results

On the basis of the results gained by the desk research, it was established that it is necessary to gather information about the activities on the market and to answer with creating an appropriate range of products and services for a successful market orientation as an answer to the dramatic changes in the micro and macro environment. The gathering of data about the market participants and the creation of a data basis were researched through a set of questions about the up-to-date information. Among the managers polled in 2002 there was a high level of agreement on the need to keep a data basis about the market participants. About 90% of the enterprises gather a certain kind of data from the market. The largest number of enterprises keeps a data basis about the suppliers (93.3%), whereas 88.6% of the enterprises keep a data basis about the end users. Yet, the information gathered from the market are mostly simpler information, such as contact information or data about the previous supplies. More complex data, such as data on strategies and tactics of the competition or the suppliers, are gathered in a smaller number of cases.

By summarizing the items in each category we got the indicators of gathering the information about the market participants. In order to determine the difference in gathering information from the market in the two periods of the research the paired-sample t test procedure was made. It was established that there is no statistically significant difference between the two periods regarding to the gathering the information about the intermediate customers ($t = 1.074$, $p = 0.285$), final users ($t = 1.118$, $p = 0.266$), the competition ($t = -0.187$, $p = 0.852$) and the suppliers ($t = 0.736$, $p = 0.463$).

There are also no significant changes in the frequency of the gathering the information about the final users ($t = 1.498$, $p = 0.138$), whereas the difference in the frequency of the gathering the information about the intermediate customers is on the verge of statistic significance ($t = 1.877$, $p = 0.064$). The data on customers are usually gathered once a year on the average. Although there is no statistically significant difference in the frequency of the data gathering, one can still notice that compared to 1997 there is a smaller number of enterprises which never gather any data. In 1997, 45.7% of the enterprises said that they did not gather data about the intermediate customers and 44.8% did not gather data about the final users. In 2002 that was lowered to 22.5% of the enterprises which never gather data about the intermediate customers and 26.9% of the enterprises which do not gather data about the final users.

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An important factor of a successful market orientation is the dissemination of the intelligence and interfunctional coordination. Business decisions are made based on the information gathered in many different ways, including the help of the employees and the managers from different functional departments. The research results in 2002 show that before making the key decisions in marketing in the polled enterprises the following groups were asked to express their opinion: those who are directly involved in the making of the decisions (35.6%), the group of managers from different functional departments (39.4%), many persons in the enterprise (8.7%), and in 16.3% of the enterprises only the head manager disposes of the relevant information.

The information about the customers or the competition are differently dispersed in each enterprise. The research results in 2002 show that in more than a half of the enterprises (64.7%) the dissemination of the intelligence is limited. For example, in 51.4% of the enterprises only those directly involved in the process of decision-making got the information, or nobody except for the head manager (13.3%). Other managers who are not directly involved in the process of decision-making got the information in 7.6% of the enterprises, and in 24.8% many persons in the enterprise got the information. By comparing this to the previous period, one can come to the conclusion that there is no significant difference in the dissemination of the intelligence in the enterprises ($t = 0.831$, $p = 0.408$).

Market orientation supposes the creation of such an organizational culture that is based on the customer orientation and a quick reaction to the customers' needs and wishes. By analyzing the obtained indicator of customer responsiveness in 2002 it was established that of the maximum score 35, a mean 25, st. dev. = 5.44 were achieved. In the comparison to 1997 a statistically significant difference in the customer responsiveness ($t = 1.309$, $p = 0.195$) was not established, so we can conclude that in the observed period no significant changes in the organizational culture of the enterprises occurred taking the relationship to the customers into consideration.

Taking the above mentioned into consideration we can point out that the enterprises in the transition period between the two phases of the research did not make a more significant progress in market orientation from the aspect of focusing the market, taking the frequency indicators and the indicators about the way of gathering the information about the market participants, as well as about customer responsiveness, into consideration. All this mentioned denies the hypothesis H_1 that Croatian enterprises made a progress in market orientation between the two observed periods.

The influence of gathering and dissemination of the intelligence on the customer responsiveness was tested by a correlation analysis. A statistically significant relationship between the mentioned variables in 2002 was established. The correlation coefficient between the indicator of gathering up-to-date information and customer responsiveness was $r = .306$, $p < 0.01$, which confirms the hypothesis H_2 that those enterprises, which gather a larger number of information about the market participants, reach a higher level of customer responsiveness.

The hypothesis H_3 was tested by the analysis of variance. The results of this analysis show that there is no statistically significant difference between those enterprises which gather the information from the market more often in relation to those which do it less often ($F = .844$, $p = .475$, $df = 69$ for gathering information about intermediate customers, and $F = 2.842$, $p = .043$, $df = 78$ for researching the final customers). In that way the hypothesis that those enterprises, which gather the information from the market more often, reach a higher level of customer responsiveness, is not confirmed.

The correlation coefficient between the dissemination of the intelligence and customer responsiveness is r = .640, p< 0.01, which confirms the hypothesis H_4 that those enterprises, which achieve a higher level of dissemination of the intelligence, reach a higher level of customer responsiveness.

The presumption is that those enterprises, which in their organizational culture determine the responsibility to the customers as one of the key values, achieve a higher growth in both sales and profit. The research results show that in both of the observed periods the average growth in unit sales of the enterprise was 6 – 10%, and the profit growth 1 – 5%. Although relatively weak, statistically relevant correlation coefficients for 2002 were found between customer responsiveness and growth in unit sales (r = .299, p < 0.01), as well as between customer responsiveness and the profit growth (r = .255, p < 0.01), which confirms the hypotheses H_{5a} and H_{5b}.

On the basis of the research results mentioned we can conclude that during the observed period Croatian enterprises did not make a more significant progress in market orientation. Yet, those enterprises which formed such an organizational culture based on the customer orientation and which carried out the marketing activities such as market research and the dissemination of the intelligence through the enterprise, achieved much better parameters of business success that are the basis for the development of an enterprise and a society.

2.3. Discussion and managerial implications

In order to establish a progress in market orientation in the Croatian economy, as an example of emerging economies, a longitudinal research has been carried out in the period from 1997 till the present moment. The research gave several significant results on basis of which one can get recommendations for the managers of enterprises in emerging economies. Starting point is the presumption that in the conditions of socio-economic changes, which are occurring in emerging economies, market orientation is an efficient answer to the changes in the environment.

The period analyzed represents an advanced phase of transition in which some of the problems from the beginning of the transition are partially solved, for example privatization of state-owned enterprises or founding of a greater number of small and medium-sized enterprises in private ownership. During the five years of the research Croatian enterprises went through certain changes. Some of them introduced new products, services, technologies or gained new markets, and the basic impulse was the market demands, whereas some enterprises went through the change of the ownership or even bankruptcy. We must ask the following question: What makes these two groups of enterprises different? Is the success of the first group and the failure of the second group of enterprises the consequence of changes in the organizational culture, which in new conditions is based on new values – market demands? The authors present arguments for a positive answer. The research results prove that in most of the enterprises during the transitional period there was no significant progress in market orientation. Yet, those enterprises, which formed their organizational culture on the key values – the customers and their demands –, made a bigger success. In those enterprises many marketing activities are carried out, such as market research, dissemination of the intelligence, generating ideas and appropriate response to the customers' demands. Furthermore, those enterprises which gathered more quality information about the market participants and included managers and other employees in all functional departments into

generating the ideas and dissemination of the intelligence reached a higher level of customer responsiveness. Market acceptance that followed soon after resulted in the sales and profit growth. The consequence of the successfully carried out marketing activities is the development of the enterprise on the micro level, which then influences also the economic development on the macro level.

On the basis of the above mentioned results of the research it can be recommended to the owners and managers of the enterprises in emerging economies that forming of an organizational culture which puts the customers' demands into the center of their attention is a precondition for the survival and development of the enterprises in turbulent conditions which appear in emerging economies. Recognition and implementation of knowledge and techniques, which enterprises have been implementing for decades in their business in the developed market economies, can be an answer to the challenges coming from the environment.

The results of the research show that it is necessary to take certain measures on the macro level as well in order to achieve the economic growth, competitiveness and development. They should be oriented towards the creating of such a system that will secure a continuous transfer of knowledge that is becoming the most important resource of an enterprise and the economy in general. The prerequisite for the transfer of knowledge is development and implementation of new technologies and infrastructure in order to enable the sharing of knowledge. Managing the knowledge demands the development of the system that will enable the continuous flow of information about the trends in the national, regional and even wider environment. By creating a unique data basis about the participants and the situation on the national and international market an easier making of business decisions and success in their realization would be enabled.

3. CONCLUSION

Economies of many countries are faced with dramatic changes that occur in their environment. Opening of the markets, privatization, new rules of market behavior and constantly higher customers' demands are phenomena that the emerging economies face. The results of the research show that forming a new organizational culture is the imperative for the development of the enterprises and the economy in the emerging economies. A new organizational culture has its starting point in taking the market demands and customers' behavior into consideration that involves managing the knowledge about the market and marketing. Regarding the above mentioned the authors came to the conclusion that it is necessary to carry out more activities by which the market dynamics is recognized. It is especially necessary to point out the creating of conditions for recognizing and reacting to fast and unexpected changes. It is also concluded that it is necessary to encourage the improving of knowledge and skills by political measures on the macro level, and to enable the transfer of knowledge by creating the national system for the exchange of information. Multiplication of positive results will be seen in a faster economic and social development. In the newly created conditions the acceptance of a new paradigm based on new organizational culture is considered to be the precondition for the survival and sustainable development.

Yet, the key factor of development is the human being. That is why it is necessary, on both the micro and macro level, to encourage permanent studying about new technologies, but as well about management skills, including the knowledge about the marketing management.

Furthermore, it is necessary to encourage one's own research and development, creativity, inventiveness, entrepreneurship, self-education, life-long education and professional development. The result of the mentioned measures will be faster economic growth, higher standard of living and the development of the society in general.

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TECHNOLOGY AUDIT MODEL (TAM) AND THE IMPACT OF TECHNOLOGY ON COMPANIES AND SOCIETY

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1. INTRODUCTION

Technology can be defined as: theoretical and practical knowledge and skills which can be used for development of products or services, their productive and providing systems, and which can be incorporated in processes, materials, equipment, and systems employed in the creation of goods or in providing services. In other words, technology can be defined as 'the way we do things' and it consists of the means by which we achieve objectives (Khalil 2000). Therefore management of technology (MOT) can address the strategic and operational needs of the management in the following ways by:

- Integrating business and technology strategies.
- Expanding utilisation of quality standards, excellence models and TQM philosophy into the field of MOT.
- Integrating the technology audit model into generic internal auditing practice of the company.
- Gaining support and benefits from the internal technology audit (Khalil 2000, Karapetrovic 2000, 2002).

Manager's challenge is to continuously and consciously manage their knowledge assets for the growth of technological capabilities of the company (Leonard 1998). In regard of that, the technology audit is defined as a tool to evaluate and identify the strengths and weaknesses of the technological capabilities of the company. The TAM (Technology audit model) is supportive in the sense of determining current technological status, surviving areas of opportunity, and taking advantage of the company's strongest capabilities (Khalil 2000). One

of the main goals is also to establish the technological position of the company in regard to its competitors and the state of the art. After the audit and assessment a company can develop objectives that form the core of its strategy (Khalil 2000). Technology strategy should be a part of the company's overall strategy.

Business companies while implementing the system of quality management are regularly practising quality audits. However, there are no standard requirements about evaluating technological capabilities like quality audits, that are one of the integral requirements of the ISO 9000 series. One of the important areas of a company's generic audit should be an evaluation of their technological capabilities by an internal technology audit. We can assume that many companies are developing 'their own' TAM model through preparation of audit, accomplishment of audit and audit report with recommendations and corrective measures.

The pilot TAM test was performed for the Slovenian service and manufacturing companies. The methodology approach was a half-structured interview which consisted of a TAM evaluation form and open questions. Interviewees were responding to the evaluation form, which consists of twenty assessment areas and a five-point Likart scale. They were also answering the open questions and presenting their comments as well. The results on a five-point Likart scale agive an average for most categories. Companies from both industries are evaluated as relatively equal but with some advantage for the manufacturing industry. From the results it is evident that further improvements are needed, above all in the categories of innovation processes, markets and competitors. Qualitative analysis indicates the general applicability of the TAM model in both industries and a new viewpoint for some interviewees and users.

2. LITERATURE REVIEW

Globalization is already affecting the international business environment. It appears that the science and technology of the developed Western countries, and Japan in the East, dominates and controls the whole world. The majority of technologically based products, labeled with Western and Japanese brands, sell all over the world. However, countries that are expected to have more influence in the world are not Western but from China (Li-Hua 2006) and SE Asia. In the Europe Manufuture initiative started with its first conference in 2003. The declared mission of the technology platform in future manufacturing is 'To propose a strategy based on research and innovation, capable of speeding up the rate of industrial transformation in Europe, securing high added value employment and winning a major share of the world manufacturing output in the future knowledge-driven economy' (Manufuture 2006). The Slovenian Manufture was set up in 2004 with its first four technological platforms (Bešter et.al 2004). In the following years other technological platforms were established. Without doubt, an effective MOT is one of the vital sources of a competitive advantage for many companies in many countries.

The notion of MOT is continually evolving. MOT is characterized as a unique combination of many constituent elements that links engineering, science and business management and emphasizes the multi-disciplinary nature of the field (Van Wyk 2004b). According to the US National Research Council (NRC), the MOT knowledge can make important contributions to industry, such as:

- Integration of technology into strategic objectives of the company.
- Efficient evaluation of the technology.
- Accomplishment of the technology transfer and new product development time.
- Management of interdisciplinary systems and internal use of technology (Li-Hua 2006).

With the increasing complexity of the business environment, MOT focuses more and more on managing the processes and employees who are involved with them (Thamhain 2005). A framework (model) of the technology management activities consists of identification, selection, acquisition, exploitation and protection. On that basis, a technology management assessment procedure has been developed. The main benefit of the Gregory's five process technology management model is in providing a conceptual framework that can be used to amalgamate all activities of the MOT and enable an assessment and management of this important area (Phaal 2001).

The key factor of company competitiveness is the successful acquisition of technology and MOT in order to enable R&D and manufacturing of the innovative products. An integrated road-mapping methodology provides an opportunity for objective selection and assessment of a portfolio of technology projects. The main aims of technology road-mapping are the following: identification of gaps, defining priorities, creating plans of action and communication across the company. Technology road-mapping is a management tool for improving strategic technology planning processes by linking the acquisition of technology to strategic objectives, but at the same time it is not integrated into company's business processes (Nabil 2006). The process of decision through which acquisition of the technologies is accomplished can significantly impact on a company's capabilities and performance (Baines 2004).

Another approach is auditing practice that is mostly bound to the quality audits, which are an independent and objective collection of evidence against the audit criteria. Within the system approach, like standard ISO 9001, an audit is a set of interdependent activities using human, financial, information, technological, and technical resources. Audit systems can make use of generic management guidelines, such as the ISO 9000 series of the quality management system standards. Its effectiveness is modeled using the concepts of reliability, availability and suitability (Karapetrovic 2000a). Quality audits are one of the integral requirements of the ISO 9000 series. In the case of quality audits, the theory and practice of management systems must be of real value as well (Rajendran 2005). Auditors, while practising audits, met weak or non-existing linkages with business planning, narrow focus on quality assurance, inability to measure efficiency and lack of motivation. For that reason further improvement in efficiency of the methodology is required. One of the areas where quality audits are lacking is performance improvement. The study by Karapetrovic and Willborn shows that, although they cannot replace quality audits, self-assessments have gained excellence in performance improvement. A self-assessment is less formal and more independent than the former. As both are an evaluation of the processes, they need some coordination (Karapetrovic 2002a).

Karapetrovic (2002a) exposed difficulties in conducting audits, e.g. high cost of multiple audits and inadequacies of audit methodologies to direct the improvement and evaluate the system efficiency. As a solution to these obstacles he has suggested the integration of management and audit systems. When audits are used primarily for management control, it is likely that they are bound to cause dissatisfaction between employees and to result in failure. In such cases, the management gets what they want to hear. Quality audits should be

encouraged to promote efficiency and economically favorable results. The main goal of the audit must be improvement and the consecutive continuous process of improvement can correct most of the quality problems (Szakonyi et al. 1999).

With the growth of global competition, management systems are becoming more complex and diverse. Management systems audits seem to be following the same path (Karapetrovic 2000b). The creation of the ISO 19011 guideline for quality and environmental auditing supports compatibility of the existing safety, environmental, dependability, quality and financial audits. The main goal of these integration efforts is to achieve 'one system and one standard' (Karapetrovic 2002b). According to Karapetrovic and Willborn, further research is suggested not only in quality auditing and self-audit concept, but also in other areas of auditing practice e.g. health and safety, environmental, maintenance, financial, etc. (Karapetrovic 2002a). In regard of that we can append to the areas of auditing practice, a technology audit as well. Khalil (2000) lists several issues which were identified and recommended to the National Science Foundation of America (NSFA). The five enabler categories could be used for efficient utilization of technological resources, and the following areas are considered critical for the company's competitiveness:

- Methods of performance assessment.
- Measurements of technology performance.
- Measurements of benefits from R&D activities.
- New tools for optimizing decisions.
- Alliances as alternatives to rivalry.

Under the methods of performance assessment it is stated that traditional performance audits are biased against technological innovation. More holistic methodology is needed in order to integrate all the factors driving the company. There are several principles that can help management to deal with the MOT paradigm (Khalil 2000):

- Value creation.
- Integration, quality and innovation.
- Responsiveness and agility.
- Teaming and fairness.

Value-creating activities for society are the basis of social responsibility of the company. The key to the long-term survival of the company lies in its products, services or processes nature. That means how they add value for the customer and how that value can be increased. After the audit and assessment a company can develop the core of its strategy. It should then select an optimal strategy for the acquiring and exploiting technology. To achieve a sustainable competitive advantage in managing technologies an appropriate organizational structure and processes are also needed (Khalil 2000). In spite of classified technologies and technological intensities proposed by Babcock (1991), Khalil (2000) and Narayanan (2001), there is no generally accepted criterion for the level of technology, e.g. retailing vs. pharmaceutical company. 'The challenge is to classify the technological intensity of a business operation (Thamhain 2005)'.

3. IMPACT OF TECHNOLOGY ON COMPANIES AND SOCIETY

The global and local impact of technology on the industry, companies, and society cannot be questioned any longer. Technology has been identified as a key source of competitive advantage (Khalil 2000). According to Porter is one of the five forces that drive industry competition (Porter 1998). The impact of technology as a competitive advantage for industries is widely accepted by governments, professionals and academics. As the pace of technology development increase it is of vital importance to understand technologies and the best ways for managing them (Phaal 2001). Technological management requires competencies in a wide spectrum of managerial functions from R&D to marketing, manufacturing, finance and others. Technological management aims at mastering effects of technology on business. It deals with stockholders, accountants and finance experts and concerns high and low-tech business where new technologies might have a significant impact. Managers, practitioners and academia should be educated and trained to understand and evaluate the co-evolution of technology and management (Chanaron 1999).

Implementations of technology have influence on occupational and professional grouping of people, their organizational and spatial location, and relationship to members of other groups within the organization and beyond. When new technology enters the companies bring uncertainties and unpredictable problems for buyers and users. Achieving the company's certainty goes hand in hand with achieving the technological certainty. Top managers who are responsible for that king of 'disturbance' can reduce uncertainty and re-establish sense of managing the company (McLaughlin et al 1999).

Capabilities and competencies may vary according to the company goals but they are always based on knowledge and human resources. Knowledge consists of explicit and tacit part and the distinction between them is important. When capabilities and competencies of the company are based on tacit knowledge they are difficult to imitate (Yiannis 2004). Companies compete for talent because, today, human capital drives business and has become a rare resource (Aldisert 2002).

4. THE TAM MODEL AND AUDIT REPORT

The technology audit model that includes important areas to be considered in a technology audit was developed by Garcia-Areola in 1996 (Khalil 2000). Technology audit performed with the TAM model is based on the following categories:

1. Corporate environment (Areas; senior executive leadership and orientation, technology strategy, organization structure, technology culture advancement and people).
2. Technologies categorization (Areas; service/products technologies, back office/process technologies and technology in marketing).
3. Markets and competitors (Areas; market needs and competitors status).
4. Innovation process (Areas; idea generation, technology generators and from concept to market).
5. Value-added functions (Areas; R&D, operations and environment conscious technology).
6. Acquisition and exploitation of technology (Areas; acquisition of technologies, transfer of technology, exploitation for profit and protection) (Khalil 2000).

The internal audit is in general intended for evaluation, determination, and providing a position statement of the existing status in a company. Evaluation, gained through the internal technology audit, can be used for encouragement of technological development in the company. The internal technology audit is a tool for a gap determination between the existing and wanted technological situation and, respectively, offers an evaluation about possibilies for upgrading technological capabilities.

The main reasons for the internal technology audit accomplishment are:

- Positioning of the technological development.
- Estimation of probabilities for change of the existing status.

4.1. TAM test in Slovenian companies

The TAM model was tested, for purposes of the internal technology audit, in more than twenty Slovenian service and manufacturing companies. The majority of these already have implemented quality system management and are certified according to the requirements of at least one of the following standards: ISO 9001, ISO 14001, ISO/IEC 17025, ISO TS 16949, QS 9000, etc. The methodology approach was a half-structured interview which consisted of a TAM evaluation form and open questions. Interviewees were responding to the quantitative evaluation form, which consists of twenty assessment areas and a five-point Likart scale. A score of 5 is outstanding, 4 is good, 3 is average, 2 is below average and 1 is poor (Khalil 2000). They also responded to the open questions and presenting their comments as well. Results from the TAM evaluation form are presented in the table below.

Table 2. TAM evaluation results for Slovenian service and manufacturing companies.

Technology Audit Model categories	Service companies	Manufacturing companies
	Evaluation average	**Evaluation average**
1. Technological environment.	3,41	4
2. Technologies categorization.	3,31	3,97
3. Markets and competitors.	3,15	3,77
4. Innovation process.	2,88	3,68
5. Value/added functions.	3,43	4,02
6. Acquisition and exploitation of technology	3,18	3,82
Overall average	3,22	3,87

Conclusions on the basis of the TAM evaluation results

1. Technological environment:

Service companies: Service companies have been evaluated by the average in technological environment which consists of the senior executive leadership and orientation, technology strategy, organizational structure, technology culture and employees as a company's most important assets. There is, however, still room for improvement in merging company's strategy with technological strategy, teamwork and reorganizations. That could mean changing the technological culture and treatment of people in the company, because the technological improvement could be based on the values and needs of all employees.

Manufacturing companies: Manufacturing companies had been scored as good in this category. The key strategic technologies for development and diminution of business threats are identified, organization structures are manufacturing oriented, critical number of high-

skilled employees is maintained and reward system is reestablished. All these encouraging facts are a good basis for achieving business excellence.

2. Technologies categorization:
Service companies: Company's level of existing technologies, identification of external and basic technologies and technology trends were scored as average. More knowledge and awareness about one's own technologies and monitoring of important potentially competitive technologies is needed.
Manufacturing companies: Technologies categorization was evaluated with average for manufacturing companies. They have been investing in technologies for computer aided rapid product development, modeling, prototyping and manufacturing, and are expecting benefits from their investments. Some of them had received EU funds for the investments in education and qualification of employees.

3. Markets and competitors:
Service companies: A more profound understanding of market needs with, in time, inclusion of market trends in the overall strategy, assessment and benchmarking of competitor's status, could be the answer to the lowest average evaluation between all categories for the service companies. Also a periodic benchmarking of the best internal and external practices is an issue for further improvement.
Manufacturing companies: Average evaluation is higher for manufacturing companies, but there still remains room for improvement in productivity and the value added chain. Some good results are evident in a quality-price relation and flexibility, responsiveness and development support for customers. In spite of that, foreign rivalry companies still have the advantage with their economy of scale.

4. Innovation process:
Service companies: Innovation process is a category scored with below average. The challenge in this category is an awareness of one of the most important issues; to encourage all employees to offer suggestions of new ideas in services or processes. Reward systems should be reestablished to financially motivate innovations within the whole company. This lowest score among all categories could be the consequence of the stated facts from the first three categories.
Manufacturing companies: Innovation process is evaluated as average but still remains the lowest average between all evaluated categories. Employees should be encouraged and rewarded to suggest new ideas for products or processes. More knowledge about market needs among employees is suggested.

5. Value/added functions:
Service companies: Cross-functional teams, projects portfolio and measures of all important variables of the processes and technologies in harmony with the environment are the areas for further improvement. In this category service companies have reached the highest average score among all six categories. From the score of this category we could assume that they are on a good path to further improvement.
Manufacturing companies: Research and development is the key factor for planning and realizing strategic goals of the companies. With a proactive, preventive and systematic approach it is noticeable that, harmonization with the environment has been increasing and process effectiveness had significantly improved. This category has the highest good score and indicates potential for achievement of the business excellence for manufacturing companies.

6. Acquisition and exploitation of technology:

Service companies: Effective adoption of technology is dependent on the process of implementation which is the opportunity for improvement in this category, evaluated as average. This requires more systematic, process oriented transfer of the adopted technology and knowledge flow from vendors to the buyers and users of technology.

Manufacturing companies: The average score in this category indicates the need for further improvement for an investment in technologies, development of global network, innovative manufacturing and protection of knowledge by patenting. Transfers of the new technologies and people are also an area to be given a greater significance in this category.

The internal TAM model test evaluation in Slovenian service and manufacturing companies has given the first overview of their technological capabilities. From the mostly average results, recommendations and propositions, one can recognize the increasing awareness of how important a part of the company's assets are the technological capabilities. With a good score are evaluated categories such as technological environment and value-added functions for the manufacturing companies, while there was no good evaluation for categories of the service companies. In all categories manufacturing companies have reached somewhat better scores than the service companies. This could be the consequence of the fact that technologies are more important to the manufacturing than to the service companies. Because of the latter's outlook, technology is regarded as being more in the context of industrial engineering than as an asset. There are also some lower results in innovation process, but from the recommendations and proposals for corrective measures below, it is evident that encouraging employees for innovations and rewarding systems are among the most important issues to the interviewees.

4.2. Recommendations and corrective measures propositions for management

From the comments of interviewees it is evident that they mostly have fear of the global impact. To avoid the negative global impact, like remission of employees and migration of the industry to markets with cheaper work force, the implementation of innovative, value added products, and effective knowledge management is necessary. Environment preserving is also a very important issue to the interviewees.

In the following issues, recommendations and corrective measures propositions for the management of service and manufacturing companies are presented.
In the service companies the following issues were identified:

- Merging the company's strategy with technological strategy.
- Implementation of new technologies, spreading of best practice and inclusion of the company in the technological platform e.g. Manufuture (SI),
- Better communication with top management, information accessibility on the intranet, and empowerment.
- Innovation, team work encouragement for all employees and education for managerial technology competences.
- Financial evaluation of innovation processes, more effective CRM, better IT supported processes and IT security.
- Continuous monitoring of competitors and new technologies.
- Reorganizations improvement.

In the manufacturing companies identified issues were:

- Merging the company's overall strategy with technological strategy.
- Analysis of products, modernization of manufacturing lines and reestablishment of R&D department.
- Supply of quality materials, development of key suppliers, JIT production and fast reclamation solving.
- Material and non material motivation of employees, innovation and team work encouragement for all employees, education, wider informative meetings and employment of experts with fresh ideas.
- Continuous monitoring of competitors especially from Asia.
- Periodically repeated internal technology audit, continuous improvement of technologies and measurement of their effectiveness.

The most important issue that emerged from the TAM test evaluation was '… merging the company's overall strategy with technological strategy …' that leads us to Chanaron's (1999) paper in which he discusses Technological management. Technological management requires competencies in a wide spectrum of managerial functions and demands understanding and control of the impact of technology on all management functions. Managers, practitioners and academia should be educated and trained to understand and evaluate the co-evolution of technology and management (Chanaron 1999). From the issues presented above one can recognize forces that drive technology management today e.g. fully utilizing Information Technology or enterprise–wide Project Management (Thamhain 2005) and new paradigms (drivers) of business as they were presented by Khalil (2000). The study of Karapetrovic and Willborn shows that quality audits are lacking in performance improvement where self-assessments have gained excellence (Karapetrovic 2002a). With integration of the TAM in the Integrated Management System (IMS) the '… periodically repeated internal technology audit, continuous improvement of technologies and measurement of their effectiveness …' could be efficiently implemented. According to the interviewees the last, but not least issue implicates the recognized necessity of the internal technology audit. This should be, according to Khalil (2000), a continuous process of assessment.

The main benefits of the TAM test evaluation were:

- Arrangement and review of existing relevant documentation of the quality system management and supportive key technologies.
- Identification of the technological assets and capabilities of the company.
- Determination of the key company competencies for strategy review and change support.
- Technology mapping support and portfolio of technology development projects.

Companies, while implementing the system of quality management, often need to evaluate and improve their technological capabilities. The TAM model is an evaluation tool of efficiency of the implemented technologies. In this role, it can be an excellent complement to the requirements of the standard ISO 9001 and EFQM model as well. Integration is possible as implementation of technology audit in the regular internal audits or self - assessments. The technology audit gains meaning in the processes in which key capabilities are based on the technology. Because there are no standard requirements for evaluating technological capabilities, like e.g. ISO 9001:2000 or EFQM, the technology audit is often based on experiences from quality audits.

Slovenian companies for the purpose of internal technology audit engage experienced auditors who are trained for different types of evaluations, like internal and external ISO 9001, ISO 14001, HACCP, EFQM, etc. audits. In that quantity of audit areas a place for the technology audit is needed. We can see the analogy between audits of the systems of quality management and audits of the technology capabilities. Only when practicing both types of audits can we become aware of the similarities and dissimilarities between them and also of the need for their integration in one system. We can assume that many companies are developing 'their own' TAM model through preparation of audit, accomplishment of audit and audit report with recommendations and corrective measures. Some companies have already included the TAM evaluation practice in their generic audit system.

5. CONCLUSION

The audit system is accepted as an integrated part of the management system based on TQM. Through the years of implementation and development of quality system management, many companies have stated that one generic audit consisting of different audit areas is a rational solution. Particularly in the area of technology management a lack of performance improvement was noted. For that reason, a more holistic approach is the challenge to support the implementation of the Integrated Management System (IMS) in order to encourage technological innovation, productivity, nourishment of common values, environment preserving and the commitment to excellence approach. As we can see from the results above and from the literature review, if the companies wish to remain competitive in this globally strengthening world, and to improve their management system, they must increase awareness and exploitation of their technological capabilities. The TAM model could offer a basis for application and support of improvements in that area. It is a model which is relatively easy to integrate into the management system because of its complementing nature. Pilot TAM model testing was performed in more than twenty Slovenian companies. The results lead us to a conclusion on the overall average of existing status, which is somewhat better for the manufacturing companies. Qualitative analysis indicates the general applicability of the TAM model in both industries and a new viewpoint for some users. On that basis we are further testing and developing the applicability and supportability of the TAM model in relation to the technological capabilities of Slovenian companies.

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INFLUENCE OF THE MANAGEMENT FUNCTIONS DEVELOPMENT ON BUSINESS PERFORMANCE OF SMALL ENTERPRISES

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1. INTRODUCTION

In Bosnia and Herzegovina, as a consequence of dissolution of former Yugoslavia, the war in BH, as well in the region, post war crisis, transition, badly implemented and unfinished privatization, globalization, increased competition and due to many other reasons has come to a large decline in production, employment and failure of a large number of enterprises.

Adjustment to market principles of business operation of the world economy, becoming more and more globalized, has caused growing unemployment and loss of numerous workplaces in transitional countries.

Eentrepreneurship and sector of small and medium enterprises (SMEs sector) have been developed in such turbulent, politically and economically pronouncedly dramatic conditions contributing more and more to changes in economic structure and generating new employment.
A trend in relation to which SMEs are growing faster in advanced market economies than large ones has implied an expectation according to which small and medium enterprises in transitional economies and then in BH, as the sector of large enterprises would be faster privatized and restructured, shall extend and grow as to absorb surpluses from the labor market.

A large number of small and medium enterprises have been developed upon implemented privatization (which has not been entirely completed) and liberalization of institutional framework for foreign investments and especially for development of private entrepreneurship, and this process, which is spreading out in majority of transitional countries, as well as in BH, has played and is playing a role of shock absorber and alleviates a drastic decline of unemployment.

Employment growth in the SMEs sector of countries candidates for EU accession (which is larger on the average about 3,5 times annually over a period from 1995 to 1999 than the one achieved in the western economies) illustrates a contribution of SMEs, both to alleviation of

unemployment implied especially by a loss of work places in large enterprises, and to development of employment as a whole.[1]

Small and medium enterprises are agents of a permanent innovation through entrepreneurship which renews, transforms and stimulates development of economies worldwide, and recently also the BH economy.
Dynamism of entrepreneurship is such that a large number of business undertakings are born every hour from day to day all over the world, and according to available data[2] every workday in each hour more than 1000 new business undertakings are born in the USA.

In developed market economies, a relative market share of small enterprises is growing constantly by comparison with a total number of enterprises. The illustration of a significance of small enterprises in the European economy is enabling a figure of more than 19 million of small enterprises (98,8% of total number of business subjects), out of which 17,8 million (92,3%) are micro sized.[3] Similar figures are also in the neighboring Republic of Croatia, and such large number of enterprises provide work for a large number of employees too, thus, according to data in the Republic of Croatia, 65,70% are employed with small and medium enterprises while 34,30% of employees are employed with large enterprises.[4]

Small enterprises represent a backbone of each economy, they are main promoter of innovations, employment, adaptability and competitiveness, as well as social and local integration in Europe.

However, small enterprises despite a great dynamics they are developing, great significance they have for development of a society, and ever more concern of that society for development and subsistence of small enterprises, many of those small enterprises are discontinuing to exist or operate. According to rough estimates done in the USA[5] in the sixties of the last century only a half of them endures 18 months, and only a fifth part endures ten years. In recent times figures are somehow better, which is a result of comprehended importance of development of small enterprises for development of economy and society in general, and increased care and attention being consequently focused on small enterprises. By analyzing a life expectancy of newly founded enterprises it has been shown that on the average out of all enterprises being appeared (founded) 87% are surviving their first year, 68% are surviving at least three years, and 55% are reaching five years of business operation.[6]

Data about a large number of small enterprises which are failing, have prompted also numerous researches by reason of which small enterprises are failing in such large number. Dun & Bradstreet found in their research[7], by keeping updated figures of about more than 9 million of the American enterprises, that causes of failing of small enterprises are the same year after year, and they are shown in Table 1.

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[1] Buble, M., Kružić., D.: Poduzetništvo, RRiF d.o.o. Zagreb, Zagreb 2006, pp. 167.
[2] Bygrave,W. Zacharakis D.A.: Portable MBA in Entrepreneurship, Third edition, John Wiley&Sons, Inc., 2003., pp. 2.
[3] SMEs in Europe 2003, Observatory of European SMEs 2003, No.7, Luxembourg, 2004., pp.26. and pp.33.
[4] Prga,I., Šverko,I.: Prospects of SME s financing in the Republic of Croatia, International Conference Entrepreneurship and Macroeconomic Management, april. 28 – 30. 2005. Pula, Croatia, vol.2, pp. 598
[5] Siropolis, N.C.: Menedžment malog poduzeća: vodič u poduzetništvo, Mate, Hrvatska obrtnička komora, Zagreb, 1995, pp. 16.
[6] Buble, M.: Management maloga poduzeća I dio, Ekonomski fakultet Split, Split 2003. god., pp. 31.
[7] Siropolis, N.C.: Menedžment malog poduzeća: vodič u poduzetništvo, op.cit. pp. 17.

As it can be seen in Table 1, the fundamental causes of failure of small enterprises are in management mistakes. Entrepreneurship undertakings are, due to ease of entering into entrepreneurship, often started by individuals who are lacking necessary managerial abilities, or those who do not have almost any experience in that job. When entrepreneurs initiating entrepreneurship undertaking have also some experience in some business, individuals are lacking very often managerial knowledge and experience and if they have it then it is very frequently inappropriate, accomplished in only one scope of activity or in one or several managerial functions, and is not complete. This is to say that managers of those enterprises are lacking elementary knowledge from planning, organizing, human resources management, leading and controlling, and it is especially pronounced when a small enterprise becomes to grow and increase number of employees and turnover in the course of time.

In contrast to them, managers of companies appearing as competitors to them at the increasingly global market and in international competition are professional managers disposing of managerial knowledge and skills.

Table 1. Causes of failure of enterprises.

Percentage of failure of enterprises	Cause of failure	Explanation
44%	Incompetence	Inefficiency of leading an enterprise – psychic, moral or intellectual
17%	Lack of managerial experience	Little or none experience in management of employees and other resources before starting up an enterprise
16%	Uneven experience	Insufficient knowledge of marketing, finance, procurement and production
15%	Inexperience in profession	Little or none experience in product or service before starting up an enterprise
1%	Negligence	Insufficient devoting attention to enterprise as a result of bad habits, poor health or marital troubles
1%	Fraud or accident	Fraud: fraudulent name, forged financial statement, intentional excessive purchase or irregular disposal of assets. Accident: fire, flood, burglary, fraud by an employee or strike (it could be provided for some accidents with the assistance of insurance)
6%	Unknown	

Source: The first two columns are from The Business Failure Record (New York: Dun % Bradstreet

Corporation, Economic Analysis Department) pp.12., taken from Siropolis, N.C.: op.cit. pp. 18.

2. RESEARCH METHODOLOGY

2.1. Establishment of hypothesis and identification and operationalization of variables

The fundamental causes of failure of small enterprises are in mistakes of management. Entrepreneurs are very often incompetent for business management of enterprise, lacking of managerial knowledge and experience in business management, and if they have it then it is incomplete and very frequently from one or several areas. Entrepreneurs and managers are lacking of knowledge from planning, organizing, human resources management, leading and

controlling, i.e. from management functions. The mentioned problem has set out a goal of this research as to come to cognition to which extent some management functions are developed in small enterprises in the Federation of Bosnia and Herzegovina, as well as does the development those functions influence and to which extent on business performances of small enterprises.

The defined problem and goal set out for this research have determined also contents of a hypothesis that reads as follows: „Development of management functions influences on business performances of small enterprises".

As to check the correctness of the set out hypothesis there have been identified dependent and independent variable as well as it has been performed their operationalization with key indicators.

1. Dependent variable –business performances of enterprise, with indicators Return on Assets, Return on Equity Capital and Profit Margin.
2. Independent variable – development of management functions with indicators: planning, organizing, human resources management, leading and controlling.

2.2. Scope of research and methods of data collection

This research encompasses small enterprises (micro and small subjects of small economy), in accord with a definition determined by the Federal Law on Stimulation of Small Economy Development and which was passed in the first half of 2006[8] according to which the small economy is made of subjects of small economy, natural and legal persons performing permanently activities allowed by the law for income generation or profit earning, including self-employment and family businesses linked to trades and crafts and other activities, registered before the competent body, disregarding a form of organization. Micro subjects of small economy are natural and legal persons employing annually less than 10 persons on the average and which annual turnover and/or annual statement of accounts does not exceed 400.000 KM, and small subjects of small economy are natural and legal persons employing annually less than 50 persons on the average and which annual turnover and/or annual statement of accounts does not exceed four million KM.

The research, considering area of coverage has been carried out in the Herzegovina- Neretva Canton and in terms of time in the second half of 2006.

For implementation of the research, a questionnaire has been prepared consisting of three parts. The first part of questionnaire contains general questions about an enterprise, in the second questions about development of management functions and the third data from official financial statements of enterprises prepared for 2005 (statement of accounts and profit-and-loss statement), from which indicators of business performances of enterprises have been calculated.

2.3. Model of data processing and determination of interdependency of variables

By operationalization of independent variable, management functions development in small enterprises has been determined by indicators planning, organizing, human resources management, leading and controlling.

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[8] Zakon o poticanju razvoja malog gospodarstva, Službene novine Federacije BiH, br. 19/06

For each of those indicators the questionnaire put several questions and 5 questions for planning, 4 for organizing, 5 for HRM, 4 for leading and 5 questions for controlling, to which entrepreneurs and managers replied to by evaluating them from 1 to 5 (Lykert scale type). Evaluation of development of each of management functions has been produced by calculation of arithmetic mean, and evaluation of management development by calculation of arithmetic mean of evaluations of development of all indicators i.e. functions.

Achieved results have been assigned to systems that have been defined for this research namely from 1 to 4. System 1 is when evaluation of development is ranging from 1 to 1,99, System 2 when evaluation is ranging from 2 to 2,99, System 3 when evaluation is ranging from 3 to 3,99 and System 4 when evaluation ranges from 4 to 5.

Dependent variable of business performance has been determined by indicators Return on Assets (ROA), Return on Equity Capital (ROE) and Profit Margin (ROS), calculated from data obtained in the questionnaire and contained in financial statements of enterprises for 2005 (statement of accounts and profit-and-loss statement).

A correlation of development of management functions and business performances as well as the strength of that correlation has been determined by correlation analysis by calculating Spearman's coefficients of correlation.

Enterprises failing to submit data from financial statements have been omitted from correlation calculation, although data about enterprise and development of management functions have been taken into account. Equity capital and assets has been also 0 in financial statements at some number of enterprises and for those enterprises Return on Assets and Equity Capital have not been calculated but Profit Margin has been calculated since this figure has been accessible.

3. RESEARCH RESULTS

3.1. Fundamental characteristics of small enterprises

Analysis of results of empiric research of fundamental characteristics of small enterprises in the Herzegovina – Neretva Canton has shown the following:
- The largest number of researched small enterprises was founded after 1990 namely 51,85% up to 2000, and 38,27%, after 2000, while a number of enterprises founded before 1990 is only 9,87%.
- The largest number of researched small enterprises deals with wholesale and retail trade namely as much as 40,74%, as well as with transport, storing or communications, 2,47% with catering business, etc.
- A form of organization of researched small enterprises has shown that dominant form of organization is limited liability company with a share of 72,84% of researched enterprises, trade shop 8,64%, trades and crafts 7,41%, stock company 4,94%, catering establishment 2,47% etc.
- A dominant form of ownership of researched small enterprises is private with a share of 97,53%.
- By analyzing a number of employees in researched small enterprises it has come to a figure that 9,88% of enterprises are with 1 employee, 24,69% of enterprises with 2 employees, 11,11% of enterprises with 3 employees, 7,41% with 4 employees, 14,81% of enterprises with a number of employees ranging from 5 to 9, 14,81% of

enterprises with a number of employees ranging from 10 to 19 and 17,28% of enterprises with a number of employees ranging from 20 to 49.

3.2. Development of management functions in small enterprises

The development of management function planning has been researched by putting five questions in the questionnaire about accomplishment of this function in small enterprises as follows: (1) analysis of opportunities and threats from surrounding, (2) analysis of strengths and weaknesses of an enterprise, (3) using of a criterion for setting out goals, (4) business strategy and (5) bringing and harmonization of plans.

Research results have shown that the largest number of enterprises, 60% of them has evaluation of planning management function development falling under System 2 (evaluation from 2 to 2,99), 27% of them has evaluation falling under System 3 (evaluation from 3 to 3,99), 1% is falling under System 4 (evaluation from 4 to 5) and 12% of them are falling under System 1 (evaluation from 1 to 1,99).

Average evaluation of development of management function planning in researched small enterprises is 2,61.
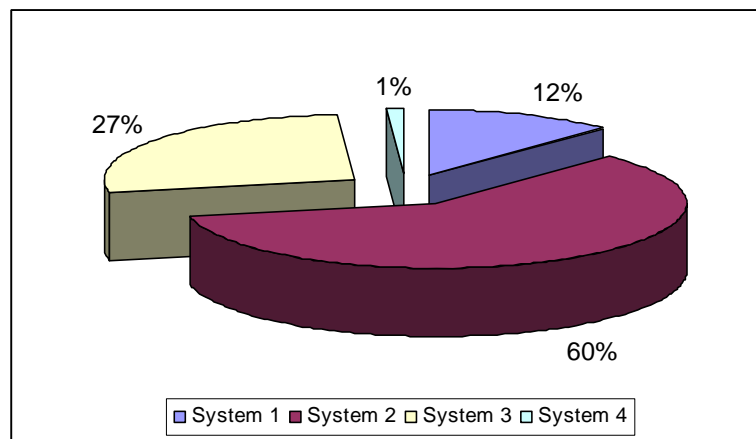
Figure 1.   Evaluation of development of management function planning

The development of management function organizing has been researched by putting 4 questions in the questionnaire about accomplishment of this function in small enterprises as follows: (6) changes in organization of an enterprise, (7) organization of jobs and forming of organizational units, (8) established coordination mechanisms, and (9) adequacy of organizing resources of an enterprise.

The research has shown that the largest number of researched small enterprises, 62% of them has evaluation of development of this function falling under System 2 (evaluation from 2 to 2,99), 26% of small enterprises has development of this function falling under System 3 (evaluation from 3 to 3,99), and by 6% has evaluation both in System 4 (evaluation from 4 to 5) and System 1 (evaluation from 1 to 1,99).

Average evaluation of development of management function organizing in researched small enterprises is 2,70.
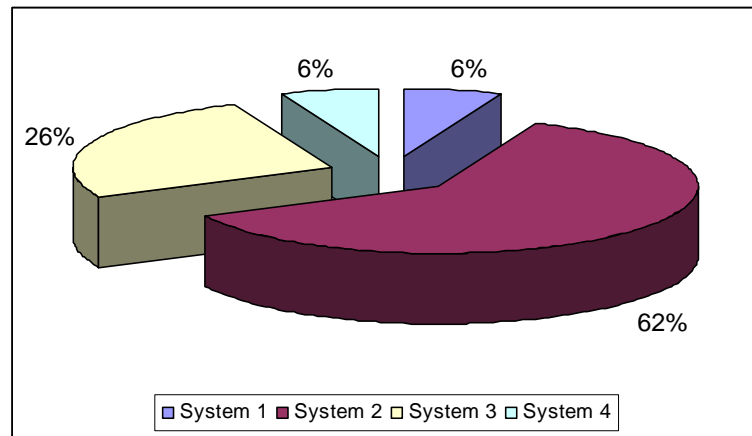
Figure 2.   Evaluation of development of management function organizing

The development of management function human resources management has been researched by putting 5 questions in the questionnaire about accomplishment of this function in small enterprises as follows: (10) employment of personnel, (11) assignment of personnel to work places, (12) personnel training, (13) personnel development and (14) wages management.

By analyzing research results it has been established that 49% of researched small enterprises has evaluation of development of this management function falling under System 2 (evaluation 2 to 2,99), 35% of enterprises has evaluation under System 3 (evaluation 3 to 3,99), 9% of enterprises has evaluation under System 4 (evaluation from 4 to 5), and 7% of enterprises has evaluation under System 1 (evaluation from 1 to 1,99).
Average evaluation of development of management function human resources management is 2,79.
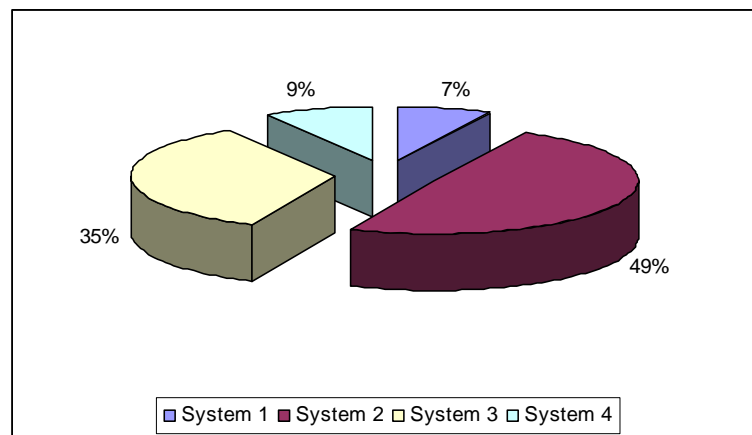
Figure 3.   Evaluation of development of management function human resources management

The development of management function leading has been researched by putting 4 questions in the questionnaire about accomplishment of this function in small enterprises as follows: (15) following a manager, (16) group cohesion in an enterprise, (17) way of communication within an enterprise and (18) leading style.

The research has shown that the largest number of small enterprises, 73% of them has evaluation of development of this function falling under System 4 (evaluation from 4 to 5), 20% of them has evaluation under System 3 (evaluation from 3 to 3,99), 7% of them has

evaluation under System 2 (evaluation from 2 to 2,99), and no one enterprise this evaluation is not falling under System 1 (evaluation 1 to 1,99).

Average evaluation of development of management function leading in researched small enterprises is 4,05.
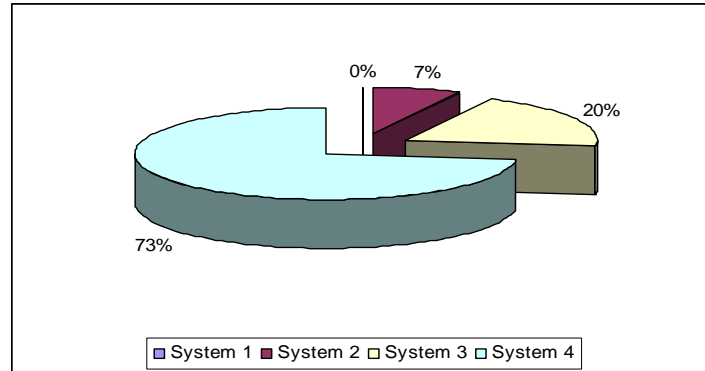
Figure 4.   Evaluation of development of management function leading

The development of management function controlling in small enterprises has been researched by putting 5 questions in the questionnaire about accomplishment of this function in enterprises as follows: (19) application of international quality standards, (20) method of carrying out a control, (21) comparison of performances with set out goals, (22) undertaking of actions, and (23) subjects of control.

The research has shown that evaluation of development of this function in small enterprises, 44% of them fall under System 2 (evaluation from 2 to 2,99) as the larges number of enterprises, 35% of enterprises are under System 3 (evaluation from 3 to 3,99), 2% of enterprises are under System 4 (evaluation from 4 to 5) and 19% of them are under System 1 (evaluation from 1 to 1,99).

Average evaluation of development of management function controlling in researched enterprises is 2,95.
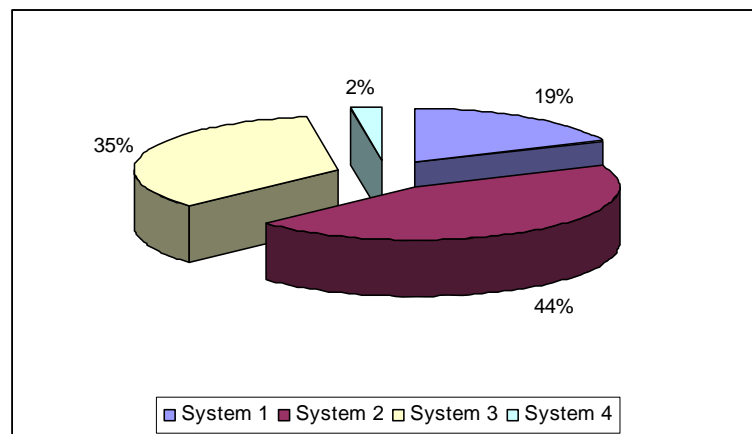
Figure 5.   Evaluation of development of management function controlling

According to research results the average total evaluation of development of all management functions in small enterprises is 2,95, and 54% of enterprises are falling under System 2 (evaluation from 2 to 2,99), 42% of enterprises are under System 3(evaluation from 3 to 3,99), and 2% of enterprises are under both System 1 (evaluation from 1 to 1,99) and System 4 (evaluation from 4 to 5).
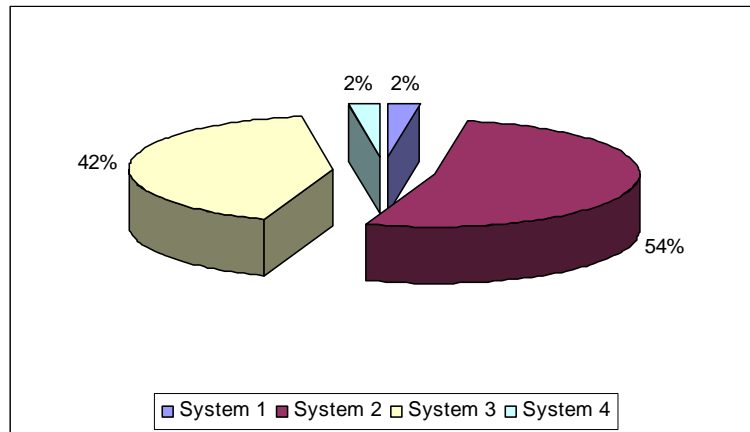
Figure 6.   Total evaluation of development of all management functions in small enterprises

By comparison of evaluations of development of all management functions shown in Figure 7 is noticeable that pronouncedly the most developed management function in small enterprises is leading with average evaluation 4,05, while other functions have evaluations from 2,95 controlling to 2,79 human resources management.
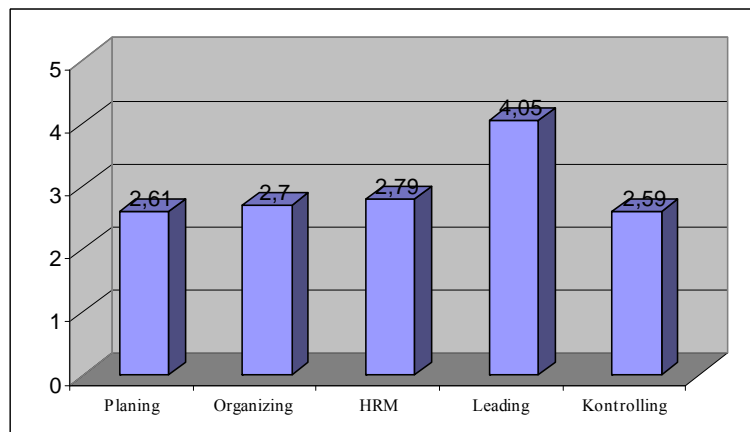
Figure 7.   Evaluation of development of management functions

By analyzing indicators, pointing to development of some management functions is also noticeable that some indicators of development of management functions are pronouncedly more developed than other indicators of development of the same function, as shown in Figure 8. As shown on the figure from 1 to 5 are indicators for function planning, from 6 to 9 are indicators for function organizing, from 10 to 14 are indicators for function human resources management, from 15 to 18 are indicators for function leading and from 19 to 23 are indicators for function controlling.
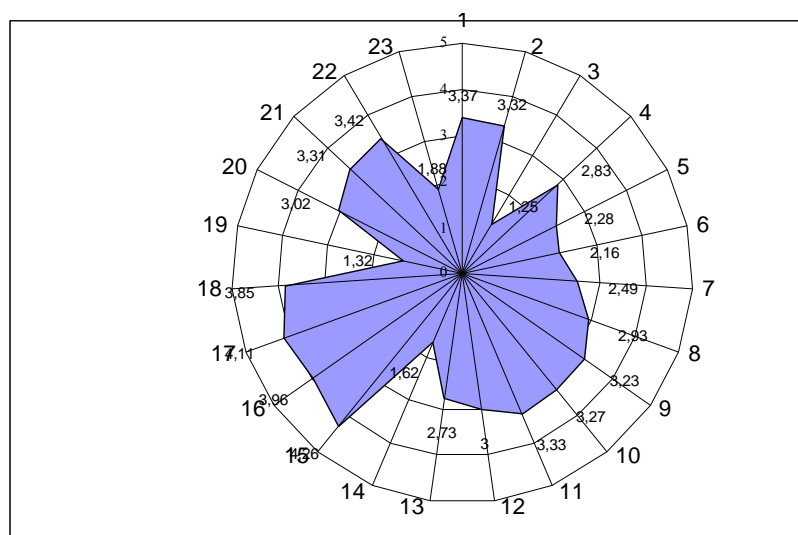
Figure 8.   *Evaluation of development of management functions according to indicators of functions development*

3.3. Business performance of small enterprises

In line with established model there have been researched Return on Assets, Return on Equity Capital and Profit Margin as indicators of business performances of small enterprises.

Return on Assets, as a variant of return on investment is a measure showing efficiency of a manager in using of available resources. According to obtained research results, 4% of small enterprises are operating at a loss, so they are not making Return on Assets. Return on Assets ranging more than 0 to 4,99% is made by 50% of small enterprises, ranging from 5% to 9,99% is made by 15% of small enterprises, ranging from 10 to 19,99% is made by 18% of small enterprises and 20% and more Return on Assets is made by 13% of small enterprises.
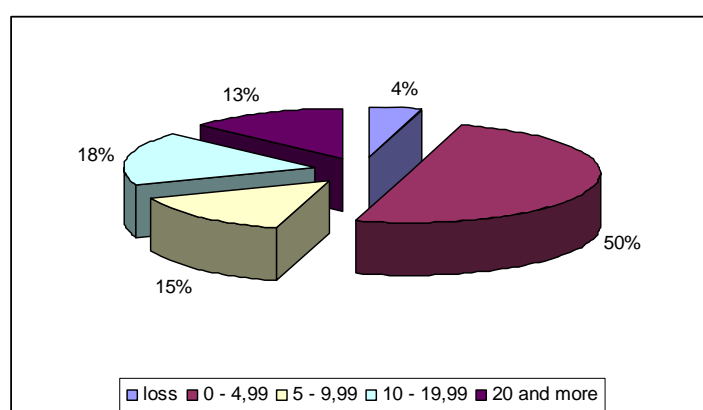
Figure 9.   *Return on Assets in small enterprises*

Return on Equity Capital being also a variant of return on investment shows managerial efficiency in using of own resources. According to obtained data, 4% of enterprises are operating at a loss, and thus are not making Return on Equity Capital. Return on Equity Capital ranging more than 0 to 4,99% is made by 29% of enterprises, ranging from 5 to 9,99% is made by 13% of small enterprises, ranging from 10 to 19,99 is made by 21% of enterprises and Return on Equity Capital 20% and more is made by 33% of enterprises.
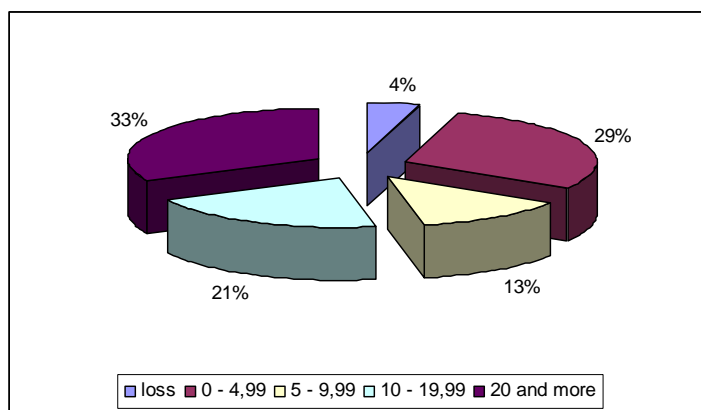
Figure 10.   Return on Equity Capital in small enterprises

Profit Margin shows a percentage of profit earned according to value of completely done work expressed through realized income. According to obtained results in addition to 4% of enterprises operating at a loss, Profit Margin more than 0 to 4,99% is earned by 57% of enterprises, ranging from 5 to 9,99% is earned by 18% of small enterprises, ranging from 10 to 19,99 is earned by 16% of enterprises and Profit Margin 20% and more is earned by 5% of enterprises.
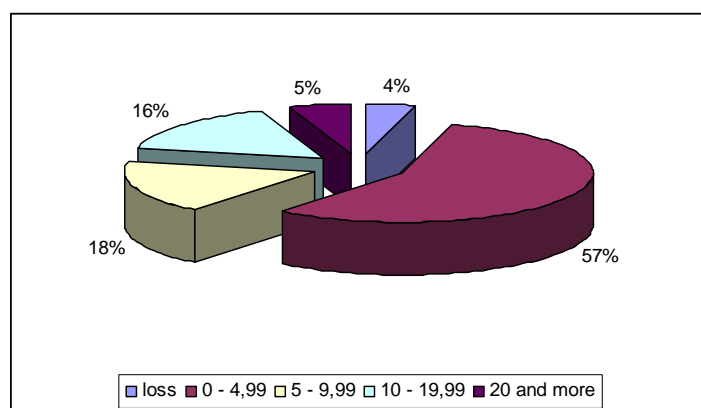
Figure 11.   Profit Margin in small enterprises

3.4. Interdependence of development of management functions and business performances of small enterprises

Interdependence of development of management functions and business performances of small enterprises in accordance with established model is determined by calculation of Spearman's correlation coefficients, which are shown in Table 2.

Correlation coefficients showing a correlation of Return on Assets as dependent variable and development of management functions in small enterprises as independent variable are as follows: with function planning is $r = 0,053$, with function organizing is $r = 0,102$, with function human resources management is $0,150$, with function leading is $r = 0,261$ and with function controlling is $0,217$. Correlation coefficient showing a correlation of Return on Assets and total development of management functions in small enterprises is $r = 0,151$.

Table 2. Spearman's correlation coefficient of correlation of development of management functions business performances

The management functions	Business performances		
	Return on Assets	Return on Equity	Profit margin
Planning	0,053	0,118	0,118
Organizing	0,102	0,141	0,055
HRM	0,150	0,126	0,217
Leading	0,261	0,172	0,203
Controlling	0,217	0,103	0,292
Total	0,151	0,058	0,214

Since all correlation coefficients between Return on Assets and development of management functions are greater than zero it can be explained that there is a positive connection between them, but given that correlation coefficients are less than 0,50 it can be concluded that there is a weak correlation.

Correlation coefficients showing Return on Equity Capital as dependent variable and development of management functions in small enterprises as independent variable are as follows: with function planning is r = 0,118, with function organizing is r = 0,141, with function human resources management is 0,126, with function leading is r = 0,172 and with function controlling is 0,103. Correlation coefficient showing a correlation of Return on Equity Capital and total development of management functions in small enterprises is r = 0,058.

Since all correlation coefficients between Return on Equity Capital and development of management functions are greater than zero it can be explained that there is a positive connection between them, but given that correlation coefficients are less than 0,50 it can be concluded that there is a weak correlation.

Correlation coefficients showing a correlation of Profit Margin as dependent variable and development of management functions in small enterprises as independent variable are as follows: with function planning is r = 0,118, with function organizing is r = 0,055, with function human resources management is 0,217, with function leading is r = 0,203 and with function controlling is 0,292. Correlation coefficient showing a correlation of Profit Margin and total development of management functions in small enterprises is r = 0,214.

Since all correlation coefficients between Profit Margin and development of management functions are greater than zero it can be explained that there is a positive connection between them, but given that correlation coefficients are less than 0,50 it can be concluded that there is a weak correlation.

By comparative analysis of correlation coefficients of business performance dependent variable and independent variable of management functions development in small enterprises shown on Figure 12 it is noticeable that the strongest connection is established between the management function controlling and Profit Margin, then between function leading and Return on Assets. The weakest correlation is established between management function planning and Return on Assets as well as management function organizing and Profit Margin.

It is also established that the strongest connection is between total development of management functions as independent variable and Profit Margin, as dependent variable, then Return on Assets and the weakest is with Return on Equity Capital.
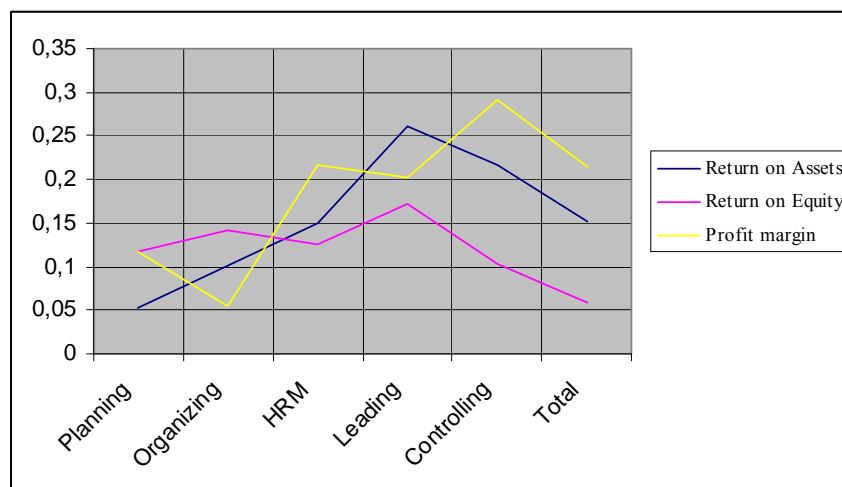
Figure 12.   *Interdependence of development of management functions and business performances*

4. CONCLUSION

Small and medium enterprises are agents of a permanent innovation renewing, transforming and stimulating the development of economies worldwide, and recently economy in Bosnia and Herzegovina too. Dynamism of entrepreneurship is such that a large number of business undertakings are born every hour from day to day all over the world. In developed market economies, a relative market share of small enterprises is growing constantly by comparison with a total number of enterprises.

However, small enterprises despite a great dynamics they are developing, great significance they have for development of a society, and ever more concern of that society for development and subsistence of small enterprises, many of those small enterprises are discontinuing to exist or operate.
The fundamental causes of failure of small enterprises are in management mistakes, since managers are lacking elementary knowledge from planning, organizing, human resources management, leading and controlling and it is especially pronounced when a small enterprise becomes to grow and increase number of employees and turnover in the course of time.

The research has shown that average evaluation of development of management function planning is 2,61, function organizing 2,70, function human resources management is 2,79, management function leading is 4,05 and function controlling is 2,59. The average evaluation of development of all management functions is totally 2,95 in small enterprises.

It can be concluded by comparing evaluations of developments of all management functions, that the most developed management function is convincingly leading in small enterprises, while other functions are approximately equally developed.

Analysis of interdependence of independent variable development of management functions and dependent variable business performance of small enterprises has shown that between all management functions and all indicators of business performances (Return on Assets, Return on equity Capital and Profit Margin), exist a positive correlation. It has been also established that a positive correlation exists between the total development of all management functions and all indicators of business performances. Since all correlation coefficients are positive but still less than 0,50 it can be concluded that there is a correlation but it is weak. The strongest connection has been established between management function controlling and business performance Profit Margin r = 0,292, as well as function leading and Return on Assets r = 0,261. The weakest correlation has been established between the management function planning and Return on Assets r = 0,053 as well as the management function organizing and Profit Margin r = 0,055.

Based on research results it can be concluded that a hypothesis set out for this research „Development of management functions influences on business performances of small enterprises"is accepted.

Since the research has confirmed a correlation between variables, it can be concluded that it is necessary to assist managers and entrepreneurs in small enterprises in acquiring new knowledge and skills from the management. In such a manner operating results shall be also improved and thereby assure subsistence and development of small enterprises in the long run too.

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A NEW LOOK AT THE EFFICIENCY OF BANKING AND CAPITAL MARKETS IN TRANSITION: AN ANALYSIS OF SECTORAL CASH FLOWS[1]

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1. INTRODUCTION AND MOTIVATION

The goal of this project is to analyze the development of the financial system in the Visegrad Four group of countries (Czech Republic, Hungary, Poland and Slovakia), and identify the driving forces and assess their contribution to the current situation. Particularly, the project addresses the following questions: is there a common pattern of structural change; do banks lose importance in the process of change; and are these four financial systems becoming more similar? To our knowledge, this is the first comparative study of Czech Republic, Hungary, Poland and Slovakia which analyses comparable data on disintermediation, securitization and the role of banks.

With the development of theories based on economics of information and incentives, great deal of attention has been devoted to the studies of role of financial institutions and design of financial systems. Rapid development of capital markets, emergence of non-bank financial intermediaries, and growth of the securitization business along with globalization of the international financial markets all manifest fundamental ongoing changes in the design of

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financial systems. Extensive literature studies links between the functioning of the financial system, effectiveness of the monetary policy, and economic growth in standard market economies (e.g., King and Levine (1993a, 1993b), Levine and Zervos (1998)). Some empirical evidence (e.g., Miller (1998)) seems to suggest decreasing role of commercial banking (especially as collectors of savings) with non-bank financial institutions taking over. Other studies see banks' importance preserved thanks to the increasing share of off-balance sheet activities (Boyd and Gertler (1993, 1994, 1995)), international lending (McCauley and Seth (1992)), or "unique features" of banks as they are well equipped for assessing and monitoring complex cases (e.g., James (1987), Bhattacharya and Thakor (1993)).

The structure and health of the financial system also turns out to be fundamental determinant of the progress and successful transition to market economy in the former centrally planned economies. In Western Europe the research focus is on whether the traditionally "bank-dominated" financial systems of continental Europe (esp. Germany) are losing ground in favor of the "market-dominated" systems established in countries like United Kingdom or USA. In the transition countries, both banking and capital market sectors had to develop. While the capital markets did not exist at all under central planning, banks merely played the role of saving collectors and income redistribution vehicles for the communist governments, serving none of the important roles they assume in the market economy.

The direction and speed of the financial system development during transition has depended on a number of factors - macroeconomic situation, chosen course of privatization, legal environment, and openness of economy to foreign investors, to name just some of the most important. Unlike in developed economies, where speed of changes in the financial system structure may be inhibited by the traditional and long-term relationships between firms and commercial banks, development of the financial system in a transitional economy is to a much larger extent directly driven by the changes in the above mentioned factors. Corporate financial distress as well as financial crises in the Central European emerging markets may affect banks' behavior to a larger extent than in established market economies (see Dahiya, Saunders, and Srinivasan, 2003 for analysis of financial distress and bank lending relationships). Differences among transition countries then determine variations in the actual speed and course of the financial system development, allowing the researcher to assess the role and importance of individual underlying factors.

2. EMERGENCE OF A BANKING SECTOR

Commercial banking sector emerged in Visegrad countries as a result of the breakup of the state-bank based monobank system combined with issuing licenses to new banks. The overall development of the bank privatization in Visegrad Four countries is summarized in Figure 1 that shows the proportion of the state control in the banks measured as the asset share of the banks owned by state. All four countries exhibit a similar level of state ownership in their banking sector in early 1990's. Hungary produced the fastest emergence of truly private banks as it managed to reduce state ownership from 75% in 1993 to about 10% in 1997. The state control remains slightly below 10% until now. Poland and Slovakia conducted their banking privatization at a slower pace than Hungary and on top of it stagnated for a non-negligible time. Slovakia halted bank privatization during 1997-2000 but eventually continued in a rapid pace. Poland slowed down in 1999 and has been stagnating since that time. Czech Republic

seems to be working at the steadiest pace and managed to achieve full banking privatization by 2001.
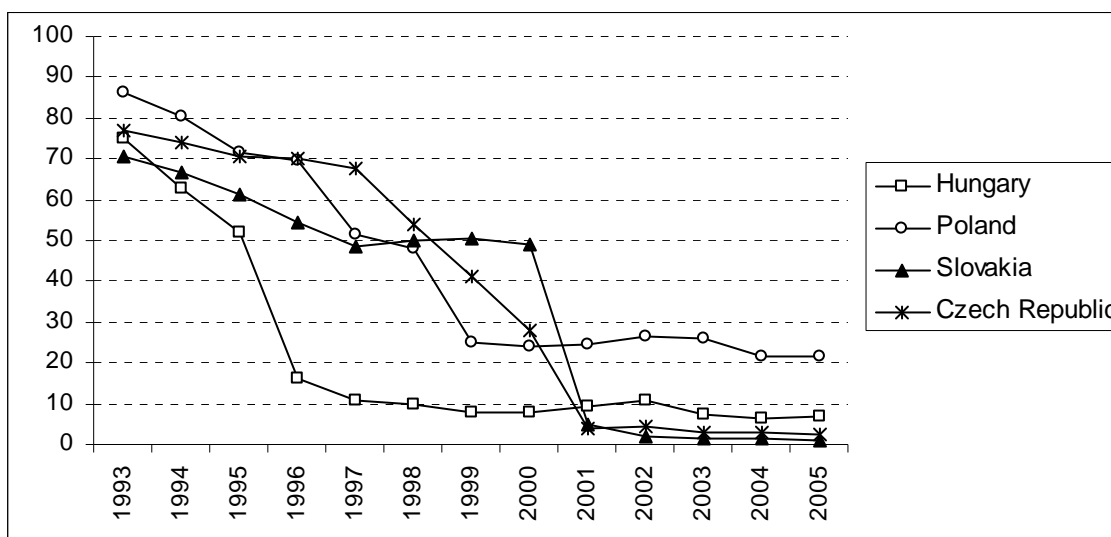
Figure 1. Asset share of state owned banks (in %)

On the micro-level the privatization developments differed in each country quite a lot. A following brief overview brings essential aspects of the banking sector emergence in the Visegrad countries.

2.1. Czech Republic

Privatization of the four largest banks begun in 1998 when a minority share in the Investicni and postovni banka (IPB) was sold to the Japanese Nomura bank. In 1999 Ceskoslovenska obchodni banka (CSOB) was privatized via sale of 66% stake to the Belgian KBC. In 2000 Ceska sporitelna (CS) was sold to the Austrian Erste Bank. In 2000 the IPB was put into enforced administration due to bad loans and failure to meet capital adequacy requirements. Its assets and liabilities were sold to the CSOB with full state guaranties; this combined banking equity enabled to control 46% of the market. Bank privatization was completed when state sold 60% share in the last state-owned bank Komercni banka (KB) to the French Societe Generale.

2.2. Hungary

Emergence of the commercial banks in Hungary begun in the late 1980's as new law allowed firm and co-operative linked banks to enter the market along with foreign bank representations. In 1987 Hungary returned to the two-tier banking system. With a few exceptions most of the system, branch offices and clients of the new commercial banks which were established were drawn from the National Bank of Hungary. The privatization began in 1994 by selling Magyar Külkereskedelmi Bank, also known as the Hungarian Foreign Trade Bank. In 1998 the second largest bank Postabank was recapitalize and the state's stake in this bank increased to 50%. Despite of this a direct state ownership and control over the capital in the banking sector continued to decline to about 20%. In 1998 plans to sell remaining 29% stake of state in Kereskedelmi es Hitelbank have been delayed by unfavorable market conditions. By 2000 the banks were almost completely privatized and the state kept only 7.7%

of shares in commercial banks. As the last significant privatization was the transfer of the Postabank to the Hungarian Post in 2001 and its sale to Erste Bank in 2003, which created nationwide institution with extensive network of branches.

2.3. Poland

Bank privatization in Poland has been slow as the privatization of other state enterprises. By 1998 the competition in the banking sector was still limited. State arranged for portfolios of the major banks to be cleaned up, but further development was dampened by the slow pace of privatization and by restrictions on foreign entry and competition. Restrictions on the entry of foreign banks were lifted in 1999 and banking privatization slowly picked up speed. First was the plan to sell state's stake of 40% in Bank Polski Handlowy (BPH). By 2000 more than two thirds of the Polish banks were privatized. The banking privatization can be considered as completed by 2005 when 9 of 10 largest banks were majority foreign-owned after privatization of Bank Gospodarki Żywnościowej in 2004.

2.4. Slovakia

Process of the bank privatization in Slovakia begun at the end of 1997 when the third largest bank in country, Investicna a rozvojova banka (IRB), collapsed with losses reaching almost 100 million USD. The problems of state banks were thus highlighted and subsequently the IRB was marked as the bank to be first privatized. In reality, its privatization was largely delayed. There was also a little progress in restructuring and privatization of the Vseobecna uverova banka (VUB) and Savings bank and the two largest banks were privatized only in 2001. VUB was sold to the Italian group Inteso and Savings bank was sold to the Austrian Erste Bank. Their privatization was preceded by transfer of 108 billion SKK of bad loans to consolidation agencies; the total amounted to about 10% of the country's GDP. By 2001 the government had still majority in the third largest bank, IRB. The IRB bank was sold to OTP Bank Rt. Budapest in April 2002.

3. METHODOLOGY AND DATA

Methodology we use for measurement of the financial system development follows Schmidt, Hackethal and Tyrell (1999) and utilizes the concept of an economy as a set of sectors that interchange financial assets. In a context of our research it is the interaction of the banking sector with other sectors in an economy that is of interest. Based on this funds flow concept, data on resulting accumulated and value-adjusted financial assets of the banking sector with respect to other sectors in an economy can be constructed.

We have assembled data on financial flows between various sectors of economy for Visegrad Four countries. Data were assembled for the following sectors: banking sector, central bank, non-banking financial institutions, public sector, non-financial companies, households, and the rest of the world. The data come from the following sources: Central Statistical Office of Poland, Czech National Bank, Czech Statistical Office, National Bank of Hungary, National Bank of Poland and National Bank of Slovakia. Yearly data cover time span from 1991 till 2005 in general but its beginning differs with respect to a country.

The scope of our data as well as methodological approach can be best illustrated with the help of the Tables 1-4 in the Empirical section. Each entry in a given row indicates proportions of financial claims which the sector in the row heading holds on the banking sector in a specific year indicated in the column heading. The proportion is to the total assets of all sectors in a given year. The claim can be in a form of credit or debit. Further, each row contains the index that illustrates how the financial claims of a given sector evolve over the time, including the developments of the total assets for all sectors. The indices are free from the effect of inflation. The reason for employing the indices to illustrate the time-varying financial claims is that their absolute values are collected in four different currencies and by using an index we avoid effect of uneven development in the currencies' values (exchange rates).

The Importance of these individual channels is assessed using Intermediation Ratios (IR) that indicate what portion of total financial flows (credits or debits) of a given sector is channeled to or from the banking sector. Thus, for example, the Debit-IR of Banks indicates the proportion of funds that banks obtain from other type of intermediaries (NBFI), while Credit-IR of Households measures the fraction of total financial claims of households that are claims on the two financial sub-sectors.

These ratios can be used to formulate and test stylized hypotheses about investment and funding patterns of individual sectors of the economy which will enable to test the following hypotheses:

Financial system becomes more capital-based and less bank-based; banking is a declining industry (tested e.g. using partial credit-IR of all Non-financial Sectors with Banks and the partial debit-IR of all Non-financial Sectors with Banks)

Only, or primarily, the role of banks as mobilizers of savings from the non-financial sectors is declining (tested by examining what fraction of bank funds comes from, or goes to, NBFIs).

4. EMPIRICAL RESULTS

4.1. Financial flows: Credits and Debits

Empirical results on monetary flows between various sectors and the commercial banks are summarized in Tables 1-4. For each country we distinguish between credits and debits that are reported in parts A and B of each table, separately for all four countries.

In terms of credits households are the largest creditors of the commercial banks in the Czech republic, Hungary, Poland and Slovakia. Non-financial companies are the second largest group in all four countries in general. An exception is Poland, where external sources (rest of the world) have been increasing the share over time.

In terms of debits non-financial companies are the largest borrowers uniformly across the four countries in general. Two exceptions are markedly visible. First, in Poland, external sources have been quite strong over time. Second, in the recent past central bank became the largest debtor in Slovakia with the peak in 2005. To the lesser extent central bank became a large debtor in the Czech Republic as well, with the peak in 2002. We conjecture that the extent of financial flows going from banks to the central banks may be associated with repayments of

loans during the banking sector post-privatization consolidation as well as increase of required deposits in absolute terms.

Table1a. Czech Republic: proportions of credits flowing from the sectors to the banking sector (sectors are creditors, banks are debtors)

Credits			Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	44,4%	46,0%	49,7%	53,3%	58,0%	64,2%	66,1%	68,0%	64,8%	58,5%	60,4%	61,6%	57,9%
		Index	100	109	121	127	156	156	155	158	168	165	172	178	184
2	NFC	Share	27,9%	30,6%	30,4%	29,7%	23,5%	20,6%	19,6%	19,7%	20,6%	21,4%	23,1%	23,2%	24,1%
		Index	100	115	117	113	101	80	73	73	85	96	105	107	122
3	PS	Share	10,8%	8,0%	5,8%	5,3%	4,3%	4,3%	4,6%	5,6%	7,0%	12,0%	9,1%	9,2%	9,7%
		Index	100	77	58	52	47	43	44	54	74	138	106	109	127
4	RW	Share	0,2%	0,3%	0,8%	0,9%	3,5%	3,3%	3,4%	3,3%	2,5%	2,5%	2,1%	2,1%	2,7%
		Index	100	144	376	383	1721	1487	1454	1414	1191	1277	1111	1110	1575
5	CB	Share	10,8%	9,5%	8,1%	8,2%	8,1%	4,4%	2,9%	1,5%	0,3%	0,2%	0,0%	0,0%	1,6%
		Index	100	93	81	80	90	44	28	14	3	2	0	0	20
6	NBFI	Share	5,9%	5,6%	5,1%	2,6%	2,7%	3,2%	3,5%	1,8%	4,7%	5,5%	5,2%	3,9%	4,1%
		Index	100	99	93	47	54	57	62	31	92	116	111	84	97
Sum of shares			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Index of credits			100	115	129	138	170	169	167	172	200	222	224	234	263

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW ~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

Table 1b. Czech republic: proportions of debits of the banking sector with the sectors (sectors are debtors, banks are creditors)

Debits			Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	13,9%	13,1%	10,6%	10,3%	8,6%	7,9%	8,7%	9,6%	11,2%	12,9%	16,6%	21,7%	26,2%
		Index	100	106	91	85	84	74	76	79	86	109	143	184	239
2	NFC	Share	81,6%	74,7%	69,0%	73,9%	70,7%	62,6%	60,7%	57,1%	42,6%	31,4%	30,2%	31,9%	33,3%
		Index	100	103	102	104	118	99	90	80	56	45	44	46	52
3	PS	Share	3,6%	3,6%	3,2%	0,5%	1,4%	2,2%	2,6%	4,3%	13,2%	12,4%	11,3%	8,1%	5,3%
		Index	100	113	107	17	53	79	89	139	398	404	380	269	189
4	RW	Share	0,5%	0,3%	0,3%	0,6%	2,1%	5,7%	6,7%	5,9%	3,8%	3,0%	3,1%	2,9%	3,8%
		Index	100	75	74	137	579	1526	1668	1398	828	728	752	694	994
5	CB	Share	0,5%	8,3%	17,0%	14,1%	15,3%	20,0%	21,0%	22,6%	24,7%	35,5%	33,1%	29,8%	25,3%
		Index	100	2028	4425	3516	4515	5615	5510	5618	5740	8984	8602	7625	6978
6	NBFI	Share	0,0%	0,0%	0,0%	0,5%	1,9%	1,6%	0,4%	0,4%	4,6%	4,7%	5,8%	5,6%	6,1%
		Index	100	195	242	4178	17134	13536	3149	3119	32672	36301	45585	43947	51547
Sum of shares			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Index of debits			100	124	144	150	192	203	194	190	187	207	213	215	236

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW ~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

When the extent of growth in financial flows is compared (Table 1), the index of banking debts is 263 to credits at 236. The role of the banking sector is quite balanced in terms of intermediation.

Table 2a. Hungary: proportions of credits flowing from the sectors to the banking sector (sectors are creditors, banks are debtors)

	Credits		Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	39,5%	41,6%	45,4%	47,5%	45,5%	46,7%	46,0%	45,5%	47,3%	46,5%	44,2%	43,8%	41,1%
		Index	100	105	106	107	107	112	114	116	123	126	138	144	154
2	NFC	Share	25,1%	22,4%	22,2%	23,5%	23,4%	21,6%	22,9%	23,9%	24,3%	26,1%	24,1%	22,5%	21,9%
		Index	100	89	81	83	86	81	89	96	99	111	118	117	129
3	PS	Share	7,1%	6,7%	5,5%	4,9%	4,7%	4,3%	4,1%	4,2%	4,8%	4,9%	4,0%	4,6%	3,4%
		Index	100	93	70	61	61	57	56	59	69	73	70	83	71
4	RW	Share	9,9%	11,8%	15,6%	15,9%	20,1%	22,4%	23,4%	23,6%	21,3%	19,2%	25,4%	25,9%	29,7%
		Index	100	119	145	143	188	214	230	240	220	208	316	340	443
5	CB	Share	17,4%	16,1%	10,0%	6,2%	4,0%	3,3%	2,0%	1,3%	0,6%	0,3%	0,1%	0,1%	0,0%
		Index	100	92	53	32	21	18	11	8	4	2	1	1	0
6	NBFI	Share	1,1%	1,4%	1,3%	1,9%	2,2%	1,7%	1,6%	1,5%	1,6%	3,0%	2,2%	3,0%	3,8%
		Index	100	129	112	157	194	148	143	139	157	300	255	370	526
	Sum of shares		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Index of credits		100	118	140	168	206	240	273	309	343	377	456	512	603

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW
~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

Table 2b. Hungary: proportions of debits of the banking sector with the sectors (sectors are debtors, banks are creditors)

	Debits		Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	15,0%	14,0%	10,5%	8,6%	7,2%	7,1%	7,6%	9,4%	12,3%	17,7%	23,1%	24,8%	25,6%
		Index	100	95	67	50	44	44	53	70	92	148	227	271	331
2	NFC	Share	39,0%	41,4%	39,1%	43,0%	47,2%	47,0%	44,6%	50,2%	48,4%	43,2%	43,0%	41,3%	38,4%
		Index	100	108	96	96	111	112	121	143	139	139	162	173	191
3	PS	Share	2,0%	4,1%	4,7%	2,8%	2,1%	1,8%	2,3%	2,2%	3,2%	7,4%	5,0%	4,0%	4,3%
		Index	100	209	223	120	94	82	119	122	176	460	363	324	413
4	RW	Share	7,7%	5,7%	5,5%	8,6%	12,8%	15,7%	15,7%	11,8%	16,2%	10,8%	11,1%	9,7%	9,0%
		Index	100	76	69	98	153	192	217	171	239	176	213	206	228
5	CB	Share	35,8%	34,1%	39,5%	36,0%	29,7%	26,6%	27,5%	22,2%	14,8%	13,4%	8,4%	10,1%	12,9%
		Index	100	97	105	88	76	69	81	69	46	47	34	46	70
6	NBFI	Share	0,5%	0,7%	0,7%	1,0%	1,1%	2,0%	2,4%	4,1%	5,2%	7,5%	9,5%	10,1%	9,8%
		Index	100	125	123	171	190	344	472	850	1093	1759	2609	3086	3568
	Sum of shares		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Index of debits		100	121	146	165	204	238	295	340	377	441	543	645	791

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW
~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

The extent of banking intermediation in Hungary (Table 2) is about three times larger than that in the Czech Republic when increase in financial flows indices is compared. Index growth over the period under research reaches 603 (debts) and 791 (credits).

Table 3a. Poland: proportions of credits flowing from the sectors to the banking sector (sectors are creditors, banks are debtors)

	Credits		Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	50,4%	50,1%	52,8%	52,1%	55,5%	58,1%	54,7%	59,3%	58,3%	57,2%	52,0%	48,5%	46,4%
		Index	100	102	110	121	111	139	145	164	172	163	157	152	154
2	NFC	Share	22,4%	25,1%	21,7%	21,3%	23,6%	23,1%	23,7%	20,4%	21,3%	22,1%	25,3%	29,2%	31,8%
		Index	100	115	102	111	106	125	142	127	142	142	172	206	238
3	PS	Share	4,3%	4,3%	4,9%	5,3%	6,7%	6,3%	6,1%	6,0%	5,6%	6,7%	6,3%	7,3%	8,0%
		Index	100	102	120	143	156	178	188	195	195	224	224	269	312
4	RW	Share	5,0%	4,4%	4,5%	4,9%	5,8%	6,1%	9,1%	8,3%	8,8%	9,2%	11,8%	10,2%	8,7%
		Index	100	90	96	114	116	148	245	231	262	265	360	324	292
5	CB	Share	10,0%	8,2%	6,9%	7,1%	6,2%	3,8%	3,0%	2,5%	1,9%	1,3%	1,1%	1,0%	0,7%
		Index	100	84	73	84	63	46	40	35	28	19	17	16	11
6	NBFI	Share	8,0%	8,0%	9,1%	9,3%	2,3%	2,5%	3,4%	3,5%	4,1%	3,4%	3,4%	3,9%	4,5%
		Index	100	101	119	135	29	38	56	61	76	61	64	76	95
	Sum of shares		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Index of credits		100	136	179	238	235	315	374	429	483	474	507	545	590

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW ~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

Table 3b. Poland: proportions of debits of the banking sector with the sectors (sectors are debtors, banks are creditors)

	Debits		Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	3,5%	4,1%	5,2%	8,7%	12,4%	13,3%	16,4%	18,3%	18,0%	20,7%	22,7%	23,8%	28,0%
		Index	100	112	147	255	350	408	583	699	761	852	992	1121	1399
2	NFC	Share	48,3%	46,8%	47,3%	50,8%	58,9%	60,4%	57,6%	55,0%	49,7%	50,4%	48,6%	42,5%	39,9%
		Index	100	93	96	108	120	134	148	152	152	150	154	145	144
3	PS	Share	3,0%	1,1%	1,5%	1,7%	2,3%	3,7%	5,1%	2,6%	3,7%	4,8%	6,0%	5,7%	5,2%
		Index	100	34	48	56	74	130	207	115	178	226	303	308	299
4	RW	Share	19,8%	23,1%	16,5%	13,1%	16,8%	9,9%	13,6%	16,7%	19,1%	15,9%	15,6%	21,8%	21,5%
		Index	100	112	82	68	84	54	86	113	143	116	121	182	189
5	CB	Share	7,2%	7,2%	9,1%	6,8%	8,5%	10,9%	4,2%	3,9%	6,7%	5,0%	3,7%	3,7%	2,7%
		Index	100	97	124	98	117	163	73	72	139	101	80	84	67
6	NBFI	Share	18,3%	17,7%	20,4%	19,1%	1,1%	2,0%	3,1%	3,4%	2,9%	3,2%	3,3%	2,6%	2,7%
		Index	100	93	110	108	6	11	21	25	24	25	27	24	26
	Sum of shares		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Index of debits		100	127	167	210	231	281	348	410	480	476	508	567	613

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW ~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

Poland records the second largest growth in debts and credits indices (Table 3) after Hungary. In terms of banking intermediation the this is the most balanced country in our sample as the index growth over the period under research reaches 590 (debts) and 613 (credits).

Table 4a. Slovakia: proportions of credits flowing from the sectors to the banking sector (sectors are creditors, banks are debtors)

	Credits		Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	46,4%	47,6%	47,8%	53,1%	57,0%	61,3%	64,0%	60,9%	59,5%	58,8%	55,6%	49,2%	48,0%
		Index	100	102	117	155	171	179	177	173	175	170	152	137	136
2	NFC	Share	26,1%	25,5%	23,6%	22,2%	19,0%	16,4%	17,6%	20,8%	21,9%	24,7%	29,3%	29,2%	31,9%
		Index	100	97	103	115	102	86	87	106	114	127	143	145	161
3	PS	Share	4,6%	7,2%	12,0%	9,8%	7,8%	5,7%	4,6%	5,8%	7,6%	7,8%	7,6%	11,9%	13,4%
		Index	100	154	294	285	236	168	128	165	222	226	207	335	379
4	RW	Share	0,1%	0,2%	0,2%	0,6%	1,0%	0,9%	0,9%	1,1%	1,3%	2,1%	1,2%	1,0%	1,6%
		Index	100	129	142	632	1036	856	797	1037	1316	2041	1120	989	1542
5	CB	Share	16,5%	13,4%	10,9%	9,0%	10,6%	12,1%	7,7%	6,1%	4,5%	1,9%	1,3%	0,7%	0,8%
		Index	100	81	75	74	90	100	60	49	38	15	10	5	6
6	NBFI	Share	6,3%	6,1%	5,5%	5,3%	4,5%	3,6%	5,2%	5,3%	5,3%	4,7%	5,0%	8,0%	4,4%
		Index	100	95	100	114	100	78	105	110	114	101	102	164	91
	Sum of shares		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Index of credits		100	112	141	178	195	203	211	244	270	274	282	309	322

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW ~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

Table 4b. Slovakia: proportions of debits of the banking sector with the sectors (sectors are debtors, banks are creditors)

	Debits		Banking Sector												
			1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1	HH	Share	11,1%	10,0%	8,9%	7,6%	8,3%	10,2%	10,6%	10,6%	13,8%	14,3%	17,5%	18,7%	19,0%
		Index	100	79	73	77	84	98	97	90	98	110	139	178	243
2	NFC	Share	80,4%	79,1%	78,0%	77,0%	73,3%	73,9%	73,4%	69,6%	57,5%	49,5%	46,4%	32,8%	28,7%
		Index	100	88	90	108	103	98	93	82	56	53	51	43	51
3	PS	Share	1,7%	2,0%	1,5%	1,8%	1,8%	2,4%	1,9%	1,7%	3,3%	4,4%	3,7%	5,4%	3,1%
		Index	100	104	80	122	121	149	113	96	154	224	191	339	262
4	RW	Share	0,1%	0,0%	0,4%	1,5%	2,5%	3,3%	1,9%	1,2%	1,1%	1,2%	2,4%	1,9%	1,9%
		Index	100	42	713	3239	5214	6539	3667	2095	1621	1929	3925	3746	5194
5	CB	Share	3,9%	5,9%	7,6%	7,7%	9,5%	8,0%	9,6%	14,4%	20,3%	26,0%	24,8%	34,8%	41,5%
		Index	100	135	181	224	274	218	250	351	411	573	565	951	1522
6	NBFI	Share	2,9%	3,0%	3,7%	4,4%	4,6%	2,3%	2,6%	2,5%	4,0%	4,5%	5,3%	6,5%	5,8%
		Index	100	93	118	174	182	85	91	84	111	135	164	240	291
	Sum of shares		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Index of debits		100	101	115	149	158	159	167	175	156	175	197	254	350

Note: B ~ Banking Sector, HH ~ Households, NFC ~ Non-financial Companies, PS ~ Public Sector, RW ~ Rest of World, CB ~ Central Bank, NBFI ~ Non-bank Financial Intermediaries.

Slovakia is in terms of banking intermediation extent (Table 4) comparable to the Czech Republic. However, the growth rate of the index over the period under research is larger by one third as it reaches 322 (debts) and 350 (credits).

Clearly, among the Visegrad Four two groups are formed. Hungary and Poland exhibit much larger increase in financial flows going between banks and other economic sectors when compared to the Czech Republic and Slovakia. We credit this result to the different institutional aspects associated with eh privatization of banks as well as emergence of the banking sector in general.

4.2. Intermediation Ratios (IR): Banking sector hypotheses

First hypothesis we test is formulated as "*Financial system becomes more capital-based and less bank-based; banking is a declining industry*". The hypothesis is tested by using partial credit-IR of all Non-financial Sectors with Banks shown in the Figure 2, and the partial debit-IR of all Non-financial Sectors with Banks shown in the Figure 3.
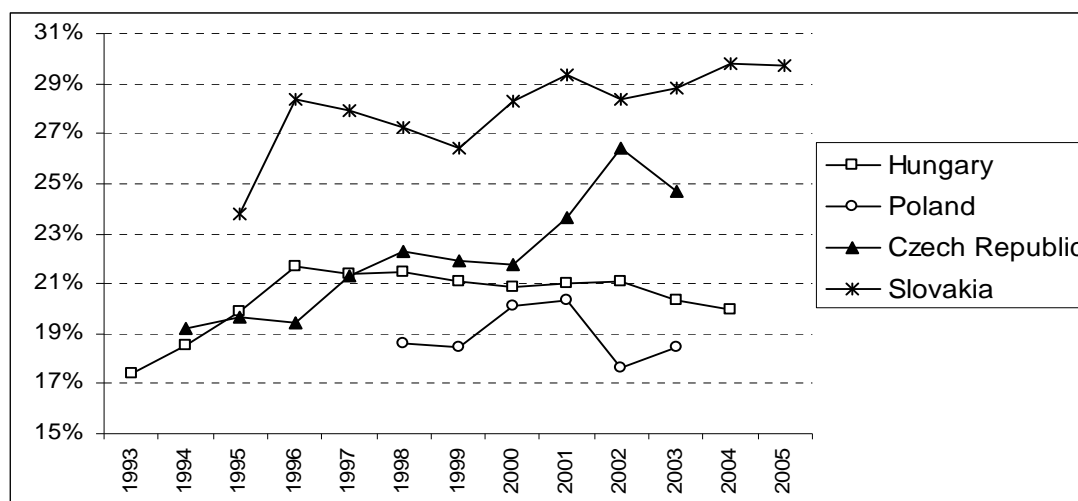
Figure 2. Deposits of non-financial sector/ Total financial assets of non-financial sector

Ratios of the non-financial sector deposits with banks to total financial assets of the non-financial sector are increasing in case of the Czech Republic and Slovakia. We can conclude that financial system is not becoming more capital-based, on contrary it is a bank-based system. Thus, we can reject the hypothesis as banking is clearly not declining industry in the two countries. In Hungary we see initial increase in the ratio (1993-1996) but a mild decrease afterwards (1997-2004). However, as the decrease goes from 21 to 20%, we are reluctant to make any strong statement in favor of the hypothesis. For Poland available data are too short to conclude effectively.
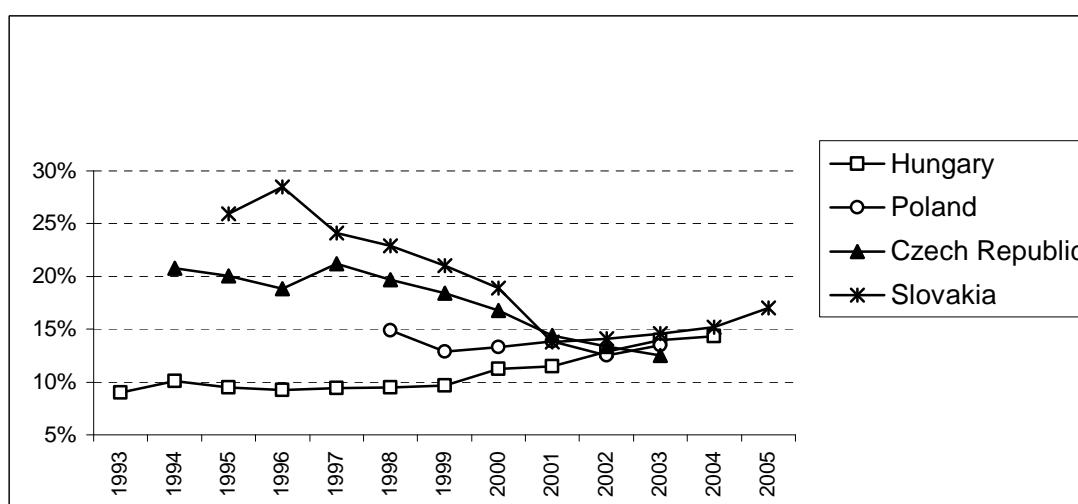
Figure 3. Loans to non-financial sector / Total financial liabilities of non-financial sector

In terms of loans that go from banks to non-financial sector, the ratio of the loans to total financial liabilities in the non-financial sector is decreasing in the Czech Republic and Slovakia. This means that in the two countries non-financial sector increasingly seeks and obtains funds from other sources than from banks. In this sense we cannot reject the hypothesis as financial system becomes more capital-based. For Hungary the decision is inconclusive for the period 1993-1999, but ratio increases afterwards. Thus, in terms of loans to non-financial sector, financial system becomes more bank-based. Again, short data span and unclear pattern precludes decision for Poland.

When we compare the results of the hypothesis testing with the extent of the financial flows described in the previous section 4.1, then conclusion tends toward quite active role of banks in the financial intermediation. Thus, we can hardly conclude that banking is a declining industry in the Visegrad Four countries as the combined evidence points at the opposite.

Second hypothesis we test is formulated as "*Only, or primarily, the role of banks as mobilizers of savings from the non-financial sectors is declining*". We test this hypothesis by examining what fraction of bank funds comes from the Non-banking financial institutions, or goes to them. Unfortunately, due to the lack of data on the total financial assets and liabilities of banks we are not able to test the hypothesis in case of Slovakia.
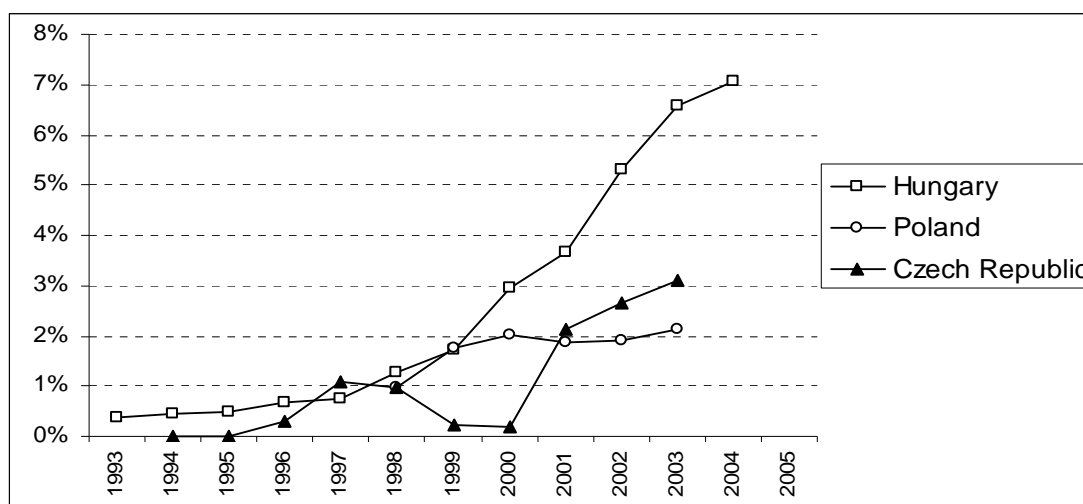
Figure 4. Non-securitized financial assets of banks from NBFIs/ Total financial assets of banks
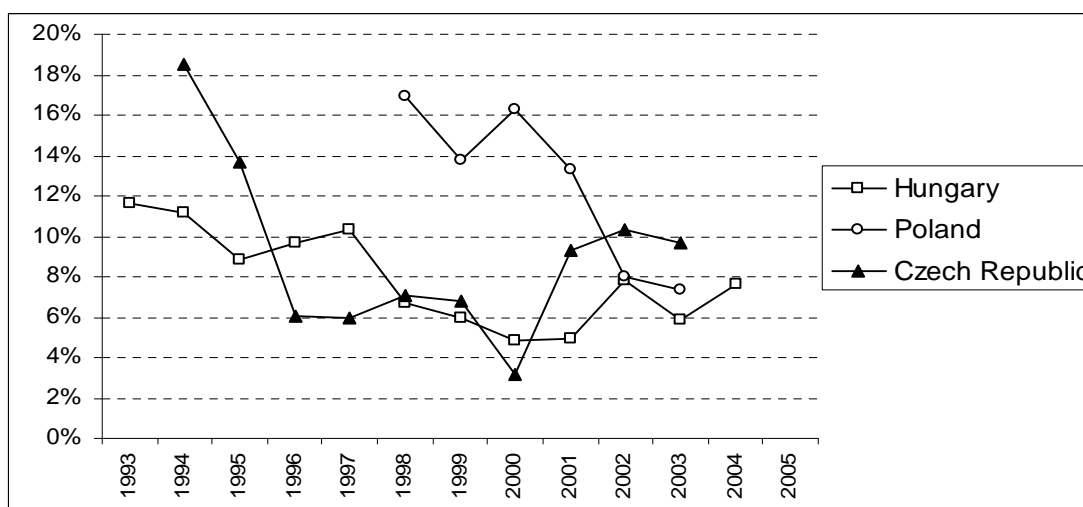
Figure 5. Non-securitized financial liabilities of banks to NBFIs/ Total financial liabilities of banks

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Based on the Figures 4 and 5, the ratio of funds that banks receive from the Non-banking financial institutions to the total of banks' financial assets is increasing for all three countries. In an agreement to this the fraction of funds that banks provide the Non-banking financial institutions with to the total of their financial liabilities is declining on average. This combined evidence shows that the role of banks as mobilizers of savings from the non-financial sectors is not declining.

Both results of the hypotheses testing should be viewed from the perspective of evolved ownership structure following privatizations. The financial sector was weak and banks were often undercapitalized in early stages of transition and usually only after the controlling stakes were sold to investors via foreign direct investments the situation improved. The assertion is supported by Bonin, Hasan and Wachtel (2005) studied bank privatization in six relatively advanced transition countries (including Czech Republic, Hungary and Poland), and found that foreign-owned banks are more cost-efficient than other banks and that they also provide better service, in particular if they have a strategic foreign owner. Further, from the microstructure perspective, Hanousek, Kočenda and Svejnar (2007) find that Czech banks tend to improve corporate performance (profit/sales and ROA) of the firms in which they are the single largest owner.

5. CONCLUSIONS

We have analyzed the development of the financial system in the Visegrad Four group of countries (Czech Republic, Hungary, Poland and Slovakia) in order to assess whether there is a common pattern of structural change, whether banks lose importance in the process of economic transformation and whether these four financial systems become more similar.

Empirical results on monetary flows between various sectors and the commercial banks show that in terms of credits households are the largest creditors of the commercial banks in the Czech Republic, Hungary, Poland and Slovakia. Non-financial companies are the second largest group in all four countries in general. In terms of debits non-financial companies are the largest borrowers uniformly across the four countries in general. Further, among the Visegrad Four two groups are formed. Hungary and Poland exhibit much larger increase in financial flows going between banks and other economic sectors when compared to the Czech Republic and Slovakia. We credit this result to the different institutional aspects associated with the privatization of banks as well as emergence of the banking sector in general.

We also test two hypotheses related to the viability of the banking sector. In general we find quite an active role of banks in the financial intermediation. Based on the evidence we conclude that the role of banks as mobilizers of savings from the non-financial sectors is not declining and that banking is not a declining industry in the Visegrad Four countries.

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CORPORATE GOVERNANCE IN STATE-CONTROLLED ENTERPRISES IN POLAND

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1. INTRODUCTION

One of the main goals of the enterprise sector reform in post-Communist countries is creation of the mechanisms that would increase its competitiveness, among others, through making enterprises' behavior more innovative and effective. The problem is that an enterprise that was already functioning in the period of centrally planned economy is not a *tabula rasa*, but a complicated technical, organizational and social system with specific division of power among main insider and outsider actors and interest groups, ways of operation and relationships with its environment, etc. All that had been formed before the transformation began and reflected the specific circumstances of the last years of the Communist system. Thus, a successful "entry" of such enterprises to the market economy was impossible without their radical restructuring that would lead to overcoming the "legacy of a Communist enterprise."

In most post-Communist countries, including Poland, privatization was regarded as one of the main instrument of such a restructuring. In Poland, however, despite the "shock therapy" applied at the very start of the reforms, privatization had rather slow pace.

First, the authors of the reform program were aware of a trade-off between the speed and quality of transformation processes in the enterprise sector. They believed that lower speed resulting from careful preparation of privatization deals (both in the technical and social dimensions) is much more important than massive and rapid formal change of owners.

Second, the gradual character of Polish privatization also reflected a choice made in the discussion of what should come first: privatization (which would create demand for further reforms)[1] or regulation and institutional constraints (in order to create a framework for actors' behavior and prevent tunneling).[2] The gradualism reflected a choice in favor of the latter solution. It was believed that these regulation and institutional constraints would force – to a greater or lesser extent – effective behavior of all the enterprises, regardless their ownership structure, thus making ownership de-etatization less urgent, although still necessary.

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[1] See Frydman, Rapaczynski (1994); Boycko, Schleifer, Vishny (1995).
[2] For example, see Murrell and Wang (1993).

Third, the pace of privatization was uneven and differed substantially depending on the industry, size, organizational structure and profitability of an enterprise. The privatization of small and medium-sized enterprises in manufacturing, trade and construction was usually accomplished relatively quickly. The other pole was represented by the largest enterprises, especially from infrastructural sectors, mining and metallurgy as much more complicated cases in technical and social terms. Obstacles of a political nature started to appear as well (i.e., powerful interest groups which defended the *status quo* and created pressure on the government to slow down privatization). Apart form "re-consolidating" sectoral programs adapted in mid-90s, the 1993 Law on the Ownership Transformation of Certain SOEs of Special Importance for the National Economy was passed, which in fact excluded a large number of enterprises from the privatization process. Additionally, the 1996 Privatization Law in practice lifted the obligation to privatize commercialized state-owned enterprises. As a result, privatization was completed only in the case of 66 per cent of state-owned enterprises and estimated value of the assets that are still in the state hands is as high as EUR33 billion (Błaszczyk, 2005), and in 2006, state-controlled firms still produced about 25 per cent of the GDP (EBRD, 2006).

Thus, a quite significant state-controlled sector still exists in Poland, which consists of two major types of companies. The first type is state-owned enterprises that operate under the 1981 Law on State-Owned Enterprises. The second type is corporatized but not privatized SOEs in which the state controls 100 per cent of shares (Polish acronym JSSP). Initially, JSSPs were intended to be a transition entity between a SOE and a private company (with this stage lasting no longer than two years). However in practice for every third enterprise being corporatized, ownership transformation stopped at this stage indefinitely – due to mainly clientelist and political reasons (Kochanowicz, Kozarzewski, Woodward, 2005).

Previous analyses show that, despite creation of market environment and rather hard budget constraints (with the exception of some sectors), the state-controlled part of the enterprise sector in Poland is still much less competitive and efficient than the private sector of the economy. State-controlled enterprises are still governed by internal actors and interest groups that had formed before the transformation began (Kozarzewski, 2003b). On the other hand, the state does not perform well its ownership functions, among others, due to the perpetual conflict of his owner and seller functions. Besides, the still existing large state-controlled sector contributed to emergence of the special interests groups which extract rent from the "intermediate," unreformed state of this sector. They are called *early winners* or a *transfer class* (Hellman, 1998; Staniszkis, 2005) and are not interested in continuation and consolidation of the reform process (Kozarzewski, Woodward, 2006).

It should be noted however that our knowledge about Polish state-controlled sector is far from satisfactory. In the 90s, there were sporadic studies on JSSPs and owner's functions of the state; SOEs in fact have not been studied from the early 90s. This gap is being filled in the framework of the research project "Privatization, Systemic Reforms and the Evolution of the Enterprise Sector in Poland: An Assessment of Fifteen Years' Experience" financed by the Ministry of Education and Science. The paper shows the first results of this project related to corporate governance in state-controlled companies. It presents analysis of both the legal background for corporate governance in state-controlled sector and the empirical evidence from the survey of 102 SOEs and JSSPs. The survey included interviews with top managers of the firms and collecting financial data since 1999. The analysis of the survey results presented in this paper covers formation of the real structures of power and control within the companies, their ability to meet the challenges of the market environment by formulating and

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implementing efficient restructuring strategies, and identification of major factors that influence the observed results. The paper focuses on corporate governance problems mainly at an enterprise level; external aspects of corporate governance of the state-controlled sector, such as the policy of the Treasury towards the state property, are the subject of a separate research.

2. LEGAL BACKGROUND FOR CORPORATE GOVERNANCE IN THE STATE-CONTROLLED SECTOR[3]

There is no unified legal background for the state-controlled sector in Poland. The Law on State-owned Enterprises and the Law on Employee Self-management at State-owned Enterprises, both passed on September 25, 1981, regulate functioning of the SOEs. JSSPs, as being joint sock companies (JSC), or more seldom limited liability companies (LLC), are subject to the Company Code passed on September 15, 2000 which replaced the Commercial Code adopted in 1934. Nevertheless, these acts envisage quite similar corporate structure of both types of enterprises. Both SOEs and JSSPs (and other companies as well) must have three bodies, the first being in charge of day-to-day management, the second dealing with strategic decisions, and the third being responsible for supervision. However, the latter body is not obligatory in small LLCs.

In the case of JSCs and LLCs, it means that Poland has introduced the so-called Continental, two-tier corporate governance model which is characterized by existence of a separate supervisory body and thus control functions of the corporate governance structure at a company level are being additionally strengthened.

Pragmatically speaking, the Continental model was more suitable for Poland (as well as other post-Communist countries) than the one-tier Anglo-Saxon model one for the following three reasons.

First, the influence of external control (in the form of commodity, financial, take-over and other markets) did not exist or was not sufficiently effective. In such conditions, the efficient functioning of internal supervision was of fundamental importance.

Second, the investment potential of the Polish population was weak; therefore the main sources of capital had to be looked for elsewhere. The Continental model assumed the significant role of a strategic investor, in Polish circumstances – most likely foreign (and, later, also domestic industrial and institutional).

Third, both the managerial skills and technical assets of Polish enterprises were archaic and not adapted to the new challenges of the emerging market environment. Strategic investors, especially foreign ones, were able to bring to a company not only capital, but also a new culture of management, of company behavior towards its environment, new technology etc. Besides, the entry of outsiders would help to overcome the old system of interests, relationships and behavior inherited by a company from its Communist past.

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[3] The OECD definition of corporate governance is used: the system by which business corporations are directed and controlled (OECD, 1999). The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs.

In the case of JSSPs, however, most of these advantages had rather the character of more distant possibilities because the state still retained its control as an owner. Nevertheless, it was believed that introducing to these companies the same principles of corporate governance as in the case of private companies, would substantially improve their functioning on the market during the transitory stage and facilitate their privatization in future.

It should be noted, that the control of the state is not the only specificity of the corporate governance in JSSPs *vis-à-vis* private companies. The peculiarity of the Polish legal system is that the main vehicle for representation of stakeholder interests is privatisation legislation, rather than regulations affecting the enterprise sector in general. Thus, there are important differences in the corporate governance regime depending on whether an enterprise originated in the state sector or the *de novo* private sector – a situation which is, to our knowledge, not found in any other European country. Privatisation legislation introduces legal support for insider stakeholder interests in corporate governance bodies:

- after transforming a SOE to a JSSP, employees have a right to appoint 40 per cent of members of the supervisory board as long as the Treasury remains the sole shareholder;

- in JSSPs (and companies privatized through commercialization) employing more than 500 persons, employees elect one member of the Executive Board. This provision is very unclear. For example, it is not known for what period after privatisation employees have such a right.

Notwithstanding formal similarities, corporate governance regime in SOEs is quite different. It has been formed in the times when attempts to reform the Communist economy were being made and when employee self-management, operational autonomy and financial self-dependence of SOEs were regarded as a remedy against the main diseases of the centrally-planned economy. In 1981, a principle of the "Three S" have been adopted (self-management, self-dependence, and self-financing) that introduced a peculiar corporate governance regime for SOEs which was a mix of employee self-management and a joint-stock company. As many as two employee self-management bodies (general assembly of employees and employee council) became the statutory bodies of a SOE. There was also an executive body – director of an enterprise. The functions and competencies of the three SOE bodies resembled the three bodies in two-tier corporate governance model: general assembly of shareholders, supervisory board, and executive board, respectively. It may have implied that enterprises *de facto* belonged to their employees (although they had no responsibility as owners), but in fact the decision-makers were only trying to construct motivation system that would increase the micro-rationality of SOEs and would incline employees to work more efficiently (Stypułkowski, 1986). Ownership functions were performed by the so-called founding bodies (mainly ministries and local authorities) on a rather limited scale. With minor changes, this system is still functioning in Poland.

There were also special regimes for some categories of SOEs depending on their financial conditions and/or governmental efforts to improve their functioning:

- a SOE may be a subject of a management contract signed between the government and a managing group;

- a SOE may be a subject of receivership;

- an administrative procedure of liquidation may be opened.

In each case, self-management bodies are disbanded, and in the case of receivership, all the enterprise bodies are disbanded.

3. ACTORS OF DECISION-MAKING AT ENTERPRISES

There are several "centers of power" in the state-controlled companies, each having its own specificity according to formal functions and the place that it has in the authority structure of a firm. Responses of managers in the survey show that in this respect situation in SOEs and JSSPs is quite similar (Table 1). The most influential is the executive segment of corporate governance structure: executive bodies and especially CEOs.[4] In fact, they do not control only one important sphere: their own hiring and dismissal which is in the scope of responsibility of the state owner. There are some differences, though: in SOEs, founding bodies have the strongest impact on hiring and dismissal of directors (although employee council also has the right to do that), while in JSSPs it is done through decisions of a supervisory board. The character of the impact of employee council on the most important decisions shows its somewhat dual identity as a body that performs both supervisory functions and represents interests of the employees. Maybe that's why in practice the decision-making and supervisory functions of this body are a little weaker than of its counterpart in JSSPs (supervisory board). At the same time the latter, being in theory obliged to implement the state owner's policy at a company, seems to a large extent autonomous in its decisions.

It seems that the role of the state in decision making processes is somewhat stronger in SOEs than JSSPs – which is caused both by legal regulations and the way the division of power and functions has formed at the companies. There are two main channels through which the state can exert influence the enterprises in question: personnel policy towards top managers and taking part in most important decisions of a company. In SOEs, the state prefers the first channel, whereas in JSSPs it rather uses both of them. But both in SOEs and JSSPs, the role of these two channels is very important: in more than 60 per cent of firms, the role of the state representatives in undertaking most important decisions is perceived by respondents as very important or even decisive. In more than 80 per cent of SOEs and nearly 70 per cent of JSSPs, the respondents see very important or decisive role of the Treasury in CEO hiring and dismissals.

An important role of trade unions in decision-making processes should also be noted, especially in representing and defending employees' interests. This makes them a powerful player on the corporate governance scene of a firm.

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[4] It should be noted however that the respondents, being top managers of the surveyed firms, could exaggerate their role on the corporate scene (Kozarzewski, 2000).

In the group of SOEs, there are visible differences between "classical" SOEs and those subject to special procedures (management contracts, receivership, or liquidation). In the latter case, all the still existing actors seem to exert more influence on decision-making which may be caused by their increased activity in an extraordinary situation. One can also see visible shift of "centers of power" from executives towards the state and trade unions. The state becomes more active in the spheres of key importance such as strategic decisions, innovations, and personnel policy, whereas trade unions increase their influence in employee-related matters.

The level of perceived influence of the main players of an enterprise's corporate scene depends on a number of factors, e.g., size of enterprise and its financial results.

Table 1. Average perceived impact of the main players in decision-making processes[a]

Players	Average impact	Day-to-day operations	The most important decisions	Innovations	Hiring and dismissal of the CEO	Hiring and dismissal of non-managerial employees	Wages policy	Personnel policy	Employee-related issues
					Type of decisions				
					SOEs				
General Director	3.9	4.3	4.3	4.1	1.4	4.5	4.3	4.6	4.0
Managing body as a whole	3.8	4.1	4.1	4.2	1.6	4.1	4.2	4.0	4.0
Chairman of the employee council	2.5	2.8	3.0	2.6	2.5	2.1	2.4	1.9	2.8
Employee council as a whole	2.8	2.5	3.4	2.8	3.1	2.1	2.7	2.4	3.3
General assembly of employees	2.2	2.0	2.9	2.1	2.2	1.9	2.2	1.5	2.8
Trade unions	2.5	2.2	2.4	2.1	1.5	2.9	3.1	1.9	3.7
Ministry of the Treasury	1.5	1.2	2.4	1.3	2.8	1.0	1.3	1.2	1.0
Founding body	2.4	1.9	3.7	2.1	4.4	1.7	2.1	1.5	1.6
					JSSPs				
CEO	3.9	4.4	4.3	3.9	1.4	4.3	4.1	4.5	3.9
Managing board as a whole	4.0	4.5	4.4	4.1	1.7	4.3	4.3	4.4	4.1
Chairman of the supervisory board	2.3	2.7	3.0	2.1	3.5	1.5	2.1	1.5	1.7
Supervisory board as a whole	2.7	2.7	3.6	2.5	4.4	1.8	2.5	1.8	2.0
General assembly of shareholders	2.3	2.4	3.7	2.4	3.9	1.1	1.9	1.3	1.5
Trade unions	2.4	2.0	2.0	1.7	1.9	2.8	3.1	1.7	3.6
Ministry of the Treasury	2.0	2.2	3.5	2.1	3.3	1.1	1.8	1.0	1.3
Body that acts on behalf of the state owner	2.2	2.4	3.6	2.3	3.6	1.1	2.0	1.1	1.3

[a] On a scale from 1 – no impact to 5 – exclusive impact.
Source: Own calculations.

In larger firms, the importance of collective decisions is growing; additionally, in large SOEs the role of trade unions is more important than in smaller ones.

The interdependence between the decision-masking structure and the firms' financial results is more complicated and ambiguous.

In SOEs, when economic situation worsens, executive bodies start to act more actively, especially in the field of strategic decisions, innovations, personnel and wage policy, etc. Influence of the general assembly of employees is also rising. At the same time the role of the employee council and trade unions is visibly decreasing, especially in employee-related issues. It may mean that in the situation when the destiny of the whole firm is put at risk, the most important task of the main actors becomes to save it, so particular employees' interests lose their importance. It is worth noting that in such a situation, the founding body remains as a rule passive or even withdraws itself from taking part in strategic decision-making.

The processes in JSSPs look quite different. Basically, there is positive correlation between financial results and the level of activity of the managing board, supervisory board, and the representative of the state owner. The role of trade unions remains the same or even slightly weakens when firms achieve better results. It should be stressed that in successful JSSP both the executive board and the Treasury representative pay special attention to innovations which nowadays are the key factor for successful development of a firm. It may suggest that the increased impact of the executive board and representative of the owner is one of the factors that positively influence performance of this category of companies.

4. STRATEGIES OF ADAPTATION AND DEVELOPMENT

Corporate governance is an instrument that has to ensure effective management of a firm in the interests of its owners. Simplifying the problem and not paying attention to some sporadic exceptions, one can say that in the framework of the Continental model owners interests are realized through development of the enterprise and its ability to generate revenues in the long run. Rapid changes that undergo a transition economy and the fact that the state-controlled sector was accustomed to another economic reality (of the last years of Communism) force urgent changes in enterprises' behavior, elaboration and implementation efficient strategies and tactics of adaptation and development. It means the necessity of not only changes in management, but also of deep restructuring of the whole enterprise that would lead to improvement of its economic performance and adoption of efficient strategies of market behavior. It can be argued that emerging corporate governance mechanisms have very important influence on the outcome of these processes.

Table 2. The main goals of the enterprises (% of enterprises that gave such an answer)

Main goals	Types of enterprises				
	SOEs				JSSPs
	Total	„Classical"[a]	Management contracts[a]	Receivership, liquidation[a]	
Restructuring of employment	39	43	44	33	38
Increase in production of goods and services	29	33	11	33	16
Change of products or services structure	15	19	11	8	13
Assets modernization	37	43	44	17	33
Introduction of innovations and new technologies	15	19	–	17	13
Expansion of R&D activities	2	5	–	8	2
Improvement of skills and the level of knowledge of the employees	7	5	–	17	8
Improvement of quality of goods and services	17	10	11	33	36
Increase in productivity	34	43	33	25	31

Main goals	Types of enterprises				
	SOEs				JSSPs
	Total	„Classi-cal"[a]	Mana-gement cont-racts[a]	Recei-vership, liquida-tion[a]	JSSPs
Expansion on the domestic market	12	10	22	8	11
Increase of exports	10	10	22	–	18
Keeping the present place on the market	17	19	11	17	18
Introducing new distribution channels	29	29	44	17	21
Attracting a foreign investor	20	10	44	17	20

Columns sum up to more than 100 per cent because each respondent could choose up to three answers.
[a] Because of small number of SOEs of each type, these figures should be treated only as a rough estimation.
Source: Own calculations.

Managers from all the surveyed enterprises claim that they have a development strategy for the firm. Among the main three goals of such a strategy, most often restructuring of employment and assets modernization were mentioned. In the SOEs, rise in profitability was also mentioned, and in the JSSPs the third most often mentioned goal was improvement in quality of goods and services. It should be noted that many respondents also mentioned other goals of their strategies, e.g., aimed at increase in production, sales, and attracting a foreign investor. Besides, despite all the differences between the respondents' answers in SOEs and JSSPs, it is clearly seen that the enterprises focused their efforts mainly on production, costs reduction and sales, neglecting the factors that could really ensure the long-term competitiveness of the enterprises, such as innovativeness which could manifest itself in, e.g., R&D activities and training of the personnel. These goals probably were obscured by the pressure of short-term urgent problems. Finally, there is a special group of enterprises that shows quite different pattern of strategic goal-setting. These are SOEs subject to management contracts where virtually all the goals are of a short-term nature, aimed at short-term improvement of the firms' functioning, as if the main task of the managers is just to prepare the enterprise to some next stage of development (e.g., which may have started after privatization).

Table 3. Restructuring measures (%)

Restructuring measures	Stage of implementation							
	No answer		Are planned		Are being implemented		Are completed	
	SOEs	JSSPs	SOEs	JSSPs	SOEs	JSSPs	SOEs	JSSPs
Reduction of employment	15	17	5	5	42	48	39	30
Mass lay-offs	61	62	5	–	–	2	34	37
Partial change of personnel	51	38	7	13	29	30	12	18
Hiring new managers	63	58	20	17	2	12	15	13
Introducing costs monitoring	37	17	7	5	49	70	7	8
Unit cost reduction	29	23	10	5	56	70	5	2
Changes in workflow	32	23	2	10	61	62	5	5
Changes in remuneration system	42	35	20	27	22	13	17	25
Improvement of working discipline	37	32	2	8	54	53	7	7
Limiting social functions of the firm	46	43	10	10	22	28	22	18
Sale and/or leasing the assets	24	25	20	12	44	57	12	7
Modernization investments	29	23	22	28	46	47	2	2
Introducing new technologies	49	38	29	35	15	25	7	2
Limiting the line of goods/services	78	70	–	5	10	7	12	18
Improving quality of goods/services	27	25	2	5	68	63	2	7
Targeting of goods/services	39	45	10	13	46	42	5	–

Restructuring measures	Stage of implementation							
	No answer		Are planned		Are being implemented		Are completed	
	SOEs	JSSPs	SOEs	JSSPs	SOEs	JSSPs	SOEs	JSSPs
Preparation of more attractive offer of goods/services	29	43	5	13	66	43	–	–
Introduction of more attractive terms of sale	44	38	2	12	49	50	5	–
Introduction of new goods/services	46	42	29	20	20	33	5	5
Improvement of information systems	37	28	15	22	37	40	12	10
Improvement of the system of debt recovery	34	33	2	–	56	57	7	10
Modernization of a quality control system	44	37	10	17	39	42	7	5
Changes in employee evaluation system	61	45	7	30	22	13	10	12
Increasing investments to R&D	71	57	22	30	2	10	5	3
Development of promotion	37	35	10	13	54	50	–	2

The rows sum up to 100 per cent separately for SOEs and JSSPs.
Source: Own calculations.

The data in Table 3 show that already completed restructuring measures included first of all job cuts. At present moment, the enterprises focus on improvement of workflow and quality of offered goods/services. Additionally, SOEs are working on improvement their sales strategies and JSSPs are improving costs control. As a rule, modernization activities are still only being planned. SOEs pay a shade more attention to introducing new products while JSSPs stake rather on innovations.

On the basis of the data on restructuring, new variables that describe the progress in restructuring were created. They may obtain the following values: 0 – no answer (which is interpreted as lack of even plans to restructure this sphere); 1 – restructuring is planned; 3 – restructuring is being implemented; and 4 – restructuring is completed. Average level of restructuring (in all the 25 types of measures) is slightly higher for JSSPs (1.21) than SOEs (1.14). However, within the SOEs group its value is highly differentiated being the lowest for firms subject to management contracts (0.91), highest for the "classical" SOEs, and receivership and liquidation cases being in the middle (1.06).

Factor analysis[5] performed on the 25 restructuring variables showed that 5 main restructuring factors existed:

- Improvement in enterprise's finances, product quality and workflow;

- Improvement in sales and marketing;

- A bunch of pro-development measures (R&D expansion, changes in employee evaluation system, hiring new managers, increase in line of goods/services specialization);

- Employee-related measures (changes in employment and remuneration, limiting the social functions of the enterprise);

- Focusing attention only on mass lay-offs.

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[5] Extraction method: Principal Component Analysis; rotation method: Varimax with Kaiser Normalization; total variance explained: 63.6 per cent.

Factor analysis emphasized the differences between various groups of enterprises. Generally speaking, SOEs (especially those "classical" ones) demonstrated more inadequate than JSSPs, shallow attitude towards restructuring, very often limited to problems of sales and marketing. Additionally, "classical" SOEs paid more attention to employee-related issues. The worst case was enterprises in the subject of receivership and in the state of liquidation which were focused almost exclusively on mass lay-offs. In turn, JSSP paid more attention to pro-development measures and improvement in enterprises' finance, product quality and workflow (Table 4).

Analysis of the restructuring measures undertaken as well as factor analysis show that quite often JSSPs not only restructure more actively than SOEs, but the set of restructuring measures seems to be more comprehensive and coherent – combining cost reduction measures with pro-development activities, not limiting their efforts to development of sales and the use of simple reserves such as employment reduction.

It should be noted however that SOEs and JSSPs still have a lot in common. Both groups of enterprises are rather refraining from conducting really deep and comprehensive strategic restructuring. Very seldom they implement or even plan such measures as hiring new managers, implementation of new technologies, increasing R&D expenditures, improvements in promotion of their products, etc. The situation seems somewhat better at JSSPs than SOEs, but JSSPs' efforts in restructuring still seem less than satisfactory and unable to contribute to substantial improvement in their competitiveness. So far, in both groups of firms, restructuring does not lead to sustainable improvement of companies' functioning which can be seen in the dynamics of their economic performance (Antczak, 2006; Nawrot, 2006). Some improvement in SOEs which were subject to special regimes and regulations, took place almost exquisitely due to radical downsizing measures.

Table 4. Average factor scores for restructuring measures

Factors	Type of enterprises				
	SOEs				JSSPs
	Total	„Classical"[a]	Manage-ment contracts[a]	Receiver-ship, liquidation[a]	
Finances, product quality and workflow	-0.149	0.030	-0.654	-0.056	0.101
Sales and marketing	0.200	0.345	0.154	-0.176	-0.110
Pro-development measures	-0.148	-0.181	-0.279	-0.067	0.121
Employee-related measures	-0.013	0.160	0.038	-0.210	-0.020
Mass lay-offs	0.002	0.012	-0.283	0.367	-0.036

[a] Because of small number of SOEs of each type, these figures should be treated only as a rough estimation.
Source: Own calculations.

The question is, what lies behind insufficient restructuring activities of the state-controlled enterprises and why some restructuring nevertheless takes place. The existing data do not allow giving unequivocal answer. It can be assumed that the main factors that hinder restructuring are of both objective (e.g., lack of funds) and subjective nature (first of all lack of an efficient owner, lack of appropriate qualifications and knowledge, resistance of employees and trade-unions that perceive the changes as a threat to their interests).

Unfortunately, only partial statistical verification of these hypotheses is possible. Correlation analysis of restructuring progress and influence of main players on decision-making showed

statistically significant results, albeit almost impossible to interpret, with domination of negative correlation coefficients. For example, considerable domination of one player over the rest was negatively correlated with restructuring progress. Among the main "obstacles" for restructuring one could find not only trade unions (which is quite obvious), but also a representative of the state owner and even some bodies of the enterprise. Positive correlation coefficients appeared only sporadically which made impossible to pick out factors that might have positive impact on restructuring.

There is no clear statistical corroboration of a negative or positive impact of economic performance of the enterprises on their restructuring. Few results of statistical analysis are statistically significant, and they give quite ambivalent picture. It seems that economic performance (good or bad) may sometimes motivate firms for introducing changes, but sometimes may de-motivate them. Quite often we saw U-shaped and inverted U-shaped correlations, when restructuring could be influenced (motivated or de-motivated) by extreme financial results – very good or very bad. For example, correlation between gross sales profitability in 1999 (the first year of observations) and restructuring progress was U-shaped in the case of JSSPs (i.e., restructuring progress index was higher in most profitable and less profitable companies) and inverted U-shaped in the case of SOEs (i.e., firms with average profitability were most active). Very similar in the latter group of enterprises were interdependencies between restructuring progress and labor productivity. At the same time in JSSPs, there was linear correlation between these two variables (Kozarzewski, 2007). It means that further research is needed which would verify existing hypotheses and probably show some new factors that affect decision-making in goal setting and restructuring. It seems that these factors should be looked for not only among economic and financial indicators and indices, but also in the "subjective" dimension, i.e., attitudes and behavior of the main actors (both insiders and outsiders) involved.

5. CONCLUSIONS

Corporate governance in the state-controlled sector is a sophisticated process that reflects an interplay between various interest groups that often have not fully concurrent goals. This process is to a large extent dysfunctional which comes mainly from uncompleted property rights, especially in SOEs, where mechanisms of ownership control are very weak, much weaker, than even in JSSPs that are also fully state-controlled. The role of the state as an owner in both groups of companies is inefficient and distorted. Despite very strong impact on decision-making processes at enterprises and decisive role in appointing top managers, the stated proved not to be able to ensure their development and improvement of economic performance. The research once again corroborates the well-known thesis that the state is not a good owner, its decisions being inefficient and politicized, and reflecting interests of rent-seeking groups.

One of the main weaknesses of corporate governance mechanisms in state-controlled enterprises is their limited ability to initiate and conduct deep and coherent restructuring. Most of the restructuring measures – undertaken or even planned – have partial and/or defensive character and rather will not ensure sustainable development of the enterprises, improvement of their economic performance and competitiveness.

The research shows that corporate governance in JSSPs may be a little more efficient in letting the firms to survive and develop in new market conditions, than that of SOEs (especially being subject to special regimes and regulations), despite all the faults caused by incomplete property rights and petrifaction of their formally intermediate state. In JSSPs, a kind of would-be Continental corporate governance model have been introduced, which, at least theoretically, suits better for enterprises in transition economies, and where in practice property rights are better defined than in SOEs (with all reservations concerning the fact that the state cannot be a really good owner). In turn, in this respect SOEs represent an unhappy attempt to create a corporate governance structure that imitates joint-stock companies, but is dominated by insiders who have a lot of independence in their decisions (almost as owners), but no appropriate financial responsibility, and with very weak mechanisms that would defend property rights of the state owner. In fact, JSSPs function a little less dysfunctionally than SOEs, and are a little more efficient in restructuring and keeping companies alive (especially when financial results are weak).

Although both in SOEs and JSSPs efforts aimed at improvement of the firms' functioning are seen, only in the latter group they already lead to some visible results. First, certain changes in corporate governance regime start to be seen in the form of higher activity and efficiency of activities of the companies' bodies and the state owner's representatives. Second, JSSPs are more active, than SOEs, in restructuring. Moreover, restructuring in these companies seems often to be deeper and more coherent, not refrained to sales and employment optimization. Third, there is some evidence that these activities lead to improvement of economic performance of the companies.

One of the main faults of corporate governance regimes in SOEs is very low efficiency of special solutions which had to improve economic performance of enterprises, such as management contracts and receivership. Unfortunately, the research shows that very often such solutions aggravate dysfunctionality of SOEs, which are characterized by lower, than average, capacity to formulate strategic goals and to plan and implement appropriate restructuring measures. If ever some positive changes were introduced, they were mostly shallow and used only the simplest reserves in the form of radical costs cuts.

It can be argued that comparing to SOEs, JSSPs give their actors more possibilities to learn how to manage a firm in market environment. JSSPs also make possible for the actors to become familiar with corporate governance mechanisms, division of roles and functions among a company's bodies and other players. It may facilitate creation of efficient corporate governance structures and relationships after privatization of these companies. In this respect SOEs might be in worse situation, unless they are sold to an experienced outside owner who would ensure fast transfer of knowledge on efficient corporate governance and management solutions. Nevertheless, the JSSP stage of an enterprise should be as short as possible and be used for preparation of its privatization.

Therefore, from the perspective of overcoming the "Communist past" legacy at enterprises in the state-controlled sector, the studied SOEs are visibly lagging behind and JSSP form of an enterprise is a step forward – provided that it is a transitory, and not ultimate solution. JSSP in their turn are lagging behind (and the gap is very wide) privatized enterprises, especially acquired by foreign strategic investors, because in these companies, as other researches show, the most efficient corporate governance regime has been formed.[6] But, although corporate

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[6] Overview of these studies see in: Kozarzewski (2003a); Kozarzewski (2006a).

governance system of JSSPs seems to be somewhat more coherent and better functioning than that of SOEs, there is no reason to keep JSSPs in that intermediate state and refrain from their privatization. One must be aware that both SOEs and JSSPs represent the declining and highly disfunctional sector of Polish economy. JSSPs are rather a "lesser evil" than SOEs and they must be only a transitional stage towards full privatization of enterprises. Thus, contrary to the current policy of the Polish government, privatization should be accelerated and include the highest possible number of SOEs and virtually all the JSSPs.

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INTERNATIONAL TRADE IN SERVICES AND THE IMPACT OF LIBERALIZATION ON TOURISM IN CEE COUNTRIES

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1. INTRODUCTION

Modern economic systems are dominated by the tertiary sector. Shares of it in the value added and employment is strong confirmation of this thesis. One can say that the more developed country the bigger role of services in GDP (World Bank, 2005). Simultaneously international trade is growing, and gradually faces less constrains. But liberalization measures introduced by GATT in 1947 were aimed only at merchandise trade. It was not a sufficient solution considering widening subject of international trade and willingness to set up solid legal framework for cross border trade liberalization. In spite of such fact GATT signatories, on the basis on *Final Act of Uruguay Round*, created the World Trade Organization (WTO) in 1995.

Legal system of WTO agreements is quite complicated, because apart from *WTO Agreement* (a specific „constitution" of this organization) is comprised of 21 additional treaties, 17 of which are compulsory. One of them is *General Agreement on Trade in Services* (GATS). It is first and only one multilateral and common existing biding agreement aimed at removing barriers to trade in services.

Because tourism is very important element of tertiary sector GATS regulations are applied also to this type of services. Simultaneously importance of tourism for some of Central and East European (CEE) countries economies is growing. Linking these facts shows reasons why their governments should be interested in WTO negotiations. They can both benefit from additional income and employment and insist on considering suggestions aimed at promoting sustainable tourism linked with environmental and socio-economic facets .

The paper is aimed at presenting main legal framework of trade in services, which comes from GATS principles. Additionally some stylised facts on the role of tourism in national economy of CEE countries were presented. The third part presents GATS commitments in tourism. Moreover the discussion between supporters and opponents of GATS is presented. Basing on this data author formulated some suggestions which can lead to develop this field of international economic relationships while promoting sustainable tourism.

2. CORE LEGAL RULES OF GATS

The set of GATS general principles applies to all measures affecting international trade in all services. According to art. I. 2 of GATS trade in services is defined by means of its mode of supply. There are four modes of services supply:

1. Service is supplied form one country to another (not requiring the physical movements of supplier or consumer) – cross – border supply;

2. Service is supplied in the territory of one country for foreign buyer – consumption abroad;

3. Service is sold in the territory of one country by foreign affiliates – commercial presence;

4. By a service supplier from one country through temporary movement of his personnel in the territory of any other country – presence of natural persons.

Similarly to GATT, the main idea of GATS is willingness to eliminate discrimination of foreign suppliers or their products. Legal norms aimed at achieving these targets are widely spread in the body of GATS, but the most important can be easily defined :

- Most – Favoured Nation treatment (art. II. 1);

- Market Access clause (art. XVI);

- National Treatment clause (art. XVII. 1);

- General Exceptions (art. XIV);

- Transparency rules (art. III).

Most – Favoured Nation treatment (MFN) refers to the suppliers of services which are prior to enter market of other GATS member. If any country apply special preferences of any kind for foreign suppliers (or their services) they will be automatically applied on basis of MFN to all WTO members. Referring to the tertiary sector MFN is immediate and unconditional, which means that all countries joining WTO have to respect it. Unfortunately contrary to trade in goods it can be lifted[1]. This happen if country prior to joining WTO declares that MFN will not be applied to chosen services subsectors. Creating list of exceptions was requirement of WTO membership. At the end of Uruguay Round over 60 countries created such lists. Mostly they refer to the audiovisual, financial and transportation services (Hoekman, Kostecki, 2001). According to GATS norms MFN exclusions can be set for the period not exceeding 10 years, and are subject to negotiations during future trade liberalization negotiations. Despite of this most of countries declared MFN exceptions to last longer than 10 years or even set up them for infinity.

Article XVI of GATS lists a range of measures restrictive of market access (mostly quotas) that a WTO member cannot maintain or adopt unless specified in its schedule of specific commitments. These measures include restrictions on (a) number of service suppliers

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[1] Art. II. 2 of GATS.

allowed, (b) value of transactions or assets, (c) total quantity of services output, (d) number of natural persons that may be employed, (e) type of legal entity through which a services supplier is permitted to supply a service (for example, in banking, branches versus subsidiaries), and (e) participation of foreign capital in terms of limits on foreign equity or on the absolute value of foreign investment. Adlung at al. (2002) were right, that with the exception of (e), the measures covered by Article XVI all take the form of quantitative restrictions. To a degree, article XVI is the equivalent of GATT article XI, which prohibits the use of quotas. Specific commitments apply only to services sectors listed by members of WTO, subject to whatever qualifications, conditions, and limitations are maintained. Since commitments are scheduled by mode of supply as well as by sector, these exceptions may apply either across all modes of supply or for a specific mode.

General prohibition of maintaining measures listed by article XVI of GATS has to allow foreign suppliers and their services to enter domestic market of other WTO member. After successful market access national treatment clause is applied, which enforces treating any foreign WTO member not worse than domestic supplier and services. Similarly to MFN, national treatment rule can be lifted. However according to GATS regulations, way of doing so is different. MFN is generally binding clause, the only exception is listed on the special list. National treatment is applied only to chosen subsectors if case of government specific commitments.

One can say that market access and national treatment are complementary. In both cases applying them is not generally binding clause, but recommended detailed commitment. When entering WTO every government has to list services subsectors that are subject or intended to limited market access and list of services that are (or not) subject to national treatment.

Article XIV of GATS allows WTO members maintain measures that state against above mentioned general rules, especially MFN and national treatment on condition that is necessary for public needs. This kind of exception could no be treated as arbitrary or unexplained discrimination or hidden constrain to trade in services. In order to avoid it, protecting of public needs is limited to security, health of human and animals, crime protection and chosen fiscal targets.

Finally, transparency, which is the principle through which relationships based on multilateral trade liberalization, might be built. The main obligations require members to be prompt in their publication and notification procedures. They have the obligation to inform the administrative body for the GATS, the Council for Trade in Services, of the introduction of new laws, regulations or administrative procedures.

3. TOURISM IN ECONOMY OF CEE COUNTRIES

Reliable statistical data of services sector behavior is very complicated. Even defining term of „services" is problematic, because it can refer both to type of economic activity and product supplied by enterprise. According to this one has to notify differences in types of classification and data collected on their basis. In case of tourism additional obstacle for analysis is its complexity, which is result of interactions between manufacturing industry and tourism or multilateral interactions between different types of services.

International standards for tourism statistics are relatively new (first recommendations for researchers were set up in 1991 during International Conference on Travel and Tourism Statistics in organized by World Tourism Organization) and are still subject to improvements. Presently globally binding are UN standards from *Tourism Satellite Account: Recommended Methodological Framework* (TSA:RMF)[2] published in 2001 r. This is a set of ideas which refers to classification used in the System of National Accounts (SNA) from 1993.

According to par. 2.1. of TSA:RMF "tourism" comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited. The term "activity of persons" takes its general meaning as a specified individual pursuit and not as an abbreviated term for "productive economic activity", as it is used, for instance, in ISIC. In tourism, the "activities of persons" refer to the pursuits of those individuals who qualify as "visitors". The phrase "usual environment" is introduced to exclude from the concept of "visitor" persons commuting every day between their home and place of work or study, or other places frequently visited.

TSA:RMF is strictly linked with SNA 1993, which means that both systems recommend using reference classifications of products and types of economic activity. These classifications are respectably Central Product Classification (CPC) ver. 1 and International Standard Industry Classification Rev. 3 (ISIC). According to the idea derived from SNA 1993 defining type of economic activity requires list of its characteristic products. Using this method TSA:RMF defines set of characteristic tourism products. Article 3.17 of TSA:RMF says: „products which, in the absence of visitors, in most countries would probably cease to exist in meaningful quantity or for which the level of consumption would be significantly reduced and for which it seems possible to obtain statistical information". Once the set of tourism characteristic products is defined, the discussion on tourism characteristic activities may be closed, since they can be identified as productive activities that produce a principal output which has been identified as characteristic of tourism.

Apart from general definitions, TSA:RMF, referring to CPC and ISIC codes precisely lists products and types of economic activities characteristic for tourism together with corresponding classification symbols. Simplified list is presented in table 1.

Table 1. List of tourism characteristic products and tourism characteristic activities

Tourism Characteristic Products	Tourism Characteristic Activities
accommodation services	hotels and similar
	second home ownership (imputed)
food – and beverage – serving services	restaurant and similar
passenger transport services	railway, road, water and air passenger transport services
	transport supporting services
	transport equipment rental
travel agency, tour operator and tourist guide services	travel agencies and similar
cultural services	cultural services
recreation and other entertainment service	sporting and other recreational services
miscellaneous tourism services	

Source: TSA:RMF, pp. 87 - 122.

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[2] *Tourism Satellite Account: Recommended Methodological Framework*, WTO/OMT, UNSD, EUROSTAT, OECD, UN document ST/ESA/STAT/SER.F/80.

The concepts of TSA: RMF can be applied to different forms of tourism. Depending upon whether a person is travelling to, from or within a certain country the following forms can be distinguished:

- inbound tourism: involving the non-residents received by a destination country from the point of view of that destination;

- outbound tourism: involving residents travelling to another country from the point of view of the country of origin;

- domestic tourism: involving residents of a given country travelling within that country.

Considering aim of this paper, which is to show relationships between tourism and international trade, domestic services should be omitted in the analysis. However this is impossible, because all suppliers offer their services both for residents and foreign customers.

An attempt to asses share of tourism services in the foreign trade requires use of balance of payments data. In this case usually IMF recommendations from *Balance of Payments Manual* (BPM5 – 1993 issue) are applied. Data considering trade in services is part of current account and in order to get more detailed statistical information OECD and Eurostat proposed in 1996 separate *Extended Balance of Payments Services Classification* (EBOPS). Unfortunately, most of countries, publishing current account data on trade in services, reduced information only to 3 subsectors : transportation, traveling and other services. Even in case of publication of wider list items from memorandum items list of EBOPS are not included. This leads to the reduction of data source, because it is impossible to get information from balance of payments according to the list of characteristic tourism products. Problems with comparability of available data suggest using estimation in the form of value of travel expenditure.

Analyzing relationships between international tourism and WTO activity, one has to remember subject of analysis (CEE countries). All Central and East European countries are subject to WTO activity. Some of them are original members which mean that delegations from them took part in the Uruguay Round of GATT, signed its *Final Act* and ratified *WTO Agreement*. Some of them are members who joined after Uruguay Round, so they had to undergo accession process. The last group has only observer status, who has already applied for establishing Working Group that will set up WTO accession procedures and conditions. Information about status of these countries is presented in table 2.

According to real membership, further analysis includes 14 countries. Regarding the rules of TSA:RMF all types of travellers engaged in tourism are described as visitors. But visitors can be distinguished as same-day visitors or tourists (overnight visitors). The most common unit of measure used to quantify the volume of international tourism for statistical purposes is the number of international tourist arrivals. For a proper understanding of this unit, two considerations should be taken into account:

- data refer exclusively to tourists (overnight visitors): a visitor who stays at least one night in a collective or private accommodation in the country visited. Same-day visitors are not included;

- data refer to the number of arrivals and not to the number of persons. The same person who makes several trips to a given country during a given period will be counted as a

new arrival each time, as well as a person who travels through several countries on one trip is counted as a new arrival each time.

Information about international tourist arrivals to CEE countries is presented in table 3.

Table. 2. Formal status of CEE countries in WTO

Country	Status	Status obtained on
Albania	acceding member	8 September 2000
Belarus	observer	27 October 1993
Bosnia and Herzegovina	observer	15 July 1999
Bulgaria	acceding member	1 December 1996
Croatia	acceding member	30 November 2000
Czech Republic	original member	1 January 1995
Estonia	acceding member	13 November 1999
Hungary	original member	1 January 1995
Latvia	acceding member	10 February 1999
Lithuania	acceding member	31 may 2001
Macedonia (FRY)	acceding member	4 April 2003
Moldova	acceding member	26 July 2001
Montenegro	observer	15 February 2005
Poland	original member	1 July 1995
Russian Federation	observer	16 June 1993
Romania	original member	1 January 1995
Serbia	observer	15 February 2005
Slovak Republic	original member	1 January 1995
Slovenia	acceding member	30 July 1995
Ukraine	observer	17 December 1994

Source: www.wto.org.

Table 3. International tourist arrivals by country of destination in CEE (in 1000)

Country of destination	1995	2000	2002	2005
Albania	40	32	36	46
Bulgaria	3466	2785	3433	4837
Croatia	1485	5831	6944	8467
Czech Republic	3381	4666	4579	6336
Estonia	530	1220	1362	1900
Hungary	20690	15600	15800	10048
Latvia	539	509	848	1116
Lithuania	650	1083	1428	1800
Macedonia (FRY)	147	224	123	197
Moldova	32	18	18	23
Poland	19215	17400	13980	15200
Romania	766	867	1041	1430
Slovak Republic	903	1053	1399	1515
Slovenia	732	1090	1302	1555

Source: UNWTO (2006).

According to the data from table 3 the biggest number of tourist arrived to Poland and Hungary. However it has to be notified that in both countries number of them has strongly decreased over the last decade. The most spectacular growth of number of arrivals took place in Croatia, which managed to rise it almost 6 times. In the period 1995 – 2004 smaller increase, but even 3 times, was in Lithuania and Estonia, which were not treated as tourism centers before. The poorest attention was drawn by Macedonia, Albania and Moldavia.

Typical economic analysis of international trade bases on the trade balance, i.e. difference between value of export and import. It is the simplest, but very biased method of comparison across countries. Assuming that two economies have extremely different share in global trade, which can be for example subject to difference in population, and both have surplus in trade it is very hard to say that smaller surplus in one country is evidence of worse position in global trade when compared to the bigger country. According to this in the paper method proposed by Lindner (2005), was used. It bases on the normalised trade balance. Typical trade balance is divided by global trade value (sum of exports and imports). According to such attitude trade balance is normalised between – 1 and 1. Normalised trade balance equals – 1 shows that international trade comprises only an import, while value of 1 proves that international trade comprises only an export. Normalised trade balance allows unbiased comparisons across countries. Detailed information are presented in table 4.

Table 4. Normalised balance of trade in travel services in CEE countries..

Country	1995	2000	2005
Albania	0,82	0,18	0,04
Bulgaria	0,42	0,33	0,30
Croatia	0,52	0,66	0,81
Czech Republic	0,28	0,40	0,32
Estonia	0,60	0,43	0,36
Hungary	0,32	0,39	0,19
Latvia	-0,10	-0,31	-0,26
Lithuania	-0,16	0,21	0,11
Macedonia	-0,11 [a]	0,05	0,17
Moldova	0,00	-0,30	-0,13
Poland	0,40	0,26	0,18
Romania	-0,08	-0,08	0,09
Slovak Republic	0,32	0,19	0,18
Slovenia	0,31	0,31	0,32

Note: data for 1996 is included.
Source: own calculation, based upon WTO database.

Assessing volume of trade in services on the basis of trade balance data is not possible when GATS norms are applied. BPM – 5 recommendations were developed in 1993 while GATS was introduced in 1995, which can to some extent explain their incomparability. Information from trade balance are only estimations of trade in services supplied under mode 1 and 2: cross border supply and foreign consumption, which refers to traveling services. Willingness to find out volume of services supplied in mode 3 requires FATS (*Foreign Affiliates Trade in Services statistics*) introduction. This database is used for collecting data about foreign affiliates for which foreign investor owes more than 50 % of voting power or equity interests. Karsenty (2000) or Kruszka (2005a) proved, that additional data from FATS can sometimes double value of export of services. However FATS system is not introduced in CEE countries. Concerning this there is no possibility to get up to date and full information about international trade in tourism services assessed according to all GATS modes of supply.

Implementing Tourism Satellite Accounts and defining characteristic tourism economic activities allows to assess share of employment and added value of this section of economy. Simultaneously in this way additional, but incomplete data about tourism supply is gathered. Raw statistical information does not allow us to make international comparison, because CEE countries have different demographic and territorial properties. So the presented results are limited to the share of tourism in employment, value added and volume of export of commercial services. Corresponding data is presented in table 5.

Table 5. Direct tourism industry (characteristic tourism activities) as % of national economy variable in CEE countries..

Country	employment		value added		export of services	
	2001	**2005**	**2001**	**2005**	**2001**	**2005**
Albania	2,8	2,9	3,5	3,6	90,8	74,0
Bulgaria	3,1	3,9	3,6	4,5	50,5	56,2
Croatia	12,7	10,0	9,8	8,6	67,6	74,3
Czech Republic	2,5	2,2	2,3	2,1	44,0	43,1
Estonia	4,1	3,0	4,5	3,4	34,0	30,4
Hungary	7,2	5,2	5,2	3,4	62,4	34,8
Latvia	1,0	1,1	1,2	1,3	11,0	16,0
Lithuania	1,4	1,4	1,6	1,6	37,2	30,0
Macedonia	1,3	1,4	1,3	1,5	13,1	18,8
Poland	1,9	1,9	1,9	1,9	25,4	31,2
Romania	2,9	3,1	1,9	1,9	54,7	39,0
Slovak Republic	2,2	2,1	2,3	2,2	20,9	21,2
Slovenia	4,3	4,5	3,2	3,3	19,5	27,7
Average	**3,6**	**3,3**	**3,3**	**3,0**	**40,9**	**38,2**

Note: TSA data for Moldova is not available.
Source: WTTC (2006) and own calculations, based upon WTO database.

Data from table 5 suggests that CEE countries can be divided into four groups. First which contains only Croatia for which tourism has extraordinary size in comparison to the other mentioned countries. Second subset is comprised of Hungary and Estonia, which have relatively big share of tourism in the employment, added value and export of services, but its importance is diminishing. Albania, Bulgaria and Slovenia are third set. Share of tourism is smaller but increasing. And the last group: Czech Republic, Lithuania, Macedonia, Poland Romania, and Slovakia which has relatively modest, but stable share of tourism in economy.

Despite some differences it has to be said that role of tourism in the CEE countries can be assessed by means of two facets. Pondering its share in employment and value added one can say it is an important, but not dominating section of economy. Moreover average share of it is slightly decreasing in CEE countries. On the other hand, tourism accounts for up to 40 per cent of export of commercial services, and this is the biggest component of trade in services. This explains why GATS norms are so important for CEE countries.

4. SPECIFIC COMMITMENTS IN TOURISM

As it was previously mentioned a crucial group of GATS norms are market access and national treatment commitments. Such commitments are not mandatory for WTO members, but each government can implement them in order to benefit from free trade in services. This forces each WTO member to prepare Schedule of Specific Commitments (SSC) which includes its declarations. They can be applied to either all services (horizontal commitments) or chosen subsector.

Declarations can take two extreme forms:

- none – government resigns of any restrictions in trade ;

- unbound – government does not implement any liberalization commitments. However it does not mean introducing trade restrictions, but this is information that in some cases they can be used.

There are also two intermediate types of declarations:
- generally none, but some restrictions can be considered;

- generally unbound, but some liberalization exemptions can be applied.

Schedule of Specific Commitments must contain both market access and national treatment declarations. Remembering that services can be supplied under four modes every country has to submit 8 declarations. Carzaniga (2003) notifies that isolating subsectors generates hybrid system. The more sectors are included in SSC the country is more open for international competition, while longer list of restriction shows unwillingness to take part in global trade. Examination of SSC is time consuming but it is crucial for understanding performance of countries that take part in international trade on the basis of binding WTO rules.

Willing to asses CEE countries commitments in the field of trade in services liberalization one must use SSC. But the analysis of SSC requires precise description of services categories. During negotiations of Uruguay Round statistical classification (with linkage to CPC) was prepared. Unfortunately, "Tourism and Travel Related Services", category 9 of the WTO services classification (so called W/120 list)[3], is distinctly limited in scope. The category is divided unto four subsectors A: hotels and restaurants (including catering);   B: travel agencies and tour operators services;   C: tourist guides services and D: other. Tourism activities which are part of more general services activities, most notably many transport services, but also including certain and recreational, cultural and sporting services, have typically been placed within those general services categories.
Details of SSC in tourism are provided in table 6 and 7.

Table 6. Summary of specific commitments in tourism.

Country	Subsectors of tourism services			
	9.A	**9.B**	**9.C**	**9.D**
Albania	X	X	X	
Bulgaria	X	X		
Croatia	X	X	X	X
Czech Republic	X	X	X	
Estonia	X	X	X	
Hungary	X	X		
Latvia	X	X	X	X
Lithuania	X	X		
Macedonia	X	X	X	
Moldova	X	X	X	X
Poland	X	X		
Romania	X	X		
Slovak Republic	X	X	X	
Slovenia	X	X		
TOTAL	**14**	**14**	**8**	**3**

Source: own calculations.

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[3] See: WTO document MTN.GNS/W/120 (available at WTO internet database).

Table 7. Number of CEE countries by mode of supply tourism services.

Mode of supply	Market Access			National Treatment		
	full	part	no	full	part	no
cross–border supply	4	7	4	4	7	4
consumption abroad	13	1		13	1	
commercial presence	8	6		13	1	
presence of natural persons			14	4	1	9

Source: own calculations.

Adlung and Roy (2005) stated that tourism has a substantially higher level of liberalization than any other GATS sector, so it is not a surprise that all WTO Members from CEE have made commitments in tourism under the GATS. But the number of commitments made varies by subsector: while the CEE countries have all made commitments under the hotels, restaurants and travel agencies sub-category, the number of commitments then begins to fall to only 3 commitments under the "other" subsector. It should be noted that under the last mentioned sub-category there is no description of what is included. It is also quite important that acceding members of WTO have committed more tourism subsector than original WTO members.

In regard to the level of market access and national treatment provided within CEE countries schedules, commitments by mode of supply vary widely for the tourism sector as a whole (see: table 6). Tourism is no exception to the general GATS commitments pattern observed by Adlung and Roy (2005). They stated that the highest levels of full market access being giving to consumption abroad, followed by significantly lower levels for cross-border supply and commercial presence, with only minimal levels for movement of natural persons[4]. The most common restriction appearing in schedules is that cross-border supply, especially of hotel and restaurant services, is indicated as unbound due to lack of technical feasibility. One can say that it is obvious, because consumption of meal is impossible without physical presence. Interestingly, other countries have made full commitments for these same services. In case of commercial presence of hotels or restaurants some countries declared that location in the protected areas of particular historic and artistic interest and within national or landscape parks is subject to authorization which can be denied.

Summarizing results of SSC analysis, shows that CEE countries:
- submitted very similar schedules to those issued by well developed countries. The only significant exemption is fact that acceding members of WTO have often committed under tourist guide services.

- liberalization market access commitments are generally applied to consumption abroad and commercial presence (see: table 7).

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[4] Kruszka (2005b) provided more information about trade in services under mode 4 in CEE countries.

5. GATS AND SUSTAINABLE TOURISM

As was stressed previously, the core idea of GATS is nondiscrimination which is linked with the neoliberal paradigm in tourism policy as well. But it is a source of criticism of GATS. The strongest criticism has come from non-governmental organizations (for example Tourism Concern, 2002) and they pointed out that GATS, as a tool of trade liberalization, is very danger for sustainable tourism. The main concerns over GATS implementation and sustainable tourism are now summarised.

The first issue is to define the meaning of sustainable tourism properly. Font and Bendell (2002) concluded that such kind of tourism refers to meeting the needs and rights of present tourists and host communities and regions, while protecting and enhancing opportunities for the future. Sustainable development can be defined as a sustained improvement in the fulfilment of the rights and needs of a population without exerting a negative impact on the environment, and ecotourism defined as responsible travel to natural areas which conserves the environment, supports the rights, and improves the welfare of local people.

Market access rules have the potential to weaken the protection, conservation and the ability of local communities and national governments to regulate tourism and tourist behaviour. Market access principles prohibit qualitative and quantitative restrictions as sources of potential trade discrimination. Under these rules safeguards measures which local communities and governments have used to create a space for sustainable tourism development could be challenged. For instance, tourism carrying capacity, frequently mentioned as a tool for controlling the direction and consequences of tourism development, may find itself under threat. Market access rules make it very difficult for environmental protection agencies to establish quotas or limits in areas threatened by high tourist numbers and tourism expansion. Another area that is likely to come under consideration because of market access rules is tour guiding. The importance of tour guides has been stressed by Dahles (2002), but it is worth noting that guides play an important role in sustainable tourism initiatives, because they can act as educators and representatives of the local community. Qualitative restrictions such as licensing and qualifications may fall foul of trade discrimination rules. The attempts at domestic regulation through licensing and qualification standards are weakened further by article VI of GATS. This article relates to the need to avoid unnecessary consciousness in licensing arrangements which might otherwise be seen as trade discrimination.

MFN and national treatment are also pointed out as a possible obstacle for sustainable tourism (Hoad, 2003). In short, national treatment rules prohibit discrimination against foreign services suppliers and their products. Furthermore, national treatment rules would also make investment requirements on foreign firms to establish joint ventures or train and hire local employees, practically useless. National treatment principles provide a barrier to preferential treatment for local communities and threatens to undermine the efforts of local communities to take control of their own territory. Challenging local practices and increasing the number of services suppliers may complicate the process of planning and governance. One might also stress that by free access to tourism markets for foreign suppliers, local support and interest in conservation projects decreases.

However, above mentioned criticism of GATS can be considered significant only if government of WTO member declares full market access and application of national treatment. Because this is independent decisions of government any reservations should be addressed at member state, not at WTO. Countries that aware of possible effects of their

commitments could modify their SSC, which was sometimes applied. For example Croatia and Slovenia declared that locating hotels and restaurants in the national heritage or wildlife landscape places requires special permits form government or local authorities.

On the other hand, lack of direct link between GATS norms and need for sustainable tourism development makes this issue less apparent to the politicians responsible for trade policy. Hence during the first multilateral round of WTO negotiations (Doha Round, initiated in 2001) group of developing countries from Latin America proposed creating GATS appendix aimed at direct supporting sustainable tourism development[5]. Appendices to GATS have already been accepted, for example financial services, which meant that this was possible. Unfortunately, Doha Round negotiations were subject to single undertaking rule, which means that all items of trade are negotiable and nothing is agreed until everything is agreed. That's why positive end of negotiations about trade in services is not possible if for example intellectual property issues are not agreed. As a result of this rule problems with agriculture agreement, especially problem of subsiding of it by developed countries resulted in the WTO negotiations crisis. It lead to the suspension of talks in the July 2006. The issues of sustainable tourism were not so controversial but effect of single undertaking rule has buried efforts aimed at applying GATS norms to sustainable tourism.

6. CONCLUSIONS

Services are very important component of global trade and trade in tourism services is a source of serious surplus for almost all CEE economies. According to this governments of these countries are not against liberalization of trade in services. Schedules of Specific Commitments submitted by CEE countries are similar to the global trend of free market access and national treatment of foreign tourism services suppliers. It has to be underlined that it refers mainly to the hotels, restaurants and travel agencies. Tourist guide services are subject to such attitude to the much lower extent.

Another issue is relationship between GATS and rules of sustainable tourism development. In its present form GATS does not refer to this idea at all. Only governments that were aware of this fact were able to introduce barriers aimed at limiting tourism in order to protect specific social or cultural aspect of domestic economy or local community. It should be underlined that such policy was possible only at the stage of WTO accession. Moreover, introducing measures inconsistent with general rules of GATS required ability to forecast effects of foreign tourists or tourism companies investments inflow. Not all of members governments were able to do so. Hence SSC have only few limits aimed at supporting sustainable tourism.

Any other way aimed at completing GATS regulations can be developing standards of sustainable tourism which means environmental care, compatibility of services with local culture, sustaining habits and rights of local citizens. Font and Bandell (2004) proved that so defined programs lead to the implementation of certification of suppliers behaving in this way. Promoting these programs, on conditions that they are not compulsory does not violate GATS.

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[5] Document S/CSS/W/107.

According to the above mentioned problems CEE countries governments face a couple challenges. First is answer to the question whether they want to develop sustainable tourism. Presently it seems that none of them is against. If it is true they should be interested in resuming Doha Round and finishing negotiations on GATS tourism appendix. EU members have prior to convince European Commission, because it is responsible for WTO negotiations. It is very important for CEE countries, because tourism is a source of increasing income from international trade. Countries outside EU can get together in order to negotiate, similarly to Latin America countries .

Lack of concluding of Doha Round negotiations means that promotion of sustainable tourism will be subject to internal policy of each government. Of course, setting up new local enterprises aimed at domestic market activity is easier to be linked to sustainable tourism requirements. However it should be notified that if every country follows such strategy, benefits of free trade will be eliminated .

Under such circumstances one can find the dilemma. Promotion of regional sustainable tourism policies is relatively easy at domestic market scale, but can be treated as violation of national treatment and market access rules applied to foreign suppliers. According to the WTO agreements sustainable tourism standards could not be enforced as qualification requirements, but government is allowed to promote development of voluntary codes of best practice or certification programs. On the other hand, full implementation of liberal norms of GATS can result, for whole economic system, in benefiting from free trade, but does not consider specific socio – economic properties of chosen tourism regions which sustainable development can be under threat. Solving of this dilemma is subject to each governments' strategy. The possibility of compatibility between effective and widespread sustainable tourism standards and the GATS does still remain, but will require further work from academics, managers, policymakers, and activists.

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ENTREPRENEURIAL CHARACTERISTICS OF CROATIAN EXPORTERS

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1. INTRODUCTION

Entreprenurial activity has for long been acknowledged as a significant contributing factor to the economic vitality of a nation or a region (i.e. Schumpeter, 1934; Kent, 1982;). It is linked with individuals, new ventures, risk-taking and innovation (Jennings and Lumpkin, 1989; Lumpkin and Dess,1996). It is very often associated with growth and job creation, and thus crucially important for emerging economies such are Central and Eastern European transitional countries. According to Balabanis and Katiskea (2003), entrepreneurial posture is determined by three major attributes: the organisations' propensity to take risks, innovativeness and proactiveness.

Risk taking propensity refers to company's willingness to engage in business ventures in which the outcome may be highly uncertain. It is a relatively stable characteristic, but can be modified through experience. Although it is often viewed as an individual characteristic (of a person, i.e. manager), the positive association between risk propensity and risky decision making by individuals is expected to translate to organisations through top management teams (Panzano and Billings, 2005).

Innovation refers to the ability of a company to create new products or procedures or to modify the existing ones in order to meet the changing market requirements. Innovativeness is important for company growth and development for several reasons: innovative products present opportunities for companies in terms of growth and expansion into new areas and allow companies to gain competitive advantage. Innovative policies and innovations themselves are important for both established and new companies. They alow established companies to gain dominant competitive positions and afford new-comer companies an opportunitiy to gain an edge in the market (Erdil, 2004).

Proactiveness refers to companys' capacity to compete in the market by introducing new products, services, technologies, etc. It relates to aggressive posturing relative to competitors, with emphasis on execution and follow-up of tasks in pursuit of the company's objectives (Knight, 2001).

Different companies, due to their different characteristics such are size, age, branch, organizational structure, etc. possess different ability to adopt an entrepreneurial posture as well as to reap benefits of it.

On the other hand, the major characteristics of the world economy today are shortened product development cycles, customer-driven markets and knowledge intensive products. There are only a few products and producers that do not have to face keen international competition, either on their local or international market. Competition is getting a more international dimension and is intensifying.

Exporting has always been an important mode of doing business internationally and it is a «must» for small and medium sized companies and small countries in general, as it represents one of the most applicable opportunities for their growth. However, international markets by definition tend to be more complex and unpredictable and possibly more hostile for foreign companies. Therefore the adoption of entrepreneurial characteristics in doing bussiness internationally becomes crucial.

The aim of this paper is to test the level of entrepreneurial behaviour and typical characteristics of Croatian exporters. Using the multuivariate and inferential statistics we have analysed a sample of 88 Croatian exporters and results of the research are presented in this paper.

2. CROATIAN EXPORTS AND EXPORTERS

Out of about 76,000 registered companies in Croatia there are only about 7,000 exporting companies (less than 10%). Among them only 3,144 can be called active exporters that made export value of over 1 million kuna (about 133,000 Euro), and only about 200 of them export value of over 1 million Euros. Large groups and companies make over 95% of Croatian exports. At the same time, the long-term export results in Croatia are rather unsatisfactory: imports are constantly growing and exports are stagnating, thus creating a disturbing balance of trade deficit.

The research (Izvoznik, 2004) has shown that most export managers see several reasons for such situation:

- problems with export financing,
- non-competitive export pricing,
- insufficient or bad promotion activities, and
- export products' quality.

Table 1 shows the major indicators of Croatian economy concerning international business results in period 1998-2005

Table 1:The major indicators of international trade results in Croatia 1998-2005 (mil US$)

	1998	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
EXPORT	4,517.2	4,302.5	4,431.6	4,665.9	4,903.6	6,186.6	8,022.5	8,809.0
IMPORT	8,275.6	7,798.7	7,886.5	9,147.1	10,722.0	14,209.0	16,583.2	18,546.5
BALANCE	-3,758.4	-3,496.1	-3,454.9	-4,481.2	-5,818.5	-8,022.4	-8,560.7	-9,737.5
FOREIGN DEBT	10,738.9	10,192.7	11,282.2	11,870.2	15,679.6	24,759.3	31,002.2	30,219,9

Source: Croatian Chamber of Commerce 2006; reports

The export/import coverage throughout the whole period was around 50%. In 2004 it was only 48.4 %. Within the analyzed period, only in year 2004 exports growth was more rapid than imports growth. The value of exports per capita in 2005 in Croatia was only about 1,100 US$, whereas in Slovenia, for example, it was 4,774 US$ and in Ireland 22,120 US$. Figure 1 shows the major trends in Croatian export and import in period 1998-2005.
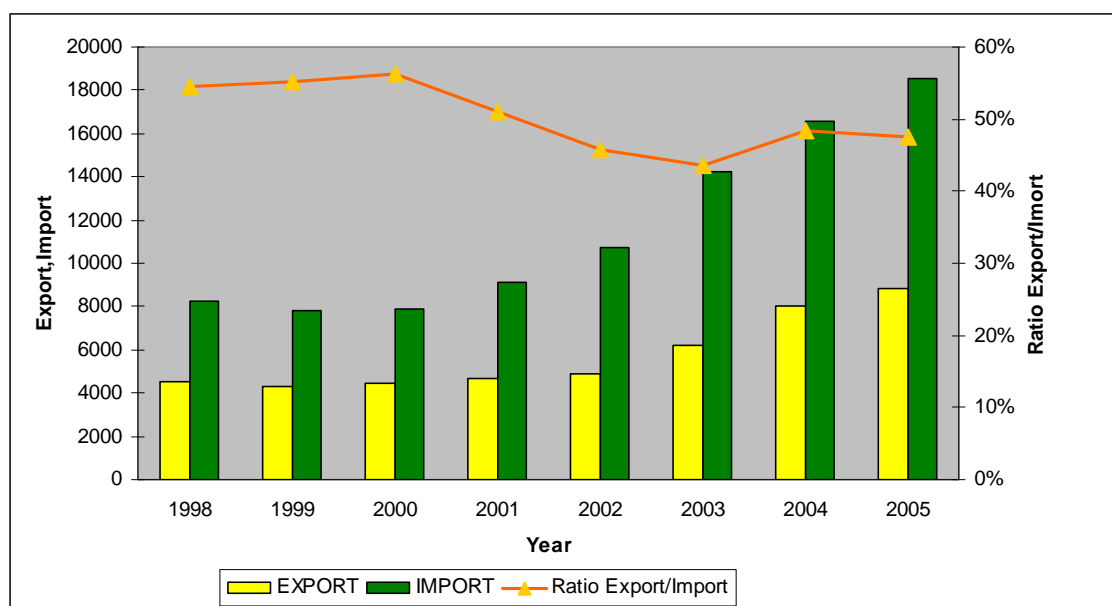
Figure 1: Import and export growth and export/import ratio (1998-2005) in mil. US$

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3. RESEARCH

We have conducted a research of Croatian exporters in period March – May 2004. The data collection model was a postal survey. A questionnaire was sent to a sample of 300 exporters which were randomly drawn from the Croatian Chamber of Commerce database as 10% of active exporters. A weighing variable was computed (sample representativeness is ± 4%) in terms of company age, number of employees and type of business activity. The sample covers the whole territory of Republic of Croatia. The key informant approach was used and the recipients of the questionnaire were chosen to be managing directors of the companies. Four weeks after initial mailing a remind letter and a new questionnaire was sent to non-respondents. At the end, a total of 90 questionnaires were returned and 88 of them were usable for our research (two companies were not exporting anymore). The effective responsive rate reached 29.3%.

3.1. Sample description

According to the business activity, the sample of 88 Croatian exporters was divided into two groups: one that consisted of so called traditional activities that are characterized by labor intensity, and other that is mostly technology or capital intensive. 46 companies (52.9%) of the sample belong to the first group and 41 (47.1%) to the second.

Number of employees was used as a measure of company size. According to this criterion, 20.5% of the sample has 100 and less employees. 50% of the sample employs 215 or less employees. Almost half (45.5%) of the sample belongs to large companies with over 250 employees. The largest company in the sample has 3880 employees.

Company age, according to some research, seems to have an impact on level of innovativeness (Hansen, 1992; Balabanis and Katiskea, 2003). Our sample has the following age structure: 50% of the sample is 44 years old or younger, i.e. older. The oldest company is 300 years old. Only 12 exporting companies in the sample (13.6%) can be considered young (10 years or younger).

The basic characteristics of the sample are shown in Table 2.

Table 2: Sample description

	N	Valid percent
Type of activity		
Traditional (labour intensive) activities	46	52.9
Non- traditional (technology or capital intensive) activities	41	47.1
Number of employees		
Up to 50	13	14.8
50-250	35	39.8
250 and more	40	45.5
Company age		
0-10	12	13.6
10-30	24	27.3
30-50	18	20.5
50-80	18	20.4
80-300	16	18.2

3.2. Questionnaire

The questionnaire was constructed to analyze the structure of exporting companies in Croatia: type of business activity, number of employees and company age on one hand, and on the other to test their entrepreneurial orientation in doing business internationally. This part was tested by evaluation on 5-point Likert scale of the well-known construct for measuring international entrepreneurial orientation used by number of authors (Covin and Slevin, 1989; Khandwalla, 1987; Balabanis and Katiskea, 2003).

The results were then checked against the company characteristics and secondly, against variables describing:
- environmental hostility (reliability of financial and material resources, possibilities for business development, competition, industry settings and general climate for business),
- environmental diversity (key foreign markets and their economic and cultural diversity), and
- environmental dynamism (importance and influence of political, economic and cultural changes in the key export markets).

These variables, according to Balabanis and Katiskea (2003), are correlated with entrepreneurial posture.

3.3. Analysis and results

Innovativeness was tested on five variables, as can be seen in Table 3.

Table 3: Innovativeness

	Mean	Median	Std. Deviation
Employees' knowledge and expertise	3.76	4.00	.763
Level of change acceptance in company and environment	3.29	3.00	1.022
Research application in business	3.10	3.00	.903
Level of communication process formalization	3.26	3.00	.893
Ability to change products and processes in accordance with market requirements	3.65	4.00	.855
Total	*3.42*		*.6873*

The average innovativeness value was marked as 3.42 on 5 point Likert scale. The highest average mark was given to "employees knowledge and expertise" variable and the lowest to "Research application in business" variable.

Proactiveness was tested on three variables, as can be seen in Table 4.

Table 4: Proactiveness

	Mean	Median	Std. Deviation
"we constantly search for new possibilities for existing business activities"	3.71	4.00	.998
"we are often the first ones to introduce new products/technologies on the market"	3.33	3.00	1.207
"we constantly actively search for new partners to improve business activities"	3.95	4.00	.909
Total	*3.67*		*.83750*

Proactiveness was given an average mark of 3.67, the highest of all three characteristics. The highest mark, was given to the "we actively search for new partners to improve business activities" variable, and the lowest to "we are often first ones to introduce new products/technologies on the market" variable.

Risk taking propensity was tested on four variables as it is shown in Table 5.

Table 5: Risk taking propensity

	Mean	Median	Std. Deviation
"our business activities can be considered risky"	2.67	3.00	1.014
"we introduce new projects slowly and step by step"	3.63	4.00	.966
"we are very conservative in major business decisions"	2.98	3.0	1.95
"we hold onto existing and well known projects and procedures"	3.21	3.0	.869
Total	*3.12*		*.57873*

The average mark given to risk taking propensity was 3.12., the lowest of all three characteristics. The highest mark to the risk taking propensity was given to the "we introduce new projects slowly and step by step" variable, which is the negative measure of risk taking propensity, and adequately, the lowest mark was given to the "our business can be considered risky" variable.

The means of each of these complex three variables (innovativeness, proactiveness and risk taking propensity) were than standardized (z-score) in order to ensure their comparability. They were marked as criteria variables for hierarchical cluster analysis. The cluster analysis has divided the sample in two clusters: the first one ("entrepreneurial") with 50 companies, and the average score of entrepreneurial behavior of 3.76 and the second one ("non-entrepreneurial") with 26 companies with the average score of entrepreneurial behavior of only 2.9. Twelve companies in the sample did not fit into any if the clusters, because of the missing data so we can assume that unanswered options, i.e. variables are non-existing, so these 12 companies might also fit into non-entrepreneurial cluster. Table 6 shows the results of t-test analysis of cluster differentiation according to criteria variables, i.e. average of variables that were used for innovativeness, proactiveness and risk taking propensity measurement.

Table 6:. t-test analysis of cluster differentiation according to criteria variables

	Cluster number of case	N	Mean	Std. deviation	t-test	Sig.
Mean of innovativeness variables	1 2	50 26	3.9800 3.0513	.6914 .8148	4.957	0.000**
Mean of proactiveness variables	1 2	50 26	3,7920 2.7154	.4462 .5002	9.231	0.000**
Mean of risk taking propensity variables	1 2	50 26	3.4950 2. 9327	.5567 .4613	4.689	0.000**

** Mean Difference was significant at the 0.01 level (*P<0.01*)

Further analysis has shown that the two clusters do not differ significantly according to their own characteristics: type of business (t=0.153; p=0.695), number of employees (t= 0.001; p=0.971) or company age (t=1.850; p=0.178).

According to the t-test results, they do significantly differ in evaluation of all elements of environment hostility (reliability of material resources (t=2.471, p=0.018), reliability of financial resources (t=3.219, p=0.002) and possibilities for business development (t=4.249, p=0.000) in their key export markets. They also significantly differ in their perception of economic aspects of environment diversity (i.e. differences in economic environment) in their key export markets (t= 2.115, p=0.036). However, they do not significantly differ in evaluation of cultural aspects of environment diversity (i.e. cultural differences) and in evaluation of environment dynamism (political, economic and social changes and their influence on their own business) in their key export markets.

Table 7 shows the statistically significant differences between the two clusters. Cluster 1 is the "entrepreneurial" and cluster 2 the "non-entrepreneurial" one.

T*able 7: Statistically significant differences between the two clusters*

	Cluster number of case	N	Mean	Std. deviation	t-test	Sig.
reliability of material resources	1 2	50 26	4.12 3.50	.90 1.10	2.471	.018*
reliability of financial resources	1 2	50 26	3.64 2.88	1.01 .95	3.219	.002*
possibilities for business development	1 2	50 26	3.94 3.04	.89 .87	4.249	.000**
economic aspects of environment diversity	1 2	50 26	3.74 3.23	1.03 .95	2.155	.036*

** Mean Difference was significant at the 0.01 level (*P<0.01*)
* Mean Difference was significant at the 0.05 level (P<0.05)

4. DISCUSSION

Altogether, if innovativeness, proactiveness and risk taking propensity are used as a measure of entrepreneurial behavior, our research shows that Croatian exporters have relatively low level of entrepreneurial behavior. Although the majority of the sample exporters belong to the "entrepreneurial" cluster, the average mark on 5 point Likert scale for all the three characteristics is only 3.40 (entrepreneurial cluster 3.69, and the non-entrepreneurial only 2.70). In the whole model, the highest mark was given to proactiveness, but mostly thanks to the variable of searching for partners in international market - mostly to share the risk, while the risk taking propensity variable consequently got the lowest mark, only 3.12. Innovativeness as a characteristic of entrepreneurial behavior got the middle mark (3.42) but there is a noticeable gap between the highest and lowest marked variable: employees have rather good knowledge and expertise, but the research application in business operations is extremely low. These findings indicate an underestimation and suboptimal use of human resources and their potential contribution to international business success and also might be one of the reasons for low risk taking propensity of Croatian exporters.

Contrary to some other research for different countries (Balabanis and Katiskea, 2003; Guan and Ma, 2003; Mtigwe, 2005), this research shows that company internal characteristics such are size, age or type of business activity, do not significantly influence the level of entrepreneurial orientation and behavior in international markets in case of Croatian exporters, while some of the external variables seem to have a much more significant influence. External variables that represent elements of environment hostility of the foreign market and environment economic diversity differ significantly. Elements defining environment cultural diversity and dynamism, again, do not significantly differ in case of entrepreneurial vs. non-entrepreneurial Croatian exporters.

These phenomena might be explained by the environmental turbulence of the transitional economies of the ex-Yugoslavian market during past two decades: the 1991-1995 war has split the single country into six independent states, so previous parts of the domestic market have become international. These ex-Yugoslavian markets create the most important export markets (export concentration of over 50%) for 27 companies, i.e.1/3 of our sample. The same stands for the data of all Croatian exports: ex-Yugoslavia countries make about 28% of Croatian export markets. These countries share the same history as well and socio-cultural environment. Therefore, it is understandable that cultural diversity and environment dynamism are not seen as important factors for both clusters. However, economic diversity which is obvious even in the ex-Yugoslavia countries (for example Slovenia in EU and Bosnia and Herzegovina as politically and economically disunited market) seems to play a significant role, especially in the entrepreneurial cluster since it requires research, strategy adaptation and other elements of entrepreneurial posture.

5. LIMITATIONS AND FURTHER RESEARCH

This research has some limitations. One is relatively small sample, which might be biased to a certain extent, i.e. that only those managers that have recognized the researched topics have answered the questionnaire. The other bias is the fact that many managing directors of companies are also the owners, so their objectivity might be questioned.

The next step of this research would be to check the relationship of entrepreneurial characteristics of exporters with their export performance and is if any or all of these characteristics influence the Croatian companies' export performance.

Furthermore, it would be interesting to compare the results of exporting with the new research of non-exporting companies and see if they differ significantly, i.e. if exporters have recognized the entrepreneurial orientation as a key concept to solving specific challenges of doing business internationally.

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ORGANIZATIONAL CULTURE INSIGHT:
THE CROATIAN CASE

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1. INTRODUCTION

Organizational culture is often defined as a prevalent system of assumptions, beliefs, values and norms that is shared among its members (Davis and Newstrom, 1989, p. 60). It stands for the social energy that moves members of an organization toward fulfilling its vision, mission and goals, as well as for the control mechanism that can strongly inhibit certain deviations in work behavior of its members (Schein, 1999, p. 17). Strong culture can have favorable outcomes for both organizations and its members, and it can be identified as one of the key factors for understanding business excellence (Austin and Peters, 1985, p. 330-334).

The main purpose of this paper is to examine the pattern of organizational culture in Croatian firms, as well as to identify predominant organizational culture type. The research model is based on the Mergerison's typology of organizational culture (Benett, 1981), and the findings are going to be placed in the context of environmental complexity which is characterized in terms of change dynamics, as well as in the context of the rigidity of existing legal framework.

2. THEORETICAL DETERMINATION OF ORGANIZATINAL CULTURE

Since the early 1980s, when the culture perspective originally burst onto the organizational studies scene, the literature has evolved through many interesting stages, yet no single pre-eminent point of view or methodology for the study of culture hasn't been reached, but rather a rich mixture of ideas and approaches, which range from anthropology to social psychology and organizational sociology. The implications of the differing theoretical foundations and their underlying assumptions about the phenomenon often led to a situation where organizational culture was labeled as "garbage can", and all organizational variables which couldn't be described accurately were put in. Many definitions of culture give primacy to the cognitive components, such as assumptions, beliefs, and values. Others expand the concept to include behaviors and artifacts, leading to a common distinction between the visible and the hidden levels of organizational culture. Some theorist, argue that culture should be considered as multiple level organizational phenomena.

Pearce and Robinson (2000) define organizational culture as the set of important assumptions that members of an organization share in common.

Jones et al (2000) define it as set of values, norms, standards of behavior, and common expectations that control the way in which individuals and groups in an organization interact with each other and work to achieve organizational goals (Jones et al 2000, p. 332).

Louis (1980) stated that organizational culture is also set of understandings or meanings shared by a group of people that are largely tacit among members and are clearly relevant and distinctive to the particular group which are also passed on to new members.

Organizational culture helps define how workers feel about their jobs involving common assumptions about how work should be performed and about appropriate objectives for the organization. It affects management style of the company, employees approaches to their jobs, and opinion about what is and is not proper (Bennet, 1994, p. 137).

It has been defined as the specific collection of values and norms that are shared by people and groups in an organization and that control the way they interact with each other and with stakeholders outside the organization. Organizational values are beliefs and ideas about what kinds of goals members of an organization should pursue and ideas about the appropriate kinds or standards of behavior organizational members should use to achieve these goals. From organizational values develop organizational norms, guidelines or expectations that prescribe appropriate kinds of behavior by employees in particular situations and control the behavior of organizational members towards one another (Hill and Jones, 2001).

Basically, organizational culture is the personality of the organization. Culture is comprised of the assumptions, values, norms and tangible signs (artifacts) of organization members and their behaviors. Members of an organization soon come to sense the particular culture of an organization. Culture is one of those terms that are difficult to express distinctly, but everyone knows it when they sense it.

There are many researchers focused on organisational culture importance and impact on the organizational efficiency (Smircich 1983, Bennett 1994, Schein 1999). It is concluded that, under a relatively narrow set of conditions, a firm's culture can be the source of sustained competitive advantage and can generate superior financial performance.

Because the identification of organizational culture and understanding of its context is very complex issue many typologies of organizational culture are set up. The purpose of constructing typologies is to classify, sort out and clarify the complex content of the social reality and to find the typical constellations of selected characteristics of a research phenomenon (Lukašova, Frankova and Suryneki, 2006, p. 349).

There are number of studies which identified typologies of organizational cultures from various perspectives (Deal-Kennedy, Edwards-Kleiner, Scholz, Handy, Cameron-Quinn, Mergerison and others).

In this paper the Mergerison's typology is used in order to analyse the organizational culture in Croatian firms. In this respect organizational cultures are classified and analysed in this research as follows:

Dynamic organisational culture comprises the factors of developmental/entrepreneurial orientation, social orientation and decentralization. It encourages flexibility and readiness as well as it fosters organization's ability to receive, interpret and translate signals from the environment into internal organizational and behavioural changes that will promote its survival, growth and development.

Static organizational culture comprises the factors of bureaucracy, status quo maintaining and formalization. It operates through formal rules and procedures with clearly defined set of behaviours promoting security and predictability, but allow only limited change and adaptability.

3. RESEARCH HYPOTHESIS AND METHODOLOGY

3.1. Research hypothesis

The main purpose of this paper is to examine the pattern of organizational culture in Croatian firms, as well as to identify predominant organizational culture type. In order to fulfill the aim of this paper the following research hypotheses are set up:

H 1: The predominant types of organizational culture in Croatian firms are entrepreneurial organizational culture and bureaucratic organizational culture.
H 2: Factors that promote bureaucratic organizational culture, and inhibit development of entrepreneurial organizational culture are to greater extent present in Croatian firms.

3.2. Methodology

In this research 389 managers were interviewed in 118 different Croatian companies.

Table 1 represents the structure of interviewed companies by activity.

Table 1. Number of companies in the sample

Activity	Number	%
Commerce	35	29,66
Manufacture	28	23,73
Services	55	46,61
Total	**118**	**100,00**

For data collection the questionnaire with 76 questions classified in four sections was used. The sections are formulated as follows; the first group of questions includes the basic information about interweaved company, such as activity, size, age and region of belongings, the second group of questions relates to the personal characteristics of interviewed employees such as age, gender, marital status, experience and tenure. The third group of questions refers to leadership style which was described by 6 variables: leadership, motivation, communication, decision making, objectives and control, whereas fourth group of questions relates to the organizational culture, which was conceptualized according to Mergerison's typology, that includes 6 relevant factors; factors of developmental/entrepreneurial

orientation, factors of bureaucracy, factors of social orientation, factors of decentralization, factors of maintaining *status quo* and factors of formalization. These factors are about to determine the extent to which Croatian companies engage in activities that reflect certain type of organizational culture. The answers to these questions were formulated as Likert type scale with four levels of intensity.

Data analysis and testing the hypotheses were done using adequate statistical methods. Additionally, statistical analysis was based on computer programs SPSS 11.5 for Windows and Microsoft Excel 2000.

The demographics of the respondents in the sample are captured by several characteristics. Women account for about 43% of the respondents. The age distribution of the sample consists of nearly even split between participants who are 30 years old or younger (18%), between the ages of 31 and 35 years old (18%), between the ages of 36 and 40 years old (16%), and between the ages of 41 and 45 years old (16%). Younger workers account for about 63% of all participants, while just over 7% account for older workers (55 years old or older). The participants were almost equally distributed among 2 categories; those who were born in the headquarters, and those who were born outside the headquarters, which indicates that about 50% of all mangers were recruited from the local citizens. As for the origin of participants in the sample, there is almost even proportion of those with worker, clerk an intellectual professions origin. The three dominant categories account for almost 90% of all participants. Just over 87% of all interweaved managers hold university diploma, and some 12% of all participants have high school degree. By profession, over 90% of the total number of participants are engineers and economists. In terms of work experience, some 30% of all survey participants reported working less than 10 years, and just over 8% reported working more than 30 years. There is nearly even split between participants who reported working between 11 and 15 years (15,7%), between participants who reported working between 16 and 20 years (15,2%), and between participants who reported working between 21 and 25 years (17,0%).

4. RESEARCH RESULTS

Factors of developmental/entrepreneurial orientation are considered to be the most important characteristic of every company due to the fact that this particular characteristic determines whether the company is future - oriented (toward development and improvement), or it is predominantly present/past - oriented (satisfied with its current market position and the way business traditionally is done).

In order to demonstrate the level of developmental/entrepreneurial orientation in Croatian firms, 15 factors of developmental/entrepreneurial orientation were analyzed. The results are presented in table 2.

Table 2. Factors of developmental/entrepreneurial orientation (proportion of answers)

Question	none (%)	few (%)	fairly (%)	fully (%)
1. Proactive approach	2,1	19,3	54,2	24,2
2. Orientation toward future and development and progress stimulation	0,8	14,1	49,4	35,7
3. New projects	0,5	15,9	55,8	27,8
4. Market orientation	2,1	12,3	39,1	46,5
5. Creativity	1,0	28,0	55,3	15,7
6. Economic decision making criteria	1,5	11,3	57,6	29,6
7. Ambitious goals	0,3	13,6	58,6	27,5
8. Organizational dynamics and change	2,3	28,0	52,2	17,5
9. Stability	1,5	12,9	66,8	18,8
10. Risk taking	3,2	32,4	51,4	12,6
11. Conceptual approach	1,5	21,1	64,3	13,1
12. Enhancing creativity	3,3	36,8	46,5	13,4
13. Rigid control	1,8	26,2	53,2	18,8
14. Embracing new ideas	4,6	39,6	45,2	10,5
15. Maintaining creativity	4,6	44,5	41,4	9,5
Total:	**2,07**	**23,73**	**52,73**	**21,41**

As it can be seen from table 2, the proportion of answers of all survey participants range from "none" to "fully". Nevertheless, nearly three quarters (74,14%) of all interviewed managers consider developmental/entrepreneurial orientation to be "fairly" or "fully" inserted into organization's architecture. In comparison, only some over 2% of all survey participants consider this organizational trait to be no existed in their firms. This could be interpreted as a predominance of entrepreneurial organizational culture in Croatian firms, as it is understood that this particular organizational culture type facilitates, encourages and reinforces developmental and entrepreneurial orientation.

In order to examine the prevalence of bureaucratic organizational culture in Croatian firms, 4 items were analyzed, each standing for different factor of bureaucracy. It is important to identify the extent to which factors of bureaucracy are present in Croatian firms due to their strong potential to influence negatively on developmental/entrepreneurial orientation of these firms. The results are given in table 3.

Table 3. Factors of bureaucracy (proportion of answers)

Question	none (%)	few (%)	fairly (%)	fully (%)
1. Instructional communication	2,8	13,9	62,0	21,3
2. Strict and formal organization	4,4	18,5	62,2	14,9
3. Authoritative style and centralized decision making	8,0	26,2	53,0	12,9
4. Written reports and information required	3,1	13,9	58,9	24,2
Total:	**4,58**	**18,13**	**59,03**	**18,33**

It is evident that factors of bureaucracy in Croatian firms are considerably present. In particular, over 77% of all interweaved managers consider factors of bureaucracy to be

"fairly" or "fully" existed in their firms. It should be noted that high degree of development of bureaucracy factors should suppress entrepreneurial orientation in these firms.

As to determine the relevance of human factor in Croatian firms, 14 factors of social orientation were analyzed respectively.

Table 4. Factors of social orientation (proportion of answers)

Question	none (%)	few (%)	fairly (%)	fully (%)
1. Orientation toward human factor of organization	3,6	24,2	54,5	17,7
2. Thrust in human relations	1,8	25,4	62,2	10,5
3. Fair treatment	1,3	24,2	57,3	17,2
4. Good interpersonal relations	2,6	28,3	54,0	15,2
5. Participation in decision making	5,1	49,9	40,6	4,4
6. Informal relations	6,4	42,2	46,0	5,4
7. Organizational commitment and job satisfaction	1,0	34,2	56,6	8,2
8. Conflicts	1,8	22,4	60,2	15,7
9. Security	0,8	10,0	61,4	27,8
10. Cooperation and teamwork	1,0	24,2	50,9	23,9
11. Acceptance of new ideas and suggestions	2,8	35,5	46,0	15,7
12. Support of new ideas realization	3,1	38,8	49,4	8,7
13. Importance of professionalism and expertise	2,1	17,7	49,1	31,1
14. Possibilities for training and education	2,6	30,1	51,2	16,2
Total:	**2,57**	**29,08**	**52,81**	**15,55**

As it can be seen from table 4, social orientation has a strong position in Croatian firm's organizational culture pattern. Just under 70% of all surveys participants consider factors of social orientation to be "fairly" or "fully" embodied in their organizations, while almost 30% of all interweaved managers are likely to report these factors to be relatively weakly integrated ("few") in their firm's organizational culture. Human relations orientation or social orientation, which is strongly characterized by development of firm's human resources is supposed to give positive impact to the development of entrepreneurial orientation (this can be related to an employee's confidence and capability to undertake new workplace challenges).

Factors of decentralization are, on the other hand, much less adopted. This could be seen from the statistical data presented in table 5.

Table 5. Factors of decentralisation (proportion of answers)

Question	none (%)	few (%)	fairly (%)	fully (%)
1. Organizational unit's autonomy in achieving goals	24,9	39,3	29,6	6,2
2. Decentralization in decision making	14,1	57,6	23,9	4,4
Total:	**19,50**	**48,45**	**26,75**	**5,30**

Nearly half of all survey participants consider decentralization to be only weakly integrated in their firm's organizational culture, while almost 20% of all interweaved managers doesn't perceive the existence of decentralisation at all. Some under one third of all participants

consider factors of decentralization to be "fairly" or "fully" built in their firm's culture. The sufficient degree of development of decentralization in Croatian firms can eliminate obstacles that inhibit entrepreneurial orientation which can be one of the key sources of business excellence.

Table 6. Factors of maintaining status quo (proportion of answers)

Question	none (%)	few (%)	fairly (%)	fully (%)
1. Maintaining status quo	0,5	17,0	72,0	10,5
2. Undertaking risk free projects	4,4	35,5	56,0	4,1
Total:	**2,45**	**26,25**	**64,00**	**7,30**

As to identify the development of factors which refer to maintaining status quo, 2 items were analyzed; one reflecting efforts made in maintaining status quo, and other reflecting tendency to risk free projects. Data presented in table 6, shows that factors of maintaining status quo are relatively deeply rooted in Croatian firm's organizational culture (nearly one third of all survey participants consider these factors to be"fairly" or "fully" present), which can be understood as the strong factor of resistance to entrepreneurial orientation development in Croatian firms.

Another group of factors which can strongly suppress the development of entrepreneurial orientation in Croatian firms, factors of formalization, was analyzed. These factors stand for the set of formal rules and procedures used to direct work behavior, as well as for the present degree of departmentalization and are also been considered to affect negatively dynamic and creativity immanent to entrepreneurial culture. The results are presented in table 7.

Table 7. Factors of formalisation (proportion of answers)

Question	none (%)	few (%)	fairly (%)	fully (%)
1. Degree of departmentalization	15,4	30,6	43,2	10,8
2. Rules and procedures that affect work behavior	5,4	34,2	48,6	11,8
Total:	**10,40**	**32,40**	**45,90**	**11,30**

As it can be seen from table 7, the proportion of answers of all survey participants range from "none" to "fully". Nevertheless, over half (57,2%) of all interviewed managers consider factors of formalization to be "fairly" or "fully" inserted into the organization. In comparison, only 10,4% of all survey participants considers this organizational trait to be no existed in their firms. This could be interpreted as a further obstacle to entrepreneurial orientation development in Croatian firms.

In addition, overall organizational culture in Croatian firms was analyzed, and statistical data is presented in table bellow.

Table 8: Ratings of organisational culture development

Factors of organisational culture	N	min	max	Mean
Factors of developmental/ entrepreneurial orientation	118	2.56	3.30	2.93
Factors of bureaucracy	118	2.71	3.04	2.88
Factors of social orientation	118	2.44	3.16	2.81
Factors of decentralisation	118	2.17	2.18	2.18
Factors of maintaining *status quo*	118	2.60	2.93	2.77
Factors of formalisation	118	2.49	2.66	2.58
Organisational culture:				**2.74**

Considering the degree of development of each group of factors determining the type of organisational culture, factors addressing developmental/ entrepreneurial orientation are developed to greatest extent. This should mean that in Croatian companies great attention is being paid to business activity and orientation toward future, meaning that Croatian companies are market oriented, with emphasis on business creativity and ambitious goal setting. Thus, Croatian companies could be recognized as dynamic with strong tendency to risk organizational behaviour. It should, however, be noted that second-ranked factors, are bureaucracy factors, and are followed by the factors of social orientation and factors of maintaining *status quo*. This would mean that centralization in decision making is emphasised in managerial pyramid, that organizational structure is mainly hierarchical, which gives additional importance to factors of developmental/entrepreneurial orientation and to their further expansion. Factors of maintaining *status quo*, fourth ranked, show tendency toward the preservation of the current position, which can strongly inhibit faster development of entrepreneurial orientation in Croatian firms. Least expressed are the factors of formalisation and decentralisation. This could mean that bureaucratic orientation in these firms is more likely to be expressed through unwritten rather than written rules. Low degree of decentralization is expectable and in accordance to the high rank of bureaucracy factors, but this should be taken into consideration as undesirable fact. Considering Mergerison's 2 types of organizational culture, an overall conclusion can be made that dynamic organisational culture, comprising the factors of developmental/ entrepreneurial orientation, social orientation and decentralisation has an average rating of 2.64. The static organisational culture, comprising the factors of bureaucracy, formalisation and status quo, has an average rating of 2.74.

It can thus be concluded that in Croatian companies both the dynamic and static organisational culture are almost equally developed. This can be the most dangerous situation for the future developmental scenario of these firms in the globalising world characterised by rapid changes.

5. CONCLUSIONS

The main purpose of this paper was to examine the pattern of organizational culture in Croatian firms, as well as to identify predominant organizational culture type. In order to fulfill the aim of this paper 2 research hypothesis were set up. The first one states that the predominant types of organizational culture in overall organizational culture pattern in Croatian firms are entrepreneurial and bureaucratic organizational culture. The results of descriptive statistics provide evidence to support Hypothesis 1. Factors addressing developmental/ entrepreneurial orientation which are understood to be immanent to

entrepreneurial organizational culture and factors of bureaucratic orientation which are indicators of bureaucratic organizational culture are to a greater extent present in Croatian firms.

The second hypothesis suggested that factors that promote bureaucratic organizational culture, and inhibit development of entrepreneurial organizational culture are to greater extent present in Croatian firms. The results of descriptive statistics do not provide evidence to fully support Hypothesis 2. Even though factors that promote bureaucratic organizational culture, e.g. factors of bureaucracy, factors of maintaining *status quo* and factors of formalization are deeply inserted into Croatian firm's organizational architecture, it seems that social orientation and human factor importance, which is a strong predictor of entrepreneurial organizational culture, is developed to a greater extent than expected. This can be encouraging result in the situation where both static and dynamic organisational cultures are almost equally developed. Future developmental scenario of Croatian companies can highly depend on human factor that can contribute to a great extent to further development of entrepreneurial orientation of Croatian firms and consequently expansion of entrepreneurial organizational culture in overall organizational culture pattern in Croatian companies.

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PARTICIPATIVE MANAGEMENT AND ORGANIZATIONAL SUCCESS: AN EXAMINATION OF CROATIAN AND AMERICAN UNDERGRADUATE STUDENTS' PREFERRED MANAGERIAL STYLE

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1. INTRODUCTION

If one examines western economies as a whole, it is clear that a transition is occurring. Globalization brings more competition; the majority of companies no longer are industrial, but rather provide services, and are themselves transitioning to providing knowledge and information (Bridges, 1996; Chiavenato; 2001); and the rate of change itself is increasing, requiring organizations themselves to become more flexible and adaptable (Morgan, 1998). The challenge to the modern manager as he or she oversees this transition is considerable (Rusak, 1990; Bridges; 1996).

How then to survive and thrive in the modern world? Although the answer is complex, it is clear that one vital component is the involvement of the employees of a company in that company's management (Senge, 1994; Kotter, 1999).

The research presented in this paper builds upon that of Sikavica (1996), who examined the tendency of Croatian and American managers to involve the employees in management. Although Sikavica found that Croatian managers most often use the consultative management style, they were less likely to delegate than American managers, and cited the reason for not delegating to be most often that the employees did not want to be delegated to. The research presented in this paper attempted to examine this finding—do Croatian employees want to be involved in the decisions made by management? Croatian and American undergraduate students were studied in order to assess which management style they would prefer their managers to have, as well as which type of management approach is most common in their respective countries.

2. LITERATURE REVIEW

2.1. The need for participative management

As Fischer (1990) says, the "master-servant" system on which management was based (the master makes the decisions, the servant executes them) is no longer adequate. It is clear that a deciding factor in the success of a company is the degree to which employees are involved in the decision-making process (Fischer, 1990; Rusak, 1990; Bridges, 1996; Smith, 1996; Kotter, 1999; Wheatley, 1999).

Fortunately, a convenient synergy has occurred; companies more and more are in the business of selling information and knowledge, which requires the use of the knowledge and abilities (human capital) of its employees. However, at the same time, the educational level, skills, and capabilities of the average employee are increasing, and along with it the wish to contribute this knowledge and ability towards the success of the organization (Hui et al., 2004). Clearly companies today, especially those for whom the use of its intellectual capital is crucial for its success, are able to find employees possessing the needed human capital. The challenge for managers more often is simply using this human capital in the running of the organization (Wheatley, 1999).

This problem arises because managers have often been conditioned to resist employee involvement. This is because the field of management itself was largely designed for the needs of industrial companies which employed poorly educated employees who performed manual tasks (Morgan, 1998). Thus the classical view of management, which states that managers should make the decisions, and the employees should execute them, reflects the needs of the industrial organization. The challenge for managers today is to understand that modern companies need to use the human capital of the employee in the decision-making process of the organization (Morgan, 1998; Wheatley, 1999), and that doing so will help the organization succeed.

In the field of participative management, there are two decision-making styles which involve the employee: consultative and participative. In consultative, the manager obtains input from the employees affected by this decision, and then the manager makes the decision based on what he or she thinks best (Hofstede, 2001). In participative, the manager, along with the employees, or the employees on their own (for example, in the form of a team) make the decision (Sikavica, 1996; Hofstede, 2001).

Let us be clear; no-one is arguing that a manager must involve employees in every decision that he or she makes. There is still a time and a place for the authoritative and persuasive/paternalistic decision-making styles, both of which do not involve the employees[1]. However a clear connection has been made between the involvement of employees in decision-making processes and organizational success (Grossman, 2006). Generally, employees should be involved to some degree in management decisions which affect them and/or in which they can contribute knowledge or

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[1]In the authoritative decision-making style, the manager makes the decision on his or her own and expects the employees to accept it without question. In the persuasive/paternalistic decision-making style, the manager makes the decision, but attempts to persuade the employees that that decision was the correct one to make (Hoppe, 1990; Hofstede, 2001).

experience not possessed by management (for example, front-line employees often know more about customer needs and wants than the management).

Companies which regularly involve employees in the decision-making process have been proven to enjoy increased productivity, quality, and employee satisfaction (Fischer, 1990; Chiavenato, 2001; Hui, et al, 2004). They also become more flexible, and adapt to changes outside the organization more easily (Morgan, 1998; Kotter, 1999). Finally, companies which use participative management also enjoy more investment; this is because business investors, recognizing the connection between employee involvement and company success, are more and more investigating the degree that employees are involved in decision-making processes before investing in a company (Grossman, 2006).

2.2. The reciprocity of participative management

Research has clearly shown that for participative management to be successful, the employee must want to be involved in the decision-making process (Sagie and Aycan, 2003; Hui, et al. 2004); in the event that this is not the case, that employee may feel exploited or abandoned. Clearly, management is a two-way relationship, and both managers and employees must be considered when examining the success of participative management.

2.3. Croatian and American managers' management styles and tendency to delegate

In 1996, Sikavica published the results of extensive research comparing Croatian and American managers. According to this research, the managerial style that Croatian managers most used was consultative (termed "democratic" by Sikavica). In contrast, American managers most used the participative management style. The research also showed that Croatian managers delegated tasks, responsibilities, and authorities to their employees in 62% of the cases, compared to 88% for the American managers.

Interestingly, the most often cited reason (82%) for not delegating by the Croatian managers was "unwillingness of their colleagues to accept the delegated authority and responsibility". Conversely, the most often reason cited by American managers (50%) for not delegating tasks was unwillingness on the part of both the manager and employees. However, when one considers that the American managers both delegate more, and also blame themselves more for not delegating, in comparison to the Croatian managers who delegate less and who blame the employees for not delegating, it seems plausible that Croatian employees are less willing to accept delegation than American employees.

2.4. The role of culture in participative management

Because most management theory is American in origin (Haire, et al.,1963; Hofstede, 1980; Adler, 1997), it must be considered whether what has proven to be successful in the United States can be universally applied with equal success elsewhere. Research has clearly shown the culture does affect the application of management principles outside of the United States (Hofstede, 1993; Aycan, et al. 2000; Alavi and McCormick, 2004; Hui, et al. 2004; Zander and Romani, 2004). Specifically, a

preference for participative management among both employees and managers has been connected to the cultural dimensions of power distance[2] and individualism/collectivism[3] (Sagie and Aycan, 2003; Hui et al. 2004).

3. METHODOLOGY

As part of a larger survey consisting of 33 questions, Croatian and American undergraduate students were given descriptions of the decision-making style of four kinds of manager: authoritarian (Manager 1); persuasive/paternalistic (Manager 2); consultative (Manager 3); and participative (Manager 4). The respondent was asked to indicate for which manager he or she would most prefer to work (Question 12) and which manager is most typical of the average manager in his or her country (Question 13).

All distributed surveys were in the English language, as the Croatian sample consisted of students who were studying at an English-language college and thus were qualified as being fluent in the English language.

After elimination of invalid surveys, the resulting Croatian sample consisted of 60 individuals, 29 men and 31 women. The American sample consisted of 48 individuals, 25 men and 23 women.

4. RESULTS

4.1. Question 12: preferred management style

Question 12 asked the respondents to indicate for which managerial type they would most like to work. The responses to this question are summarized in Table 1. Both the Croatians (61.67%) and the Americans (43.75%) preferred the consultative manager (Manager 3). 1.67% of the Croatians and 0% of the Americans preferred the authoritarian manager (Manager 1); 10.0% of the Croatians and 16.67% of the Americans preferred the persuasive/paternalistic manager (Manager 2); and 26.67% of the Croatians and 39.58% of the Americans preferred the participative manager (Manager 4).

The preference for the consultative manager held true among all gender groups with the exception of the American women, 60.87% of whom preferred Manager 4 (participative).

Thus we can see that both the Americans and the Croatians prefer the consultative managerial style (Manager 3), and secondarily the participative managerial style

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[2] The degree that a society accepts inequality in the distribution of power within that society (Hofstede, 1980, 2001; Hoppe 1990).
[3] The degree to which individuals in a culture define themselves as individuals or according to their place in groups (Hofstede, 1993).

(Manager 4). The American respondents were more evenly split between the two than the Croatian respondents, who more heavily preferred Manager 3.

Table 1: Which type of manager the respondent would most like to work under (Question 12).

	Croatian		
	All	Men	Women
Manager 1	1.67%	3.45%	0.00%
Manager 2	10.00%	6.90%	12.90%
Manager 3	61.67%	62.07%	61.29%
Manager 4	26.67%	27.59%	25.81%

	American		
	All	Men	Women
Manager 1	0.00%	0.00%	0.00%
Manager 2	16.67%	28.00%	4.35%
Manager 3	43.75%	52.00%	34.78%
Manager 4	39.58%	20.00%	60.87%

4.2. Question 13: most prevalent managerial style

Question 13 asked the students to indicate which managerial decision-making style was most prevalent in their country. The responses to this question are summarized in Table 2. The Americans indicated that Manager 2 (persuasive/paternalistic) best represented the managerial style most common in the United States (54.17%). Manager 1 (authoritarian) received 29.17%, Manager 3 (consultative), 12.5% and Manager 4 (participative), 4.17%. The Croatians, on the other hand, indicated that Manager 1 (authoritarian) was most representative of managers in Croatia (69.49%). Manager 2 (persuasive/paternalistic) received 18.64%, Manager 3 (consultative), 3.39% and Manager 4 (participative), 8.47%.

Thus we can see that the students believed Manager 2 (persuasive/paternalistic) to be more common in the United States, Manager 1 (authoritarian) in Croatia.

Again, we see differences in responses according to gender. The Croatian women overwhelmingly selected the authoritarian manager (Manager 1) as being most common in Croatia (70.97%). However, the second most-selected type of manager was a tie between persuasive/paternalistic (Manager 2) and participative (Manager 4), both with 12.90%.

The American men were more evenly divided between Manager 1 and Manager 2 than the American women. Although the men selected Manager 2 most often (48%), Manager 1 was selected by 36%. In contrast, 60.87% of the American women selected Manager 2, and only 21.74% selected Manager 1.

Table 2: Which manager the respondent believes to be most similar to the majority of managers in his or her country (Question 13).

	Croatian		
	All	Men	Women
Manager 1	69.49%	67.86%	70.97%
Manager 2	18.64%	25.0%	12.90%
Manager 3	3.39%	3.57%	3.23%
Manager 4	8.47%	3.57%	12.90%

	American		
	All	Men	Women
Manager 1	29.17%	36.00%	21.74%
Manager 2	54.17%	48.00%	60.87%
Manager 3	12.50%	12.00%	13.04%
Manager 4	4.17%	4.00%	4.35%

5. DISCUSSION

When examining the Croatian sample, it is clear that most Croatian undergraduate students (88.34%) want to be involved in the decisions being made which affect them. When asked which type of manager they would most prefer to work under, they overwhelmingly chose the consultative manager (61.67%), followed by the participative manager (26.67%).

However, when asked what management style they felt to be most common in Croatia, management styles which do not involve the employees were chosen (88.13%). Authoritarian was overwhelmingly chosen (69.49%), followed by persuasive/paternalistic (18.64%). Clearly, the sample would like to be involved in the decisions being made which affect them, but believe that in reality this is not the case.

These results are in contrast with Sikavica(1996)'s research, which indicates that Croatian managers most often use the consultative management style. One possible explanation for this difference could be simply a perception gap between managers and employees. Another could be that what actually occurs is pseudo participative decision making (Sagie and Aycan, 2003); the employees are given the opportunity to participate, but feel pressure to voice the wishes of management.

These findings also contradict the reason cited most often by Croatian managers in Sikavica's research for not delegating—that the employees do not want to be delegated to. Again, one possible reason for this discrepancy could be a perception gap between managers and employees. Another could simply be that the youthfulness of the Croatian sample causes them to endorse participative management more than their older counterparts would.

When examining the American sample, we see similar results to the Croatian sample; the students want to be involved, but feel that this is not the case. However, the results were not as uniform as with the Croatian sample. When asked which manager

they would like to work under, 83.33% chose a style which involves the employees. 43.75% chose a consultative manager, while 39.58% chose a participative manager. Most striking were the American women, 60.87% of whom chose the participative manager.

And, as was true of the Croatian sample, the American sample indicated that most managers in their country do not use a management style which involves the employees (83.34%). However, in contrast to the Croatian sample, which considered most managers to be authoritarian, 54.17% of the American sample believed most managers to be persuasive/paternalistic, while 29.17% believed most managers to be authoritarian.

The research presented here clearly indicates that today's young people want to be involved in the decisions being made by the company, but believe that in reality this will not be the case. This is in contrast to Sikavica's findings, which indicates that both Croatian and American managers involve the employees in the decision-making process. It also does not support the reason selected most often by Croatian managers for not involving the employees, namely that the employees are not willing to be involved. Further research is required, specifically from a larger and more representative sample size.

However, the good news is that the research clearly indicates willingness and even desire on the part of both Croatian and American young people to be involved in the company's decision-making. Thus, at a minimum, the workforce of both countries should become more and more willing to be involved, something which has been clearly linked to the success of the modern organization.

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MANAGING INNOVATION CHANGE AND CLUSTER FORMATION IN RUSSIA'S TOURIST INDUSTRY

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1. ECONOMY IN TRANSITION TO INNOVATION SYSTEMS

1.1. New management model in 'knowledge economy'

The transition from industrial to post-industrial economy necessitated deep structural changes in business management systems that developed countries successfully implemented in the 1970s. By the turn of the century, a number of developing countries have found themselves facing the same task of moving away from classic industrialism and toward postindustrial patterns of production, distribution, exchange, and management. The basic management system that dominated classic industrial economies, the so-called Fordist model, came to fruition in the mid- twentieth century in the United States of America. According to Jessop (1994) and Torlak (2005), the Fordist model exhibits the following essential features[1]:

- Mass production based on the assembly line techniques; high level of labour division and specialization; semi-skilled labour force performing one or several standardized job operations;

- A stable macroeconomic growth in production and consumption patterns based on mass production; rising productivity based on economies of scale; incomes rising proportionately to the rise in productivity; the growing demand is linked to rising wages; profit increases depend on full utilization of capacity and increased investment in improved mass production equipment and techniques;

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[1] B. Jessop, "Post-Fordism and the State," in A. Amin (ed.), *Post-Fordism* (Oxford: Blackwell, 1994); G. Torlak, "Understanding the Nature of Transition of Organizational Forms in the Contemporary World," *Journal of Economic and Social Research*, 4.2 (2005): 27 – 51.

- Social mode of economic regulation based on separation of ownership and management in corporations; trade union recognition and collective bargaining; wages indexed to productivity and retail price inflation; macroeconomic policies informed by the Keynesian idea of aggregate demand management. The government is playing the role of an economic stabilizer.

- Institutional regulation, including such patterns as the consumption of standardized commodities by the 'middle class,' wage-earning society; provision of standardized public goods by the state; welfare state, and hierarchical, bureaucratic and multidivisional organizational structures.

Over the last three decades developed economies saw the rise of a new management and regulation system, which some scholars describe as the Post-Fordist model of production.[2] The main driving forces of this shift included the revolution in information and communication technologies; internationalization and globalization of the world economy; and changes in the management paradigm in response to new competitive pressures from the newly industrialized countries. The American management system was confronted with Japan's model that provided low cost, high-tech products, and promoted innovative-driven development of business. Japan was followed by South Korea, Hong Kong, Taiwan, and Singapore, each featuring new techniques of individually successful adaptation to the realities of global market economy. The extensive use of knowledge, learning-by-doing, benchmarking and best practices has been common to innovative strategies demonstrated by all "Asian Tigers."

Before too soon, it has been acknowledged that in the modern economy best market opportunities go to firms that have developed an ongoing ability to innovate and change in order to produce unique and high quality goods and services. The present stage of economic development is the transition to the unprecedented degree of knowledge importance in production. Judging by the scope and magnitude of knowledge utilization that we are witnessing today, it is arguably a qualitatively new regime of production. Knowledge is now recognized as being the leading source of economic growth.

The main characteristics of the Post-Fordist model are:

- A flexible production processes; flexible multifunctional working force; cooperation in work teams; increasing role of information and communication technology in all business processes; new organizational forms that promote innovations; a shift from bureaucratic to organic organizational structures.

- Macroeconomic growth is based on diversified and innovative production; increased demand for differentiated goods and services; competitive advantage and profits rest on full utilization of flexible capacity, accumulation of key competences, investment in advanced technologies, inventory and renewing the company's product, processes, and services.

- Social regulation pattern is a Schumpeterian workfare state that restructures the economic and social functions of the Keynesian welfare state. It aims to boost the

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[2] E.g., D. Thursfield, *Post-Fordism and Skill: Theories and Perceptions* (Aldershot: Ashgate, 2000); M. Koch, *Roads to Post-Fordism: Labour Markets and Social Structures in Europe* (Aldershot: Ashgate, 2006).

competitiveness of the national economy by intervening on the supply side, which subjects social policy to the inevitable limitations of international competition. In this model, the state's power is restricted by the global market forces; in fact, it may appear that regulation and policy making initiatives now lie predominantly with transnational and global actors, thus leaving the national authorities an unenviable task of implementation of the decisions formulated elsewhere.

The post-Fordist model of production has allowed developed countries of the North to restructure their production systems and move into the new phase of capital accumulation by moving production facilities overseas. It has also shifted the emphasis from the industrial to service sectors of the economy. The service sectors have generally showed themselves as more open and susceptible to the post-Fordist changes; it has taken some more time to restructure production patterns in industry.

Based on the experience of the developed industrialized societies, it might be expected that the service sectors of a developing nation's economy will catch up with the new mode of production earlier than the rest of the economy. In what follows, we look at the transition problems in Russia's tourist sector, attempting to verify this hypothesis and lay out facts for further study.

1.2. Innovation-related changes in Russia's economy and tourism sector

Russia's real Gross Domestic Product (GDP) growth averaged 6.7 per cent in 2006, extending a series of years of strong GDP growth during 1999-2005[3]. Russia's economy is 9-th in the world as to GDP value. Economic growth in 2006-07 is expected to continue to be underpinned by solid domestic demand and high world oil and gas prices. Nevertheless the Federal government worrying of energy and raw materials' export dependence in economy growth puts aims of economy diversification, international competitiveness' rise and transit to innovation-led growth.

The Strategy for the Development of Science and Innovations in Russian Federation for the Period till 2015 emphasizes creation of the national innovation system as a national priority. Russia's innovation potential is probably greater than that of most countries at comparable levels of per capita GDP, given its large science base and human capital endowments. Nevertheless there is a striking imbalance between the innovation potential and the disappointing outputs in terms of innovation. Share of Russia in the world high-tech production is fallen from 8% at 1991 to 6% in 2005 (to 1%, except arms producing sector).[4] There is also considerable scope for innovation, in view of the need to increase international competitiveness of enterprises and economy sectors.

But Russian science is in crisis condition caused to the lowing finance. R&D expenditures in 2004 were 43% of the level of those in 1990; and share of R&D expenditures in GDP has fallen from 2.03% in 1990 to 1.17% in 2004.[5] In 2005 R&D expenditures amount to 231

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[3] Ministry of Economic Development and Trade of Russia: O tekushchej situatsii v ekonomike Rossijskoj Federatsii v janvare-sentjabre 2006, http://www.economy.gov.ru [Accessed 26.10.2006]

[4] Pashin V.M. Report to the Council on Science, Technology and Education by the President of Russian Federation: http://www.kremlin.ru/appears/2006/10/17/2000_type63378type63381_112647.shtml [Accessed 17.10.2006]

[5] Ministry of Education and Science of Russia: Strategija razvitija nauki i innovatsiy v Rossijskoj Federatsii na period do 2015 goda, p. 9, http://www.mon.gov.ru/science-politic/conception/ [Accessed 16.02.2006]

million roubles that is less than a half of 1990 level.[6] More than 50 000 researchers left Russia for abroad; and one of main reasons for the 'brain escape' is low wages in the science sector (an average monthly wage at the beginning of 2005 was near $300). [7]

The public science sector is large and fragmented. It consists of 450 organizations in the system of Russian Academy of Sciences; and more than 3500 research organizations in different economy branches and 600 higher educational organizations in the Ministry of Education and Science' system.[8] It is largely cut off from the enterprise sector. Science, educational sector and industry are developed separately, with its different plans and programs. Closing this gap is the first major task for Russian innovation policy.

The second is to stimulate greater private-sector involvement in R&D. Now private-sector share in total R&D funds is 31.4%.[9] "R&D average expenditures of enterprises are less than 1 per cent of production value. Domestic companies are buying not technologies at first, but equipment, what covers 60% of its development funds. They spent less than 2 per cent of funds to bye patents, licenses and new technologies", said V. Putin.[10] Private-sector R&D is too low, as to level of the most industrialized countries, and stimulating it must be regarded as a major priority of the Strategy implementation. As to report of D. Livanov, the Director of the State Science and Innovation Policy Department in the Ministry of Education and Science of Russia, financial measures stimulating knowledge creation "would be counted for a group of indicators, such as growth of public R&D expenditures to 2% of GDP in 2010; rise of business R&D expenditures to 55% in total R&D funds; growth of higher education sector' share receiving funding for R&D to 15% in 2010". [11]

Economically, creation of a national innovation system in Russia would mean an attempt to skip over the industrial phase of development characterized by a Fordist model of management. However, Russia has not yet developed a full-fledged industrial economy or its concomitant welfare state and middle-class society. Notably absent are such typical innovation movers of an industrial economy as large-size corporations whose R&D departments would take a lead in private financing of innovative developments and facilitate new products' entry in the market.

Parallel creation in Russia's economy of organizational forms of the industrial and postindustrial modes of production and their respectively different institutional environments poses a problem for policy makers, as each of these modes of production must be regulated according to its own logic. As a result, the state policy aimed at stimulation of production on both macro- and micro-levels of the economy lacks coherence and cannot but suffer from incongruities.

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[6] Council on Science, Technology and Education by the President of Russian Federation: Stenograficheski otchet o zasedanii Soveta pri Presidente Rossijskoj Federatsii po nauke, technologijam i obrazovaniju, http://www.kremlin.ru/appears/2006/10/17/2000_type63378type63381_112647.shtml [Accessed 17.10.2006]

[7] Strategija razvitija nauki i innovatsiy v Rossijskoj Federatsii na period do 2015 goda, p. 10, http://www.mon.gov.ru/science-politic/conception/ [Accessed 16.02.2006]

[8] Federal State Statistics Service: Russia in Figures, http://www.gks.ru/free_doc/2006/b06_01/2-6-13.htm [Accessed 05.04.2006]

[9] Russian Federation. Country Profile / Science&Technology, http://www.uis.unesco.org/profiles/EN/GEN/countryProfile_en.aspx?code=6430 [Accessed 20.03.2006]

[10] Putin V.V. Speech to the Council on Science, Technology and Education, http://www.kremlin.ru/appears/2006/10/17/2000_type63378type63381_112647.shtml [Accessed 17.10.2006]

[11] Livanov D.V., the Director of the State Science and Innovation Policy Department, 2004. – Vystuplenije na zasedanii kollegii Minobrnauki Rossii "Ob osnovnyh napravlenijah inniovatsionnoy dejatel'nosti", http://www.mon.gov.ru/news/report/livanov/820/ [Accessed 17.11.2004]

It appears that Moscow looks up to Bejing, attempting to emulate China's successful modernization strategies. F.e., Governor of Krasnodarsky krai said at the conference 'Appreciation of the Social and Economic Development of the Region in 2006': "Making use of Chinese experience, we are creating the vertical of power to organize local investment work".[12] In China, innovative firms and industries are mostly found in specially established export processing zones, while the rest of the economy is subject to the traditional Fordist model of mass production. Parallel existence of the industrial and postindustrial systems is made possible by their geographic segmentation. The Russian state has instead chosen the policy of the state-promoted mergers and agglomeration of firms in few so-called "national champions" that are vested with the task of active penetration of the world export markets. Judging by all indications, these industrial giants will be called upon to play the role of the national innovation motors in their respective sectors of the economy. On the other hand, direct borrowing from the Chinese experience can be seen in the adoption of laws that mandate creation of special economic zones, special tourist and recreation zones in particular.

The Federal Law N 116 "On Special Economic Zones in Russian Federation" accepted in July, 2005 firmly establishes that "special economic zones are created with purposes to develop high-tech industry and new products manufacture". [13] According to this Law, there could be formed industrial, technolology-adoptional, tourist & recreation zones. The decision on a special economic zone' creation is adopted at the Government of Russian Federation. Modernization and innovation in these zones will be encouraged by means of special tax breaks and other privileges, and through the states' direct participation in projects' financing. "What is the characteristic of these special economic zones, both recreational or industrial and scientific-technological, - said President V. Putin, - It is special administrative, customs and taxation regime".[14] There may also be scope for targeted initiatives like the creation of technoparks and schemes to support innovative start-ups.

The government's emerging innovation policy lays on reforming the state science sector and strengthening the intellectual property rights (IPR) regime. The public science potential as an engine of knowledge creation is enormous, but realizing that potential will require a special reform. The Strategy for the Development of Science and Innovations in Russian Federation is planning in this context measures to rationalize the organizational structure of the sector, reduce the number of direct recipients of budgetary R&D funds and shift to greater reliance on project-based rather than institutional financing of state-funded research. With respect to IPR, the liberalization of the regime for assigning IPR to the results of publicly funded research is an important step forward, planned in the Strategy. But there is a need to improve not only IPR protection but also the specification and allocation of IPR. It would also be desirable to increase the penalties for IPR violations. Increased judicial understanding of IPR issues will be important, especially in the regions.

However, realization of the Strategy objectives are hampered by the apparent problems of management: weak cooperation between related and mutually dependent enterprises; the

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[12] Tkachev A.N., the Governor of Krasnodarsky krai, 2006. – Vstupitel'noje slovo na soveshchanii "Otsenka sotsialno-ekonomicheskogo rasvitija kraja v 2006 godu, prognoz do 2009 goda i zadachi na predstojashchii period", http://economy.kubangov.ru/news/events/25_12.html [Accessed 22.12.2006]

[13] Russian Federation. Federalny Zakon "Ob osobyh economicheskih zonah v Rossijskoj Federatsii" N 116-FZ, 22.07.2005, http://www.miiris.ru/docs/rtf/fz_116_2005.rtf [Accessed 10.08.2005]

[14] Putin V.V. Press-conference on 1.02.2007, Moscow. – Stenografichesky otchet o press-konferentsii, http://www.kremlin.ru/appears/2007/02/01/1219_type63380type63381type82634_117597.shtml [Accessed 01.02.2007]

absence of coordination; the underdevelopment of mechanisms for the realization of the nationally promulgated aims and priorities; under-estimation of the centrality of innovation processes by certain organs of the state administration and local government.

The quality of public administration will impinge directly on the success of recent initiatives aimed at fostering innovation. Moreover, the poor quality of the state administration impinges on structural reforms in almost every other field, since it limits the government's ability to implement any policies that require administrative or regulatory capacities of a high order. Effective implementation of the government's new administrative reform Concept, adopted in October 2005, would also help curtail corruption that is one of the most preventing factors of business development.

The tourism industry development may contribute significantly in Russia's transition to the 'new economy' and innovation-led growth. Now tourism is the most important item in Russia's trade in services, representing more than 50% of export revenues and import expenditures.[15] According to the WTO data (2005), Russia is ranked 21st in the world rating of tourist destinations. It holds a 1.6 percent share of the global tourist market, with $5.2 million annually in tourist income and $15.7 million in tourist spending (ranked 9th in tourist spending).[16]

Domestic demands for tourist sector services are quite high, but needs have potential Russian tourists are satisfied mainly abroad. Russian tourist firms and enterprises of the sector either do not offer internationally competitive tourist products as yet, or lag behind in terms of the aggressive marketing of these products. It is a trend to reducing the share of services rendered to population by Russian hotels, tourist firms and resorts in total market services (table 1).

Table 1. Structure of market services rendered to population in 2001 - 2005
(as percentage of the total).

Market services	2001	2002	2003	2004	2005	
					Per cent	Bln. RUR
Total services rendered	100	100	100	100	100	2264.7
including:						
everyday	12.2	11.7	10.7	10.5	10.0	226.9
transport	26.6	24.2	22.9	22.2	21.7	490.9
communication	12.1	14.8	16.7	17.6	18.4	415.8
housing	3.7	4.3	4.5	4.8	5.2	118.3
communal services	15.1	16.1	17.3	17.4	18.7	422.8
hotels	3.0	3.0	2.9	2.9	2.6	58.8
cultural	1.9	2.0	2.3	2.5	2.4	55.2
tourist	1.5	1.4	1.3	1.3	1.4	32.5
physical culture and sport	0.4	0.4	0.4	0.5	0.6	14.6
medical	4.7	4.9	4.8	4.9	4.8	108.0
resorts and health improvement	2.5	2.1	1.8	1.7	1.6	36.5
veterinarian	0.3	0.3	0.3	0.2	0.2	4.7
legal	4.8	3.9	3.2	2.7	2.3	51.8
educational	6.9	6.7	6.7	6.8	6.5	147.3
other	4.3	4.2	4.2	4.0	3.6	80.6

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[15] Federal State Statistics Service: *Russia in Figures,* http://www.gks.ru/free_doc/2006/b06_11/25-01.htm [Accessed 20.10.2006]

[16] *Osnovnye pokazateli razvitija turizma, izdanie 2005 goda* (UN WTO, 2005)

Source: Federal State Statistics Service (Gosstat), 2006.

According to the poll of VCIOM, Russian Centre for Social Opinion Study, done in July, 2006, 34% of respondents preferred to spend their vacations abroad; 52% of respondents planned to stay home; 8% planned to visit Russian coast of the Black Sea and the rest – to travel to other regions of Russia.[17] Tourism development in the country is blocked at consumer side with poverty of population (see table 2).

Table 2. Distribution of population by per capita average money income
(percentage to the total).

	2002	**2003**	**2004**	**2005**
Population, total	100	100	100	100
of which with average per capita monthly money income, RUR:				
less than 1500.0	17.3	9.9	6.2	3.2
1500.1- 2500.0	23.0	17.5	13.2	8.9
2500.1-3500.0	18.1	16.7	14.4	11.5
3500.1-4500.0	12.6	13.4	12.8	11.5
4500.1-6000.0	11.8	14.3	15.0	15.0
6000.1-8000.0	8.2	11.4	13.4	14.9
8000.1-12000.0	6.1	10.2	13.7	17.3
over 12000.0	2.9	6.6	11.3	17.7

Source: Federal State Statistics Service (Gosstat), 2006.

The challenge confronting policy-makers is to facilitate the tourism industry's transition into a period of self-sustaining, investment- and innovation-led growth. This will require a range of institutional and structural reforms while maintaining sound macroeconomic management aimed at creating better framework conditions for business and at growth of living standards of population.

The sector of tourism demonstrated high capability to innovation changes during the transition period in Russia. At first, there were changes in organizational forms and property: state enterprises in core tourism industries, like accommodation and catering, became corporations and private firms. Then a boom of new firms' and new tourism capacities' creation began. 8636 tour operators and 12560 tourist agents in 2005 sold package tours to 7.5 million internal and 5.4 million foreign tourists at Russia's market.[18] Technological modernization, new services' adoption, stuff training and learning are still going on intensively.

As a matter of fact, tourism sector in Russian economy is one of the most integrated in the world markets and globalization processes. The tourism industry now adapts to trends in the world economy and changes in consumers' demand. Innovations include development of new forms of tourism, such as extreme and adventure, ecological and religious tourism; opening of new markets and new destinations; new tourist products offering; electronic business (e-marketing, e-commerce, Web sites of destinations, resorts and hotels) application; integrated electronic management systems in the accommodation sector. Development of tourist

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[17] VCIOM: *Rossijane po-preznemu predpochitajut otdyhat' na dache*, http://www.regnum.ru/news/658155.html [Accessed 16.06.2006]

[18] Federal Agency for Tourism of the Russian Federation: Statistika turizma v Rossii za 2004-2005 g.g. (po dannym Gosstata, http://www.russiatourism.ru/rus/object.asp@id=1207 [Accessed 14.04.2006]

industry results in raised sales of tourist services for population from 1477.7 million roubles in 1995 to 33848.8 million roubles in 2005.[19]

However, Russian tourist firms do not offer substantially and radical innovative tourist products. Novelty of organizational forms, technologies, knowledge, processes and products is new only at the internal market, although it has positive impacts on improving products and reducing the cost of business processes.

Innovative changes are significant not for all tourist industry. Innovations, based on 'catching-up' strategies, have become a significant part of development mostly for large and medium sized enterprises with private or corporate property. Continuous innovations have become a factor of competitive growth for them.

State and municipal enterprises still stagnate. In 2005 share of state and municipal hotels in Russia was 46%, and share of state and municipal other forms of lodging – 39, 7%.[20] Most of them are unprofitable and can't attract investments for modernization. The more they are not in a position to set aside funds for research and development. The corporate governance of many state-controlled companies is problematic and state interference in the operations of such companies often distorts the development of the companies themselves and the markets in which they operate.

The state bureaucracy is inefficient and often corrupt. It is cited by foreign investors as one of the principal obstacles to investment in Russia today. Companies at domestic market spent about 10% of working assets to administrative barriers overcoming.[21] As possible, bureaucratic barriers to enter Russian market causes a little share of tourist firms and hotels in foreign property: 1% of foreign hotels and 0.3% of other accommodation facilities in 2005.[22]

The innovation process does not function in a satisfactory manner in the destination-oriented small-business tourism industry. Small firms do not show innovative activities. The main drawback is a lack of staff and funding. Russia is at the 148 position in the world as to bank credits volume for small business, and only 1/5 of small enterprises' (SME) credit needs are satisfied in a year.[23] Small tourist firms are working in the hard business environment. The state bureaucracy poses a particularly heavy burden on small and medium-sized enterprises, which are often less able to defend themselves than are large companies.

There is no long term government strategy now to help grow a sustainable Russian tourism industry and better position it at globalizing tourist market by making it more robust and flexible. The set of upper-named negative factors restricts tourism sector possibility to growth. It results in lowing number of foreign visits to Russia in 2005 on 10.6% compared

[19] Federal State Statistics Service: Russia in Figures, http://www.gks.ru/scripts/db_inet/dbinet.cgi [Accessed 20.10.2006]

[20] Federal Agency for Tourism of the Russian Federation: Statistika turizma v Rossii za 2004-2005 g.g. (po dannym Gosstata, http://www.russiatourism.ru/rus/object.asp@id=1207 [Accessed 14.04.2006]

[21] E. Shohina, "Rastit' maly biznes*", *Strategija i Konkurentosposobnost*, 5 (8), 2006: 23

[22] Federal Agency for Tourism of the Russian Federation: Statistika turizma v Rossii za 2004-2005 g.g. (po dannym Gosstata, http://www.russiatourism.ru/rus/object.asp@id=1207 [Accessed 14.04.2006]

[23] "Potrebnosti malogo biznesa v kreditah sostavljajut 750 mlrd – 1 trln rub ejegodno", *Strategija i Konkurentosposobnost*, 5 (8), 2006: 7

with 2003 year. As the president of Russian Union of Tourism Industry said, it was official statistics, but the biggest tour operators have fixed foreign arrivals' fall last year on 20-25%. [24] According to WTO estimates, Russia could potentially accept up to 40 million of foreign tourists a year provided that tourist infrastructure is duly developed. The current condition of tourist infrastructure inhibits growth in the sector. Among other factors that block reorientation of consumers towards domestic service providers, substandard quality of service, labor, and management should be named first.

Presently factors restraining development of entry and internal tourism according to tour operators opinion are (table 3):

Table 3. Major factors restraining tourism development (opinion of Russia's 115 biggest tour operators, questioning results 2005).

Rank	Factors restraining development of tourism in Russia	Situation was estimated as a critical		Situation was estimated as problematical		Situation was estimated as non-problematical	
		Number of polled	Per cent	Number of polled	Per cent	Number of polled	Per cent
1	Growth of prices for main tourist services	65	56.5	37	32.2	13	11.3
2	Lack of advertisement and promotion of Russia's destinations	60	52.2	46	40.0	9	7.8
3	Deficit of accommodation facilities in regions	54	47.0	43	37.4	18	15.7
4	Deficit of accommodation facilities in Moscow and St. Petersburg	53	46.1	26	22.6	36	31.3
5	Deficit of modern tourist buses	51	44.3	47	40.9	17	14.7
6	Lack of tourist information translated to foreign languages in Russia	49	42.6	58	50.4	8	7
7	Tourist misgivings about terrorist acts in Russia	37	32.2	64	55.7	14	12.2
8	Undeveloped entertainment industry	37	32.2	47	40.9	31	26.9
9	Deficit of modern cruise ships	34	29.6	30	26.1	51	44.3
10	Criminal situation in the country	33	28.7	68	59.1	15	12.2
11	Complicated order of issuing Russian visas and its high cost	31	27.0	62	53.9	22	19.1
12	Non-hospitable behavior of the militia, frontier-guards and customs officials, their abuses of power	30	26.1	60	52.2	25	21.7
13	Competition with foreign tour operators "intercepting" tourist flows	29	25.2	46	40.0	40	34.8
14	Official registration order for foreigners	28	24.3	63	54.8	24	20.9
15	Political image of Russia in the world	26	22.6	64	55.7	25	21.7
16	Tax legislation in tourism business	26	22.6	55	47.8	34	29.6
17	Low services quality in railway transport sphere	24	20.9	56	48.7	35	30.4
18	Currency legislation in tourism business	22	19.1	55	47.8	38	33.1
19	Low services quality in hotels	21	18.3	74	64.3	20	17.4
20	Lack of qualified tourist guides	19	16.5	65	56.5	31	27.0

Source: Russian Union of Tourism Industry.

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[24] RATA-news "Rossia proigryvaet konkurentnuju borbu za privlechenie inostrannyh turistov", No 1376, http://www.ratanews.ru/news/news_7102005_2.stm [Accessed 7.10.2005]

As these indicators continue lagging behind European standards, tourist demand is being increasingly satisfied not in Russia. The Russian Union of Tourist Industry reasoned that tourism sector development is reduced with unfavourable climate for investments and taxation system that influence on the deficit of high-class hotels and on the high level of costs. The week's tour Moscow – St. Petersburg rise a twice during last years and now it costs 1300 – 1400 euro to European tourists compared with 500 – 700 euro for the similar tour in Hungary or Chekh Republic. [25]

The state government is planning to solve some problems of tourism sector international competitiveness with special economic tourist zones establishment where fiscal incentives are expected to stimulate investors and innovations. May be it helps to involve foreign well-known hotel chains in domestic tourist supply development? Innovation processes in Russia's tourist sector need world leaders to facilitate radical and internationally competitive innovation changes.

2. CLUSTER FORMATION IN TOURISM SECTOR

2.1. Opportunities for clusters formation in tourism

As well as having a positive impact on economic growth and development overall, tourism can also ply a relevant role on regional development, and may help to even out some of the economic inequalities between different parts of Russia (f.e. European and East – Siberia, Pacific Coach regions). East regions may be able to use tourism to make lower raw materials' dependence in regional incomes, diversify their economy and reduce large out-migration. Various forms of tourism, even eco-tourism in the situation of tourism infrastructure shortage, have been used to promote the development of peripheral regions in developing countries. Finally it has been suggested that tourism may also encourage entrepreneurship and the development of new small businesses in depressive regions and locations. Moreover, tourism can be a vehicle for tolerance and better understanding among Russia and other countries and people. That is why Federal and regional governments have undertaken a number of initiatives aimed at defining a rather more active direct role for the state in tourism development, investing and intervening on its own and in partnership with business. Innovation-driven growth of tourism sector is required to increase the competitiveness of regional economy, and to ensure long-term sustainability of tourism development.

At destination level, tourism is a very heterogeneous and fragmented with many different suppliers industry, which is defined at the time of visitors' consumption. The tourism industry is well known for its "packaging" of tourism products together into a tour or holiday. Visitors consume a whole package of services which have to be provided by a very large number of suppliers. Different branches and enterprises in tourist industry are interdependent and interconnected in the complex process of creation and offering of tourist products. The tourism suppliers compete against one another. But they are also forced to co-operate to a certain extent when customers need additional services or a package of services. That is why partnership is a wide-spread organizational scheme in tourism, which includes simple forms, f.e. two businesses jointly developing a product for a specific market, and more complicated forms such as marketing vertical and horizontal systems, strategic alliances.

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[25] RATA-news "Rossia proigryvaet konkurentnuju borbu za privlechenie inostrannyh turistov", No 1376, http://www.ratanews.ru/news/news_7102005_2.stm [Accessed 7.10.2005]

New tourism structures are generated in modern era of globalization to improve competitiveness of business and destinations. Among them clusters as new organizational forms combining competition and cooperation are recognized as important blocks of the national innovation system's architecture. Encouragement of cluster formation within the geographic span of the territory of tourist destination becomes a key strategy for stimulating innovations in tourism.

The early discussions focused on clusters with international innovation importance and leading world market positions, such as the IT cluster in Silicon Valley, or the telecom cluster in Finland. This characterization of clusters has discouraged many regions with no realistic chance of achieving a similar level of performance. More recent research indicates that there could be many different successful clusters, both territorial and sectoral, each taking a unique, individual role. Among them are clusters and micro-clusters in tourism, differentiated by their specialization in a particular stage of their field's value chain, by their focus on specific geographic areas, or by targeting selected customer needs or market segments.

"Clusters are not unique, - said M. Porter, - however; they are highly typical - and therein lies a paradox: the enduring competitive advantages in a global economy lie increasingly in local things - knowledge, relationships, motivation - that distant rivals cannot match".[26] Clusters became a striking feature of virtually every national, regional, state, and even metropolitan economy, especially in more economically advanced nations.

Until recently however, there has been less discussion about tourism clusters (Rosenfeld, 1997; Rex, 1999; Nordin, 2003). This begs the question whether there are some characteristics of tourism industry and its regional imprint that make enterprises producing tourist products more or less amenable to being identified as a cluster or engaging in the processes associated with clustering. It is important to make a distinction between the terms cluster and clustering.

Clusters may be defined as groups of companies and institutions co-located in a specific geographic region and linked by interdependencies in providing a related group of products and/or services; as geographic concentrations of interconnected companies and institutions in a particular field.[27] Clustering is interpreted as a means of facilitating activity between participants in a cluster, as a process of cluster creation.

Tourism is unthinkable without the spatial dimension. It is the local attractions that give the tourist products of the destination their distinct characteristics. And tourist industry production takes place in different partnership schemes and forms. Is it means that co-located enterprises of tourism and tourist-connected industries at the destination territory are in fact engaged in cluster, or it is necessary to create specific projects to transfer territorial tourism complex to a new form of cluster?

Clusters differ from other forms of cooperation with some distinguishing features:

- A host of constant linkages among cluster members that results in a synergy effect of their interaction

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[26] M. Porter, (1998): Clusters and the new economics of competition, *Harvard Business Review,* Vol. 76, No. 6: p.77
[27] This definition builds on M. Porter, (1998)

- Leader organization existence which use world-class technology and practices, determines long-term strategy of joint development to enhance productivity and stimulate innovation-driven combined growth

- Joint infrastructure, managing, information, control, expertise and learning systems, technology pools, total quality management

- Coordination of international and domestic business activities among cluster members

- Joint investment projects and programmes of development

Rather than being fixated on becoming a global innovation center, of which there will always be just a few, theory suggests that regional co-located enterprises can succeed by identifying what specific role they can play based on improving their current position. In a typical tourism cluster, for example, the quality of a visitor's experience depends not only on the appeal of the primary attraction but also on the quality and efficiency of complementary businesses such as hotels, restaurants, shopping outlets, and transportation facilities. Because members of the cluster are mutually dependent, good performance by one can boost the success of the others.

Other benefits of cluster participation arise in marketing. A cluster frequently enhances the reputation of a destination, making it more likely that potential visitors will turn to a products produced there. Beyond reputation, cluster members often profit from a variety of joint marketing mechanisms.

Clustering is a process involving government at multiple levels, companies, teaching and research institutions, and institutions for collaboration. Including science and education, as well as government in the value chain is a new way to compete effectively. Training and learning processes among members and a more academic approach to the industry create personalized know-how in the form of human capital and advanced technologies. Optimum learning is possible at the level of the destination, where there is face-to-face communication between customers, management and those in the field. The impact of high-qualified personnel activity results in the rise of key competencies in sophisticated services producing. Productivity increases when an enterprise can have access to the pool of sector-specific know-how. The diffusion of knowledge stimulates innovation and ensures the gradual introduction of innovations.

Tourism policy at the destination level can be used to create framework conditions that will help to develop and improve the innovation process throw clustering. Cluster projects can accelerate the process of territorial tourism complex restructuring.

2.2. Problems of cluster creation in Russia's tourism sector

Clustering is new for Russia. The first cluster project in tourism emerged in the Orenburg region in 2006. There are plans to form tourism clusters in the Baikal Lake area and in Sochi city.

Opportunities for successful tourism clustering in Sochi are underpinned with the Federal Target Programme for the Development of Sochi in 2006–2014, a comprehensive plan aimed at upgrading the city to the level of a year-round, world-class destination. Besides at the territory of Krasnodar region, in which the city is included as an administrative unit, special tourism & recreational zone will be created from the beginning of 2007. It means that investors and innovation firms in tourism sector will be encouraged by special privileges, and the State will participate in financing of infrastructure projects. The Federal government considers the city of national importance and takes special efforts aimed at its development. In June 2006 Sochi had been selected as a finalist city to host the 2014 Winter Olympics. Russian government has committed to a US$35 million Legacy Fund to finance the overall maintenance and operation of Sochi Olympic Park and to contribute to the sustainable use of nine Olympic venues, should Sochi be successful. [28]

Sochi is the only specially designated tourism zone and the largest resort region of the Russian Federation. It stretches for 147 km along the Black Sea coast of the Krasnodar region and includes the Krasnaya Polyana mountain resort area. Sochi's natural resources - the unique subtropical climate, pure mountain air, and seashore provide excellent conditions for medical treatment and recreation/amusement. Besides the climate itself, there are hydrogen sulfide thermal springs, curative mud, and different kinds of mineral water springs. Sochi encompasses several specially protected natural zones: the Caucasian National Biosphere Reserve, a UNESCO World Heritage site; Sochi National Park, the Russian Federation National Wildlife Sanctuary, and over 30 botanical gardens and parks.

Sochi was characterised by the concept of tourism as an activity organized for social goals along corporative lines: health tourism to Sochi before 1990-es was up to 70% covered by Trade Unions as an incentive for their members. Since a "resort" has been defined in Russia as a place primarily for health treatment rather than leisure, the hospitals, sanatoria and balnearia have always been the responsibility of the Ministry of Health. There were created 20 specialized medical and research centres in the city. The first Tourism Institute in Russia was created in Sochi in 1989, and since then it has been upgraded to the State University for Tourism and Recreation. Over 250 spas were profiled in their application of treatment methods, accordingly they provide treatment against different types of health problems: from nervous and cardio-vascular - to skin problems. The spas have always been advanced in their diagnostic and medical treatment equipment, special attention has always been given to promoting healthy ways of life.

The new age of tourism is starting in Russia yet in the end of 1990-es, as human resource issues are being tackled. Over 2 million tourists visit Sochi annually, and health and leisure tourism are the city's leading sources of economy.[29] It has always been a city of recreation and health, and the rush was always to the new, large, the prosperous, and the fashionable. Fortunately, there is excellent cooperation between Federal and regional governments, city leaders, the universities, and the tourism sector, which makes it possible for effecting innovation changes with local resources.

The Federal Target Programme for the Development of Sochi (FTP) include projects with 60/40 public and private financing: 200 km of new roads and railways; state of the art modern

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[28] *Sochi 2014 Guarantees a Bright Post-Games Future,* http://sochi2014.com/52367 [Accessed 19.02.2007]

[29] *10 Things to Know About Sochi*, http://sochi2014.com/35506 [Accessed 19.02.2007]

airport, able to serve 4 million passengers per year; 700 km of new fiber optic networks; doubling of the energy capacity; doubling of the number of hotel rooms; creation of infrastructure for environmental preservation; construction of modern utility infrastructure (water supply, sewage, two modern utilization plants). The development of more than 25,000 new hotel rooms of 3-star to 5-star quality is planned and guaranteed by the FTP, including 3,000 rooms in Sochi's Krasnaya Polyana region. [30]

Sochi Research Centre of the Russian Academy of Sciences is now working on the project granted with the Russian State Science Fund to create methodology of tourism clustering in a framework of special economic zones.

Organizations that could benefit the most from cluster formation in tourism still underestimate the significance of clustering processes and have poor understanding of its methodology. Therefore, the spread of relevant and task-specific knowledge and the currently underdeveloped elements of strategic planning that would aim at creation of regional clusters should be seen as most promising strategies of growth in Russia's tourist sector.

Tourism-related activities require careful analysis on the part of public administrations, which must be involved both in the supply side of innovations and in terms of regulating resource use and the relationships between all stake-holders. What, then, are the reasons for public policy intervention in a market economy? As regards, -said F. Malerba, - for example, technical change and other kinds of innovations, two conditions must be fulfilled for there to be reasons for public intervention in a market economy. First, the market mechanism and capitalist actors must fail to achieve the objectives formulated. A problem of imperfect self-organization must exist. Second, the state (national, regional, local) and its public agencies must also have or be able to build the ability to solve or mitigate the problem.[31] The first of these conditions is present in Russia, but the second is doubtfully caused to expertise' deficit. Some period of training experts on the foreign cluster programmes is necessary.

Specifically, the aim of cluster creation adds the following issues to the strategic agenda.

1. Choosing locations. Probably most of Russia's regions want to develop tourism in order to get well-known economic benefits. Globalization has led many companies to move their operations to locations with low wages, taxes, and utility costs. And regional policy-makers are expecting to attract some leading corporations to participate in clustering initiatives. But locations with those advantages often lack tourist infrastructure, sophisticated suppliers and workers, and other cluster benefits that can more than offset any savings from lower input costs. Therefore location decisions must be based on both total systems costs and innovation potential, not on input costs alone. Cluster thinking suggests that every product line needs a home base, and the most vibrant cluster will offer the best location.

2. Facilitating access to information resources. Tapping into the competitively valuable assets within a cluster requires personal relationships, face-to-face contact, a sense of common interest, and "insider" status. Tourism enterprises must foster ongoing relationships with government bodies and local institutions such as utilities, schools,

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[30] *Facts & Figures,* http://sochi2014.com/36870 [Accessed 19.02.2007]

[31] F. Malerba, *Sectoral systems of innovation: concepts, issues and analyses of six major sectors in Europe* (New York, N.Y.: Cambridge University Press, 2004)

and research groups. Nevertheless the absence of relevant information of cluster opportunities and advantages brings about non-interesting in such a way of joint development. If the understanding of the cluster concept will grow may be domestic tourism business will initiate and support clustering. Cluster evolving business needs analysis must be done for this purpose too.

3. Changing the organization of tourism at national and regional levels. A key development in the Cluster is the changes in the organization of tourism at national and regional levels. Present administrative departments of tourism with bureaucratic controlling functions must be reorganized into sectoral development agencies. Executives' long-term priorities will be working to promote a higher plane of competition. They can begin by rethinking the role of tourist associations, which often do little more than lobby government, compile some statistics, and host social functions. Associations can provide a forum for the exchange of ideas and a focal point for collective action in overcoming obstacles to productivity and growth. Associations can take the lead in such activities as establishing university-based testing facilities and training or research programs; collecting cluster-related information; offering forums on common managerial problems; investigating solutions to environmental issues. A new Strategic Body for Tourism is needed with responsibility to strategic management of sectoral innovation system.

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RISK AVERSION OF CROATIAN BUSINESS STUDENTS: IMPLICATIONS FOR ECONOMIC AND ENTREPRENEURIAL BEHAVIOUR

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1. THE NOTION OF RISK AND ITS IMPLICATIONS FOR THE ECONOMIC BEHAVIOUR

Risk has been traditionally defined in terms of *variability* related to the results of a certain economic activity (Arrow[1]; Pratt[2], as cited by Mitchell, 1998), which may be either analyzed from the quantitative point of view, or dealt with according to the subjective preference(s) of the decision-maker (i.e. other person bearing the responsibility for a risky outcome). Personal attitudes, therefore, play a major role in defining the risky situations in any field of decision-making, including the organizational and entrepreneurial behaviour, as well as in shaping the response to such situations.

In marketing studies, consumer behaviour is often analyzed in terms of *perceived risk,* defined by using the concept of uncertain consequences arising from the buying decisions (Bauer[3], as cited by Lu et al., 2005), as a customer may not be sure whether he or she will be satisfied with the product/service purchased. In addition, the *perceived risk* may not be a one-dimensional variable, as multiple sorts of risk can be identified, serving as sources of

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[1] Arrow, K. (1965), **Aspects of the Theory of Risk Bearing,** Jahnssonis Saatio, Yrjo, Helsinki
[2] Pratt, J.W. (1964), **Risk aversion in the small and in the large firm,** *Econometrica,* Vol. 32, pp. 122-36.
[3] Bauer,R.A.(1960), **Consumer behaviour as risk taking,** in: Hancock,R.F.(Ed.), *Proceedings of the 43rd Conference of the American Marketing Association,* American Marketing Association, Chicago, pp. 389-98.

variability of different outcomes significant to the individual (cf. Jacoby & Kaplan[4], as cited by Lu et al., 2005).

In decision-making, the perception and the level of risk tolerance influence the evaluation of individual alternatives, which can be observed both in general terms, as well as by taking into account the industry-specific factors (Pablo, 1999). However, this fact can be interpreted as a rather imprecise approach to defining risk in the context of managerial behaviour, if individual psychological factors are accepted as the determinants of how risk shapes the decision-making processes. A possible further problem of the research related to the manner in which the managerial approach to risk is analyzed may be found in the fact that the managers function on the basis of *ex-ante* perceptions/presumptions of the future (risky) events, while their actions (and the risk itself) are evaluated only *ex-post* (cf. Jemison[5], as cited by Pablo, 1999).

The economic theory itself often assumes that the average economic actor is risk-averse, according to the idea of diminishing marginal utility of acquiring additional wealth (Eisenhauer, 2006), although the psychological research may show otherwise (Zaleskiewicz, 2001), which leads to the well-known typology of **risk-averse, risk-neutral and risk-seeking (economic) behaviour.** In this context, it is important to note that the contemporary theory has been questioning the traditional notion of 'automatic' risk aversion, as the individual actors may not use the 'proper' (but rather, a distorted) distribution of outcomes in reaching their economic decisions, as described by Quiggin[6] - in case of the Rank-Dependent Utility theory and Tversky & Kahneman[7] - in case of the Cumulative Prospect Theory (as cited by Davies & Satchell, 2007).

Nevertheless, the *very act of accepting a certain risk can not be reduced to a type of personality/psychological traits of the decision-maker.* Namely, risk-taking can be conceptualized in terms of a 'rational' process, aimed toward reaching certain (realistic) objectives (*'instrumental' risk-taking),* or as a process leading toward the stimulation of excitement taking place in a risky situation (*'stimulating' risk taking)* (Zaleskiewicz, op. cit.), which is illustrated by Table 1.

Table 1. 'Stimulating' and 'instrumental' risk-taking

'Stimulating' risk taking	*'Instrumental' risk-taking*
Uncontrollable	Controllable
Magnitude of possible losses not important	Magnitude of possible losses very important
Emotional processes more important	Cognitive processes more important
Positive (emotional) arousal	Negative (emotional) arousal
Concentration on possible gains	Concentration on possible losses
Short time perspective	Long time perspective
Unconscious processing	Conscious processing

Source: (Zaleskiewicz, op. cit., p. 107)

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[4] Jacoby,J.; Kaplan,L.B. (1972), **The components of perceived risk,** in: Venkatesan,M.(Ed.), *Proceedings of the 3rd Annual Conference of the Association for Consumer Research,* Association for Consumer Research, College Park, pp. 382-92.
[5] Jemison, D. B. (1987): **Risk and the relationship among strategy, organizational processes and performance,** *Management Science,* Vol. 33, pp. 1087-1101
[6] Quiggin, J. (1982): **A theory of anticipated utility,** *Journal of Economic Behavior and Organization,* Vol. 3, pp. 323-343
[7] Tversky,A; Kahneman, D. (1992): **Advances in prospect theory: Cumulative representation of uncertainty,** *Journal of Risk and Uncertainty,* Vol. 5, pp. 297-323

Many other studies have tried to establish the empirical relationship between the economic choices/behaviour and the various forms of 'instrumental' risk-taking, usually in the field of investment decisions (see, e.g. Filbeck et al, 2005), with numerous factors being cited as possible variables governing the relationship (the 'genetic programming' of an individual, or even the entire human race: see, e.g. Fantino & Romanovich, 2006; the manner in which the individual brain processes are taking place, i.e. whether a person is mostly using the right or left hemisphere of its brain: see, e.g. Christman et al., 2006; the previous social experiences, which may – for instance – shape the individual sense of success and 'power mindset': see, e.g. Anderson & Galinsky, 2006; etc.).

2. ENTREPRENEURIAL BEHAVIOUR AND RISK: SOME WIDER SOCIAL CONSEQUENCES?

At a more 'generic' level, the analysis of risk attitudes is not limited to the individual decision-maker (or any other economic actor), but can be generalized, in order to explain the entrepreneurial behaviour, or even levels of economic development of a certain territory, or even an entire economy.

It is one of the axioms of the economic thought that *entrepreneurship is intrinsically linked to risk-taking,* while the appropriation of profit may be viewed as a (socially acceptable) reward for accepting the financial (or other forms of) risk. In a stricter sense, entrepreneurs' income is much more variable to the employees' wages (DeWit[8], as cited by Cramer et al, 2002), being compatible with the formal definition of risk. The 'logical' consequence of such a reasoning is often found in *linking the risk-seeking behaviour with the entrepreneurial potential* (Cox & Jennings[9], as cited by Brindley, 2005), which has been examined and partially supported by the empirical data from a large Dutch survey (Cramer et al, 2002). However, Brindley (2005, p. 147), reviews other available empirical sources linking the risk propensity to sources and intensity of entrepreneurial behaviour and advises by citing Busenitz (1999), who believes that there are no solid empirical evidences to support a common idea of risk attitude-entrepreneurship relationship.

In the same context, it is necessary to discuss the (mis)conceptions about the linkages between the average (national) risk tolerance/aversion, which can be, to a certain extent, traced back to Hofstede's (2001) notion of the *uncertainty avoidance* as an integral part of the national culture[10]. Although the processes of globalization certainly influence the inherent risks of business ventures (Noland, 2005), as well as average risk attitudes that can be attributed to individual nations, the idea that the level of economic development can be directly linked to the development of entrepreneurship, which itself depends on the national attitude toward risk-taking, seems to be rather exaggerated (Mosley & Verschoor, 2005). However, the idea that the risk avoidance is once of the principal causes of the 'vicious circle of poverty' is advocated even by the respected 2000 *World Development Report,* which

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[8] DeWit, G. (1993): **Determinants of self-employment,** Physica Verlag, Heidelburg

[9] Cox, C.; Jennings, R. (1995): **The foundations of success: the development and characteristics of British entrepreneurs and intrapreneurs,** *Leadership & Organization Development Journal,* Vol. 16, No. 7, pp. 4-9

[10] Some researchers have even looked at special national characteristics, such as proverbs, in order to analyze the national stance toward risk and risk-taking, i.e. risk–aversion (Weber & Hsee, 1998). Other studies have dealt with linkages between risk perception and ethnicity (Palmer et al, 2001), etc.

identifies the *low ability to manage risk* as another significant source of poverty, although the existing levels of available assets and their returns offer much better explanation to low income of certain developing nations (Mosley & Verschoor, op. cit.).

In addition to stimulating entrepreneurial behaviour, appropriate risk attitudes can serve as a significant source of other economically beneficial processes, either to individual actors, or wider social structures. These include improvement of project management, corporate governance, new product development, etc. (Elkington & Smallman[11]; DiBenedetto[12] – both as cited by Kendrick, 2004; Kendrick, op. cit.), which motivates the creation of an entire (sub)field dealing with risk measurement and management in corporate environments. Significance of such risk management processes – both on the level of individual firms, as well as for national economies – can be vividly described by the financial scandals of the early 2000s, including once renowned companies and leading to introduction of relevant regulation.

3. RISK AVERSION OF CROATIAN BUSINESS STUDENTS: EMPIRICAL RESEARCH

As all three authors teach the same group of undergraduate students, currently enrolled into the third year of the four-year university program of business studies at the Faculty of Economics of the University of Split (Croatia), the random sample has been selected from this population, with 150 respondents being selected out of the group of approximately 700 students. They had been presented with three scenarios of business decision-making involving risk and asked to resolve the scenario and quantify the level of risk aversion (see Appendix 1 for the transcript of scenarios used as the research instrument). It should be noted that the scenario-based approach to empirical research of risk attitudes is a rather widely accepted methodology in literature and comparable studies (see, e.g. DiMauro & Maffioletti, 2004; Filbeck et al, 2005, etc.).

The scenarios detect the 'extreme' cases of risk-aversion and risk-taking, as well as a range of risk-neutral responses, which makes it possible to construct the 'risk profile'. Simultaneously, as three scenarios are being evaluated, it is also possible to determine the consistency of a risk profile for each respondent. Table 1. illustrates the descriptive statistics of decisions explicitly chosen for all three scenarios, with the alternatives mapped in the following manner (see Appendix 1 for coding of individual variables):
  (a) *Risk-seeking behaviour,*
  (b) *Risk-averse behaviour,*
  (c) *Avoiding confrontation with a decision involving risk,*
  (d) and (e) *Risk-neutral (or risk-reducing) behaviour,* intended to reduce the amount of risk as much as possible (although such an approach might influence the quality of the decision-making process).

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[11] Elkington, P.; Smallman, P. (2002): **Managing project risks: a case study from the utilities sector,** *International Journal of Project Management,* Vol. 20, No. 1, pp. 49-57

[12] DiBenedetto, C. A. (1999): **Identifying the key success factors in new product launch,** *Journal of Product Innovation Management,* Vol. 16, No. 6, pp. 530-544

Table 2. Respondents' risk attitudes for the selected decision-making scenarios

Response	SCENARIO 1		SCENARIO 2		SCENARIO 3	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
a	36	24,0	*89*	*59,3*	*69*	*46,0*
b	14	9,3	16	10,7	70	46,7
c	1	0,7	3	2,0	0	0
d	*70*	*46,7*	7	4,7	1	0,7
e	29	19,3	35	23,3	10	6,7
TOTAL	150	100,0	150	100,0	150	100,0

Source: Research results

Analysis of responses to different scenarios demonstrates the inconsistencies in risk attitudes. For instance, while the litigation scenario (Scenario 1) involves the majority of respondents demonstrating a form of risk-neutral (risk-reducing) behaviour, in the collusion threat scenario (Scenario 2), majority responds by employing the risk-seeking response and in the case of the project management capability scenario (Scenario 3), and respondents are divided between the risk-seeking and risk-averse responses. It is rather logical that most respondents choose the risk-seeking behaviour in Scenario 2, as the risk-seeking option seem to be rather acceptable, with the predetermined probability of success being set at 75%. However, it is not clear why a lower amount of respondents chooses the risk-seeking alternative in case of its predetermined probability of success being set at 50% (Scenario 1), than in the case in which the probability of success is only 33,33% (Scenario 3).

In the following segment of the research instrument (see Appendix 1), respondents were asked to explicitly determine the level of probability of choosing the risk-seeking response for each scenario. The *level of probability that the risk-seeking response for each of scenarios will be chosen seem rather high,* as demonstrated by Table 3.

Table 3. Level of probability for choosing the risk-seeking response

SCENARIO	N	Minimum	Maximum	Mean	Std. Deviation
Scenario 1	150	0	100	**53,95%**	23,493
Scenario 2	150	0	100	**67,85%**	25,118
Scenario 3	150	0	100	**56,67%**	25,883

Source: Research results

However, if the mean values of the probability are compared pair wise, by using the paired-samples T-test, the formal results of statistical analysis, illustrated by Table 4, are obtained.

Table 4. Pair wise differences between probabilities of choosing the risk-seeking response

		Differences between probability means	95% confidence interval of the probability mean difference		T value	Degrees of freedom	2-tailed significance
Pair 1	Scenario 1 – Scenario 2	-13,893	-19,058	-8,728	-5,315	149	,000
Pair 2	Scenario 1 – Scenario 3	-2,713	-8,412	2,986	-,941	149	,348
Pair 3	Scenario 2 – Scenario 3	11,180	5,470	16,890	3,869	149	,000

Source: Research results

Taking into account that the probability mean difference intervals do not contain zero(s) and the 'standard' 2-tailed significance levels are rather low (below 0.05, as required by the statistical significance level of 5%), it can be concluded that *there are significant differences between the risk-seeking response probabilities between the Scenarios 1 and 2, as well as between the Scenarios 2 and 3.* This implies that the Scenario 2 might have a specific feature, which differentiates it from the other ones, which could be attributed either to a high level of the previously determined level of probability (75%) that the risk-seeking behaviour is not, actually, 'too risky', or to the emotional response to the collusion threat presented in the scenario.

At the other hand, more than a 50% probability of choosing the risk-seeking response to Scenarios 1 and 3 is **inconsistent with the previous findings** presented in Table 1, as a higher amount of respondents should be choosing the risk-seeking solutions to the presented problems. Such an inconsistency can be also independently traced in Scenario 3, with the sample 'splitted' into two almost identical groups of risk-seekers and risk-averse decision-makers, while the probability of risk-seeking behaviour is being determined at the level of almost 60%. Finally, in Table 5, the 'theoretical' number of risk-seeking decision-makers (calculated on the basis of the mean probabilities, presented in Table 3) is compared to the amount of respondents explicitly choosing a risk-seeking solution (see Table 1) to the Scenarios 1 and 3, also leading to the same conclusion.

Table 5. 'Theoretical' and actual amount of risk-seeking decision-makers in the sample

SCENARIO	Mean probability for choosing the risk-seeking response	Theoretical number of risk-seeking decision-makers in the sample	Amount of respondents explicitly choosing a risk-seeking solution
Scenario 1	53,95	Appx. 81	36
Scenario 3	56,67	Appx. 85	69

Source: Research results

In addition, response to the three scenarios has been analyzed with the assumption that the probabilities of success for the risk-seeking solutions are not predetermined. In these cases, the amount of 'extremely' risk-averse vs. the 'extremely' risk-seeking respondents (choosing the risk-free vs. the alternative involving the highest amount of risk, regardless of the success probability) is demonstrated by Table 6.

Table 6. Response to risk in case the probability of risk-seeking alternative is not predetermined

SCENARIO	Number of respondents	'Extremely' risk-averse respondents[*]	'Extremely' risk-seeking respondents[**]
Scenario 1	150	10 (6,6%)	5 (3,3%)
Scenario 2	150	22 (14,7%)	6 (4,0%)
Scenario 3	150	21 (14%)	5 (3,3%)

[*]Note: Includes both respondents choosing the explicit answer related to risk-aversion, as well as those requiring the 100% success probability, in order to opt for the risk-seeking alternative (applicable to all scenarios).

[**]Note: Includes both respondents choosing the explicit answer related to risk-seeking, as well as those requiring the 0% success probability, in order to opt for the risk-seeking alternative (applicable only to Scenario 2).

Source: Research results

More or less 'risk-neutral' respondents (with the risk neutrality being interpreted in terms of not choosing one of the either 'extremely' risk-averse or risk-seeking responses) require different levels of predetermined success probability, in order to opt for the risk-seeking alternative. Table 7. illustrates these required probability levels.

Table 7. Success probability required for choosing the risk-seeking alternative

SCENARIO	N	Minimum	Maximum	Mean	Std. Deviation
Scenario 1	137	20	100	**64,71%**	16,248
Scenario 2	124	0	100	**70,15%**	18,453
Scenario 3	125	10	100	**57,54%**	18,510

Source: Research results

Distribution of required probability levels is further demonstrated by Figure 1.
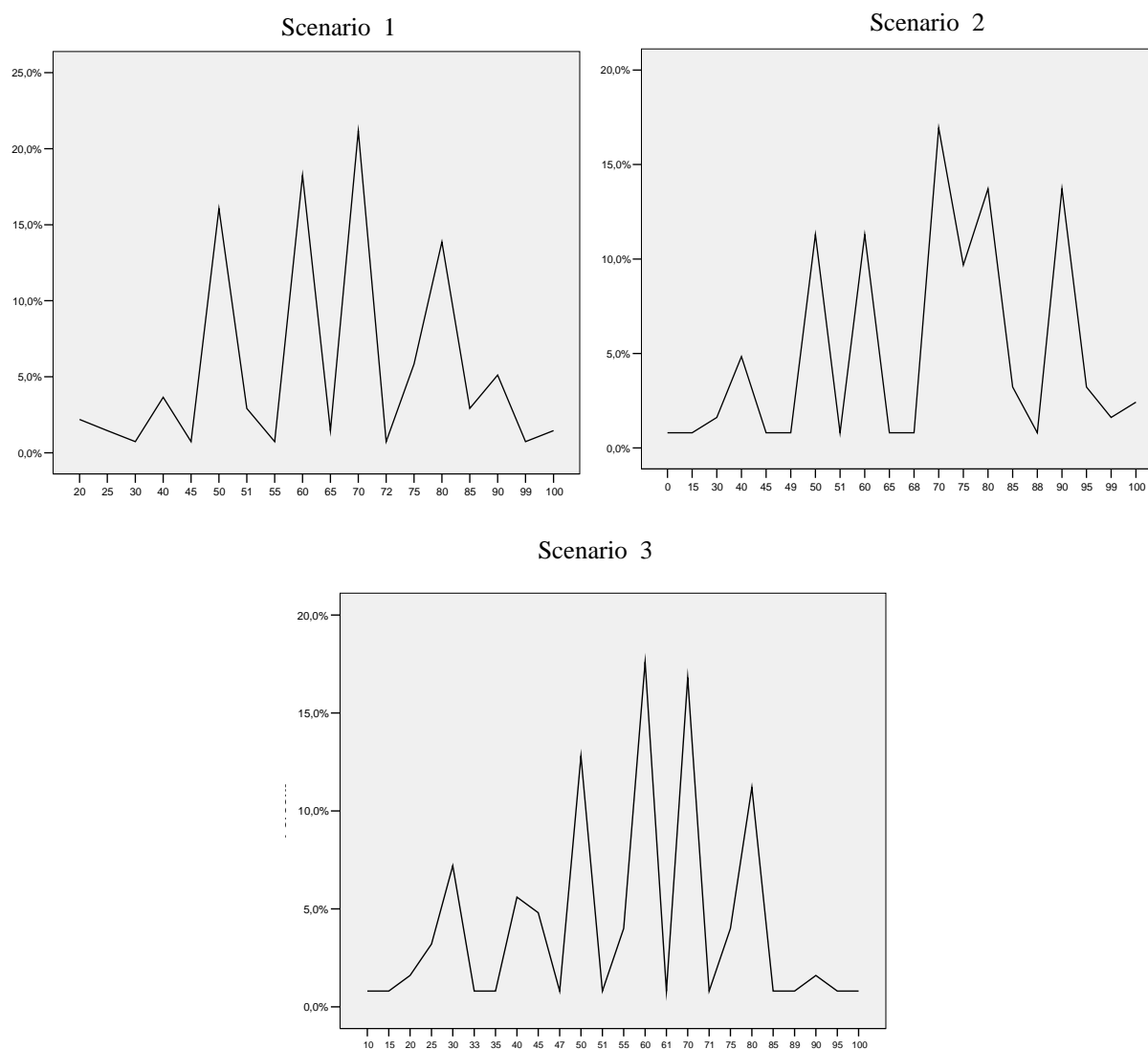
Figure 1. Distribution of required probability levels for choosing the risk-seeking alternative

For the first scenario, there are four large clusters of probability, required to take the action in the risk-taking direction – around 50%, 60%, 70% (which attracted the highest amount of respondents) and between 75% and 85%. Number of clusters increases both for Scenario 2 and Scenario 3, with values amounts of respondents peaking in the segments between 70%-80% for the former and 55%-60% for the latter.

4. DISCUSSION OF THE EMPIRICAL RESULTS AND CONCLUDING REMARKS

As previously indicated, prevailing risk attitudes have a range of implications – from entrepreneurial inclination to a part of possible explanation for a country's level of economic development. In this paper, the issue of measuring risk attitude and putting it into the context of future research tasks has been of paramount importance for the authors. Results of the empirical investigation confirm such a research orientation. Namely, by employing scenario-based measurement of risk aversion/risk-seeking behaviour of a sample of Croatian business

students from the Faculty of Economics of the University of Split, mixed and somewhat inconsistent results have been obtained.

However, we believe that the case in which the *risk-seeking behaviour is evaluated, without the predetermined success rate of such an alternative,* should serve as the most important indicator of risk preferences in our sample. It demonstrates that the respondents are – according to the presumptions of the classical economic theory – **mostly risk averse,** with the required average success rate of a risk-seeking alternative, if one is to take action in such a direction, between the values of 57% and 70%.

Although additional empirical research is required to reach any definite conclusions, it is indicated that Croatian business students lean toward the risk-averse behaviour, which may help understand both their current needs (in the context of introducing the university reform, according to Bologna standards), as well as their future economic/entrepreneurial behaviour.

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APPENDIX 1. SCENARIOS OF RISKY BUSINESS DECISION-MAKING

Scenario 1.

Your company is faced by a litigation procedure related to the patent infringment, supposedly caused by a product your company plans to launch next month. Your legal counsel estimates that the company has a 50% chance to win the case and save the amount of 1 million EUR, for which the plaintiff is willing to drop the patent infringment charge and allow the new product launch without further legal actions. At the other hand, there is a 50% chance that your company will lose on the court of law and be required to drop the new product and pay the damages, which, together with the lost profits, will be equal to the amount of 2 million EUR.

1.Which of the following alternatives would you choose ?
a) Resolve the dispute at the court of law
b) Agree to the out-of-court settlement
c) Delegate the final decision to your legal counsel
d) Hold back the final decision as long as possible
e) Collect as much information as possible before entering into legal procedure

2. What is the probability (in %) that you will opt for resolving the dispute at the court of law?

3. If the probability of winning the dispute at the court of law had not been predetermined, what is the minimum probability you would require to make you opt for the trial?

   a) _____ %
   b) I would opt for the court trial, regardless of the probability for winning the case
   c) I wouldn't opt for the court trial, regardless of the probability for winning the case

Scenario 2.

One of your major clients (X) asks you to stop doing business with your other major client (Y), who is X's main competitor. If you do not collude, X threatens that they will choose another vendor and you are aware that no legal action will be available as a remedy for the situation. Your annual revenue from business with X amounts 3 million EUR, while the annual revenue from business with Y equals 4 million EUR. In case you comply with X's request, there is a 75% chance that Y will stay in business, which limits your potential losses to 3 million EUR (as you are going to lose the client X). However, there is a 25% chance that Y won't be able to resist the competitive pressure from X, which might result in losses as high as 7 million EUR (with client X choosing another vendor and client Y going out of business).

1.Which of the following alternatives would you choose ?
a) Continue doing business with client Y
b) Stop doing business with client Y
c) Delegate the final decision to your legal counsel
d) Hold back the final decision as long as possible
e) Collect as much information as possible before reaching the final decision

2. What is the probability (in %) that you will opt for continuing your business with client Y?

3. If the probability of Y not going out of business had not been predetermined, what is the minimum probability you would require to make you opt for continuing your business with Y?

    a) _____ %

    b) I would opt for continuing my business with Y, regardless of the probability of Y staying in business

    c) I wouldn't opt for continuing my business with Y, regardless of the probability of Y staying in business

Scenario 3.

You are in charge of a major project, which can be implemented either independently, or by entering into a joint venture with another company. Consultant you hired estimates that, in case of the independent implementation of the project, there is a 33,33% chance that the project will be exceptionally successful, with return on invested assets (ROI) reaching the amount of 22%. However, there is a 66,66% chance that the project will be only somewhat successful, with final ROI of only 10%. At the other hand, if you enter into a joint venture xwith a present competitor, possessing experience relevant for the venture, ROI is guaranteed to reach the amount of 14%.

1.Which of the following alternatives would you choose ?
a) Independent implementation of the project
b) Joint venture with the competitor
c) Delegate the final decision to your consultant
d) Hold back the final decision as long as possible
e) Collect as much information as possible before reaching the final decision

2. What is the probability (in %) that you will opt for the independent implementation of the project?

3. If the probability of reaching the exceptional success with this specific project had not been predetermined, what is the minimum probability you would require to make you opt for the independent implementation of the project?

    a) _____ %

    b) I would opt for the independent implementation of the project, regardless of the probability of exceptional success

    c) I wouldn't opt for the independent implementation of the project, regardless of the probability of exceptional success

FORECASTING TOURISM DEMAND IN CROATIA: A DISAGGREGATED ANALYSIS OF MONTHLY OVERNIGHT STAYS

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Abstract

The Croatian tourism industry has experienced a substantial rise over the recent years resulting in its continuously increasing significance for the overall economy. In light of that, this study estimates monthly time series intervention seasonal ARIMA models for the total number of tourist overnight stays as well for the overnight stays disaggregated into domestic and foreign components. The time series intervention seasonal ARIMA models include intervention variables for the 1995 military action by the Croatian authorities and the 1999 Kosovo crisis. Allowing for time-varying variance in the residuals of the intervention seasonal ARIMA models, in-sample and out-of-sample forecasts are generated for total, domestic, and foreign tourist overnight stays.

1. INTRODUCTION

The Croatian tourism industry has experienced a substantial rise over the recent years resulting in its continuously increasing significance for the overall economy. Particularly important is the contribution of foreign tourism receipts to the total export revenues of the country as well as to the narrowing of its current account deficit. As a result, understanding

the sensitivity of tourism demand with respect to its main determinants as well as the forecasting of future tourism flows become important tasks. In general, the entire literature on modeling tourism demand focuses either on the analysis of the effects of the various determinants and/or on the accurate forecasting of future tourism demand. This study lies within the group focusing on forecasting future tourism demand.

Forecasts of tourism demand are essential for efficient planning by the various sectors of the tourism industry as they assist policymakers, investors and managers to make more informed decisions. In addition, the perishable nature of the tourism product (unused hotel rooms or airplane seats cannot be stockpiled) makes the accuracy of forecasts in tourism particularly important (du Preez and Witt, 2003).

Relatively little attention has been given so far to the quantitative analysis of the tourism sector in Croatia and in particular to the forecasting of tourism flows. Reasons include data constraints related to the breaks in time series as well as war and political instability in the region in the early 1990s, which heavily affected Croatia's tourism sector. Thus, the objective of this study is to construct time series intervention seasonal ARIMA models for the number of tourist overnight stays. The analysis uses monthly data on total, domestic and foreign overnight stays and covers 1994:1 to 2006:4 period.[1]

To briefly illustrate the importance of the tourism sector for the Croatian economy as well as the developments over the past decade it should be mentioned that foreign tourism receipts amounted to EUR 6.0 billion in 2005, which represents about 20 percent of GDP and is four times the amount earned in 1994. At the same time foreign tourism receipts made up 40 percent of the total export revenues of the Croatian economy. Together with the domestic receipts from tourism that were estimated at EUR 1.6 billion, total tourism receipts amounted to roughly 25 percent of GDP in 2005.[2] In the case of Croatia overnight stays by foreign tourists contribute 90 percent to the total number of overnight stays. While the number of overnight stays by foreign visitors reached almost 46 million in 2005, three times the number achieved in 1994, historical highs from the late 1980s have not been surpassed. Traditionally, Western Europe has been Croatia's largest source market. Tourists from Germany and Italy account for one-third of the total number of overnight stays. When tourists from Slovenia, Czech Republic, Austria and Hungary, the other major tourism export markets, are added, close to three-fourths of the total number of overnight stays stem from these countries.[3] Labor force survey data suggest that in 2005, approximately 5.3 percent of employed persons in Croatia worked directly in the tourism industry.[4]

Understanding the factors that affect tourism demand in Croatia as well as accurate forecasts of future tourism flows are especially important given the fact that policymakers expect significant increases in tourism revenues, in particular from foreign sources, in the future. Such expectations are partly related to Croatia's accession to the European Union (EU) which is expected to take place by the end of 2009. In the short-run EU membership will primarily affect the image of the country as it will contribute to the improved perception of socio-political stability. In addition to abiding by EU standards related to the tourism industry, the

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[1] The analysis begins after the successful implementation of the macroeconomic stabilization program. See Anušić et al. (1995) for details of the stabilization program.
[2] CNB (2006), CBS (2006) and Institute for Tourism (2006).
[3] CBS (2006).
[4] CBS (2006).

elimination of border controls and therefore easier access to Croatian destinations should enhance the tourism sector.

This paper is organized as follows. Section 2 briefly reviews the literature on modeling and forecasting tourism demand. Section 3 gives details on the data and model specifications along with the discussion of the empirical results. Section 4 provides concluding remarks.

2. LITERATURE BACKGROUND

As shown by the comprehensive reviews of the empirical literature by Crouch (1994a, 1994b, 1995), Witt and Witt (1995), Lim (1997, 1999) and Li et al. (2005) the last four decades have seen a large increase in the number of published studies on modeling and forecasting tourism demand.[5] The growing interest in the area is partially due to the rapid rise of the international tourism industry. However, it has also been additionally stimulated by search for modeling techniques that would improve accuracy of tourism demand forecasts (Song et al., 2003).

Empirical studies on modeling and forecasting tourism demand can be divided into two major groups. The first group focuses on non-causal, mainly time-series modeling approaches while the second group concentrates on causal econometric techniques. Time series models involve a statistical analysis, which uses only the historical data of the tourism demand variable. These models extrapolate historic trends of tourism demand into the future without considering the underlining causes of the trends. The second group, so-called causal models are based on the statistical analysis of data for other related variables, and use these other – explanatory – variables to model and forecast the tourism demand variable of interest. As for the explanatory variables, causal models of tourism demand borrow heavily from consumer theory which suggests that the level of consumption depends on the consumer's income, the price of the good/service in question, the prices of related goods (substitutes and complements), and other demand shifters. As a result, income and prices are the most commonly used variables in terms of the major factors influencing the demand for tourism.

There are numerous forecasting methods available today. However, the empirical comparisons among them have not given a clear answer as to the most appropriate methods for forecasting tourism flows (Lim and McAleer, 2001; Song et al., 2003). The type of the data (monthly, quarterly and annual data), forecasting horizon as well as the country of origin, among other things, influence the forecasting performance of various models.

As shown by Lim et al. (2005), ARIMA models, including their seasonal variant, have been most popular among the time-series forecasting scope. Predicting future movements of tourism demand based solely on the past behavior of variables such as tourist arrivals, overnight stays or tourist receipts, rather than relating them to other variables in a causal framework is straightforward. Since only the historical data of the individual variable is used, method is both time and cost effective especially in cases when the structural behavior of related (explanatory) variables is unknown or difficult to explain and forecast (Lim and McAleer, 2001).

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[5] While Crouch (1994a, 1994b, 1995), Witt and Witt (1995), and Lim (1997, 1999) focus on studies published from the early 1960s up to the beginning of the 1990s, Li et al. (2005) reviews empirical studies in the post-1990 period.

In light of the importance of the tourism industry for the Croatian economy, relatively little attention has been given to a quantitative analysis of this sector. Existing empirical research has been limited and mostly focused on the determinants of tourism demand. These studies have been based either on traditional econometric techniques such as ordinary least squares (Stučka, 2000 and Payne and Mervar, 2002) or more advanced econometric approaches such as the Johansen-Juselius cointegration approach (Bellulo and Križman, 2000) and autoregressive disributed lag (ARDL) model (Mervar and Payne, 2007). Two of the studies on tourism demand for Croatia (Stučka, 2000 and Bellulo and Križman, 2000) have modeled individual demand functions for the most important tourist-generating countries for Croatia. In contrast, Payne and Mervar (2002) modeled aggregate revenues from international tourism, while Mervar and Payne (2007) modeled aggregate foreign overnight stays. In general, these studies suggested that the income of the origin countries exerted a strong influence on tourism demand while price/exchange rate effects were often less conclusive. However, none of these studies attempted to forecast the future tourism flows.

As for the forecasting efforts on Croatian tourism, only two studies may be identified. Bahovec and Erjavec (1999) estimated ARIMA models aimed at in- and out-of-sample forecasting using monthly data on tourist overnight stays (total, foreign and domestic) for the period 1993:5-1998:7. In addition, Stučka (2002) used quarterly data 1993:4-2000:2 to estimate OLS and SUR models of tourist arrivals to Croatia in order to distinguish between them based on their forecast accuracy giving clear preference to the SUR models.

3. EMPIRICAL ANALYSIS: DATA, METHODOLOGY, AND RESULTS

Monthly data on overnight stays covering the period 1994:1 to 2006:4 was provided by the Croatian Central Bureau of Statistics. The choice of overnight stays over the other aggregate measures of tourism demand, in particular the number of tourist arrivals, is justified by the fact that in the case of Croatia, if tourists change the place of their stay within the country, they are registered more than once in the statistics on tourist arrivals. Thus, the number of overnight stays circumvents these issues and also accounts for the length of stay although it excludes stays with friends and relatives or stays in other forms of unregistered accommodation.

Figures 1 through 3 display the times series data for domestic, foreign, and total overnight stays, respectively over the period 1994:1 to 2006:4. As one can see from an inspection of the graphs, there appears to be a noticeable seasonal pattern in each of the series. Therefore, in order to forecast overnight stays we exploit this seasonal pattern in the development of a univariate model incorporating the potentially adverse military/political actions in the later half of the 1990s. Following the work of Witt and Witt (1995), Goh and Law (2002), Lim and McAleer (2000), and Song et al. (2003), a time series intervention seasonal ARIMA model is estimated in general form, as given in equation (1), to each of the above-mentioned series:

$$\phi_p(L)\Phi_P(L)\nabla^d\nabla_S^D LOVN_t = \sum_{i=1}^n \omega_i I_{it} + \theta_q(L)\Theta_Q(L)\varepsilon_t + \varepsilon_t \qquad (1)$$

where $LOVN$ = natural logarithm of domestic ($LDOVN$), foreign ($LFOVN$), or total ($LTOVN$) overnight stays; L = backward shift operator; ϕ_p = autoregressive parameter of

order p; Φ_P = seasonal autoregressive parameter of order P; ∇^d = difference operator of order d; ∇_S^D = seasonal difference operator of order D; I_{it} = the intervention variables; θ_q = moving average parameter of order q; Θ_Q = seasonal moving average parameter of order Q; and ε_t = random error term.

Two intervention variables are incorporated into the model to capture political events during the 1994:1 to 2006:4 period that could have an adverse impact on the Croatian tourism industry: (1) the 1995 military operation by the Croatian army to regain territories occupied in 1991 and (2) the Kosovo crisis and NATO intervention in neighboring Serbia and Montenegro in 1999. Dummy variables are used to capture the effects of these one-off episodes. D95 is a dummy variable 1.0 for the military action by Croatian authorities in 1995:2 through 1995:4 to regain the territory occupied in 1991 and 0.0 otherwise while D99 is a dummy variable 1.0 for the Kosovo crisis in 1999:2 through 1999:4 and 0.0 otherwise.

The estimation of the time series interventional seasonal ARIMA models will cover the period 1994:1 to 2005:4 in which one-step-ahead in-sample forecasts will be generated while the period 2005:5 to 2006:4 will be used to assess the out-of-sample forecasts of the models. Preliminary examination of the autocorrelation and partial autocorrelation functions revealed that each of the series required first-differencing and seasonal differencing of the 12th-order to render each series stationary. Further examination of the autocorrelation and partial autocorrelation functions of the respective stationary series indicated that a seasonal ARIMA$(0,1,1)(1,1,0)_{12}$ may be an appropriate specification for each series.

The first column of Tables 1-3 reports the results of estimating the time series intervention seasonal ARIMA$(0,1,1)(1,1,0)_{12}$ models over the period 1994:1 to 2005:4. In each case the coefficients on the moving average and autoregressive, MA(1) and AR(12), terms are negative and statistically significant at the 1 percent level.[6] However, the coefficients on the intervention variables, D95 and D99, are statistically insignificant. It appears that the respective overnight stays measures exhibit strong seasonal patterns; however, the military/political events of the later half of the 1990s have not significantly affected tourism flows. In order to ensure the validity of the models' estimates, residuals have been checked for serial correlation. Across the three models, the residuals are absent of serial correlation as evident by the statistical insignificance of the Box-Pierce Q-statistic, Q(36). However, the residuals exhibit autoregressive conditional heteroskedasticity of the first-order as shown by the $\chi^2(1)$ test statistic, ARCH(1), violating the assumption of constant variance in the residuals.

Given the presence of first-order ARCH effects, equation (1) is augmented to include the possibility of time-varying variance in the residuals as follows (Engle, 1982; Bollerslev, 1986):

$$\phi_p(L)\Phi_P(L)\nabla^d\nabla_S^D LOVN_t = \sum_{i=1}^{n}\omega_i I_{it} + \theta_q(L)\Theta_Q(L)\varepsilon_t + \varepsilon_t \qquad \varepsilon_t \sim N(0,h_t^2) \qquad (2)$$

$$h_t^2 = \mu + \alpha\varepsilon_{t-1}^2 \qquad (3)$$

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[6] The MA(1) terms satisfy the invertibility conditions while the AR(12) terms satisfy the stationary conditions.

where the mean equation for the respective measure of overnight stays is given by (2) and equation (3) is the (conditional) variance equation. Specifically, $Var(\varepsilon_t | \Omega_{t-1}) = h_t^2$ is the conditional variance of ε_t with respect to the information set Ω_{t-1}. Equations (2) and (3) are estimated simultaneously via the method of maximum likelihood.[7]

The second column of Tables 1-3 displays the results of estimating equations (2) and (3). In the mean equation, the coefficients on the MA(1) and AR(12) terms are negative and statistically significant at the 1 percent level. However, the results are somewhat different with respect to the intervention variables. The dummy variable, D95, is negative and statistically significant at the 10 percent level for domestic overnight stays while insignificant and positive for total overnight stays. With respect to foreign overnight stays, D95 is negative and statistically insignificant at the 10 percent level. As in the case of the time series intervention seasonal ARIMA models without allowing for ARCH effects, the dummy variable, D99, is statistically insignificant in each model with the exception of domestic overnight stays in which it is positive and statistically significant at the 10 percent level. In the variance equation, the ARCH term is positive and statistically significant at the 10 percent level or better for each of the time series. Furthermore, the residuals are free of serial correlation, Q(36), and autoregressive conditional heteroskedasticity, ARCH(1).

Next, the respective time series intervention seasonal ARIMA models allowing for time-varying variance in the residuals are used to generate one-step-ahead in-sample forecasts over the period 1994:1 to 2005:4. Figures 4-6 display each series and the corresponding one-step-ahead forecasts. The respective models perform quite well in terms of tracking the actual series. Panel A of Table 4 reports the summary measures for in-sample forecast accuracy which should be interpreted in the following way: smaller summary statistics indicates greater accuracy of the forecasts. The in-sample forecasts for domestic overnight stays appear to perform better than the models for foreign and total overnight stays across all summary statistics. All three models provide very accurate predictions based on Theils' U inequality coefficient being close to zero. Figures 7-9 display each series and the dynamic out-of-sample forecasts over the 12-month period 2005:5 to 2006:4. All three models capture the turning points of the respective series. The forecasts for both foreign and total overnight stays tend to under-predict the actual behavior of each series while the under-prediction for domestic overnight stays does occur until September 2005 with the greatest amount of dispersion beginning in December 2005 to April 2006. Again, the summary statistics reported in Panel B of Table 4 suggest that all three models provide accurate predictions with out-of-sample forecasts for domestic overnight stays performing slightly better than foreign and total overnight stays. In summary, the tourism industry and policymakers can be assured that tourism flows may be forecasted with a relatively high degree of accuracy.

4. CONCLUDING REMARKS

This study examined monthly time series intervention seasonal ARIMA forecasting models based on current and past – total, domestic and foreign - tourist overnight stays. It extended the existing forecasting tourism literature in case of Croatia both in respect to the method

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[7] As discussed in Bollerslev and Woolridge (1992) the model is estimated under the assumption that the errors are conditionally normally distributed with covariances and standard errors computed via quasi-maximum likelihood.

applied and period examined. The time series intervention seasonal ARIMA models included intervention variables for the 1995 military action by Croatian authorities and the 1999 Kosovo crisis. Allowing for time-varying variance in the residuals of the intervention seasonal ARIMA models, in-sample and out-of-sample forecasts were generated for total, domestic, and foreign tourist overnight stays. The results show that the models performed well in terms of tracking the actual series. The in-sample forecasts for domestic visitor overnight stays appear to perform better than the models for foreign and total overnight stays. All three models of out-of-sample forecasts capture the turning points of the respective series.

The results provide useful insights to both policymakers and representatives of the tourism industry in Croatia implying that forecasting tourism flows, based on the data for overnight stays, may provide credible predictions.

Figure 1
Domestic Overnight Stays
1994:1 to 2006:4
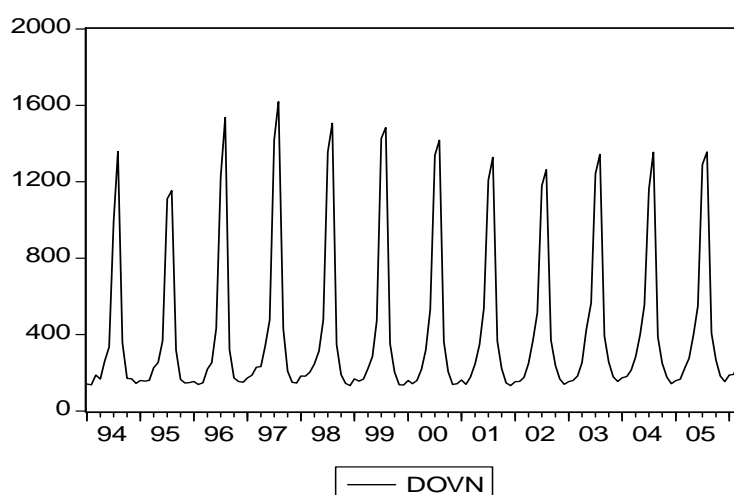
Figure 2
Foreign Overnight Stays
1994:1 to 2006:4

840

Figure 3
Total Overnight Stays
1994:1 to 2006:4
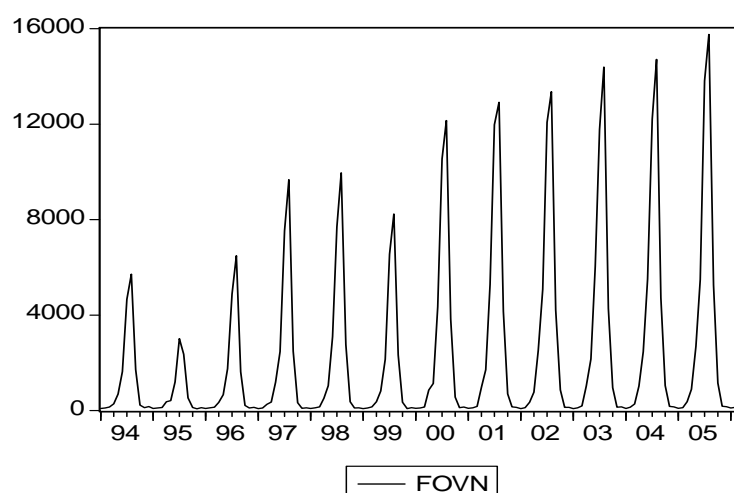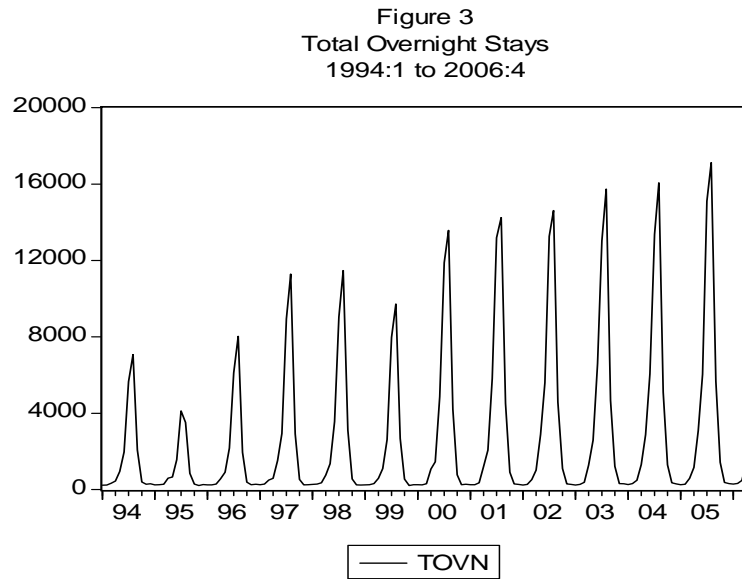
Table 1: Model Results: Domestic Overnight Stays1994:1 to 2005:4

Mean Equation	OLS	ARCH
MA(1)	-0.666	-0.712
	$(0.089)^a$	$(0.065)^a$
AR(12)	-0.279	-0.273
	$(0.090)^a$	$(0.079)^a$
D95	-0.013	-0.018
	(0.012)	$(0.010)^c$
D99	0.012	0.011
	(0.007)	$(0.006)^c$
Variance Equation		
CONSTANT	-------	0.007
		$(0.001)^a$
ARCH (ε_{t-1}^2)	-------	0.304
		$(0.123)^c$
ADJ. R^2	0.388	0.376
Q(36)	43.77	42.17
	[0.12]	[0.16]
ARCH(1)	14.78	0.00
	$[0.00]^a$	[0.97]

Notes: Standard errors are given in parentheses and probability values in brackets. Significance levels are denoted as follows: a(1%), b(5%), and c(10%).

Table 2: Model Results: Foreign Overnight Stays 1994:1 to 2005:4

Mean Equation	OLS	ARCH
MA(1)	-0.457	-0.329
	(0.088)[a]	(0.090)[a]
AR(12)	-0.372	-0.401
	(0.095)[a]	(0.074)[a]
D95	-0.018	-0.011
	(0.062)	(0.064)
D99	0.022	0.026
	(0.024)	(0.028)
Variance Equation		
CONSTANT	-------	0.044
		(0.010)[a]
ARCH (ε_{t-1}^2)	-------	0.258
		(0.119)[a]
ADJ. R^2	0.327	0.304
Q(36)	37.74	39.44
	[0.30]	[0.24]
ARCH(1)	7.36	0.03
	[0.01][a]	[0.85]

Notes: Standard errors are given in parentheses and probability values in brackets. Significance levels are denoted as follows: a(1%), b(5%), and c(10%).

Table 3: Model Results: Total Overnight Stays 1994:1 to 2005:4

Mean Equation	OLS	ARCH
MA(1)	-0.420	-0.294
	(0.089)[a]	(0.093)[a]
AR(12)	-0.331	-0.382
	(0.097)[a]	(0.077)[a]
D95	-0.012	0.003
	(0.055)	(0.057)
D99	0.019	0.026
	(0.019)	(0.022)

Variance Equation		
CONSTANT	-------	0.024
		$(0.006)^a$
ARCH (ε_{t-1}^2)	-------	0.309
		$(0.133)^b$
ADJ. R^2	0.289	0.264
Q(36)	36.98	36.61
	[0.33]	[0.35]
ARCH(1)	7.49	0.00
	$[0.01]^a$	[0.95]

Notes: Standard errors are given in parentheses and probability values in brackets. Significance levels are denoted as follows: a(1%), b(5%), and c(10%).

Figure 4
Domestic Overnight Stays
Actual vs. Forecast
1994:1 to 2005:4
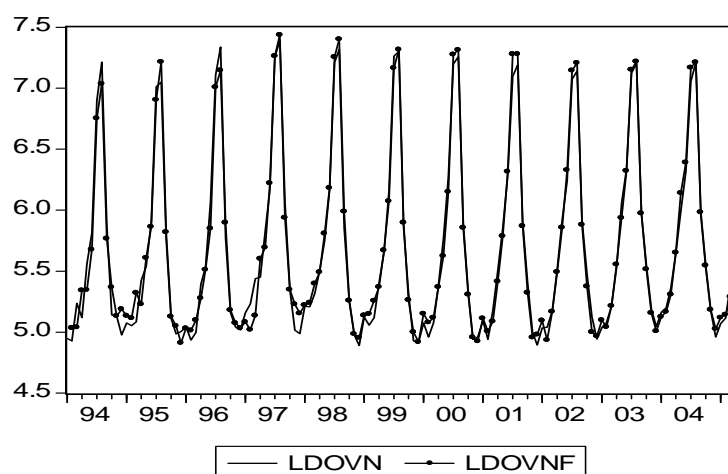
Figure 5
Foreign Overnight Stays
Actual vs. Forecast
1994:1 to 2005:4
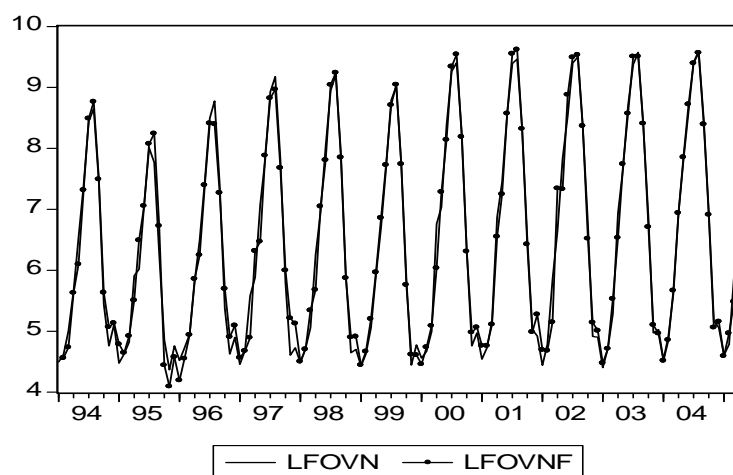
Figure 6
Total Overnight Stays
Actual vs. Forecast
1994:1 to 2005:4
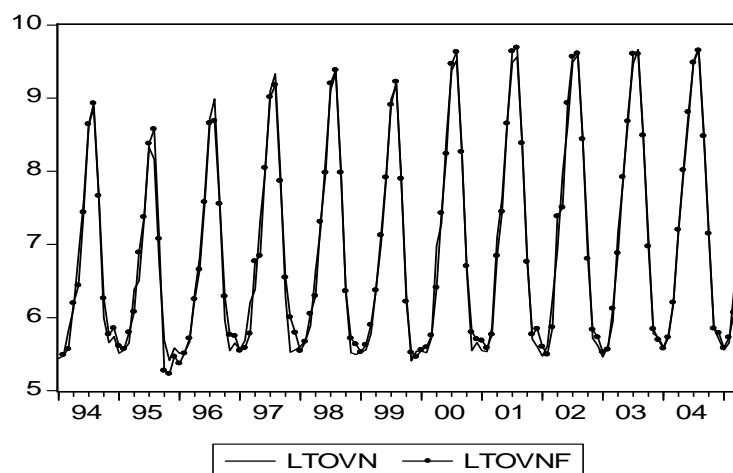
Figure 7
Domestic Overnight Stays
Actual vs. Forecast
1005:5 to 2006:4
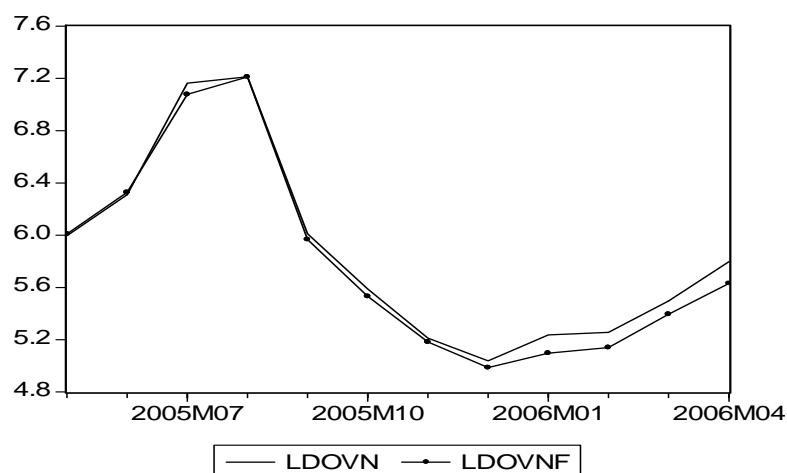
Figure 8
Foreign Overnight Stays
Actual vs. Forecast
1005:5 to 2006:4

Figure 9
Total Overnight Stays
Actual vs. Forecast
1005:5 to 2006:4
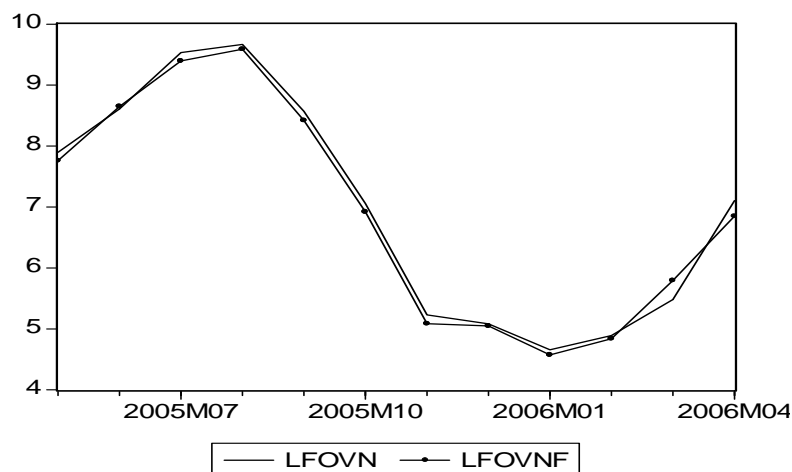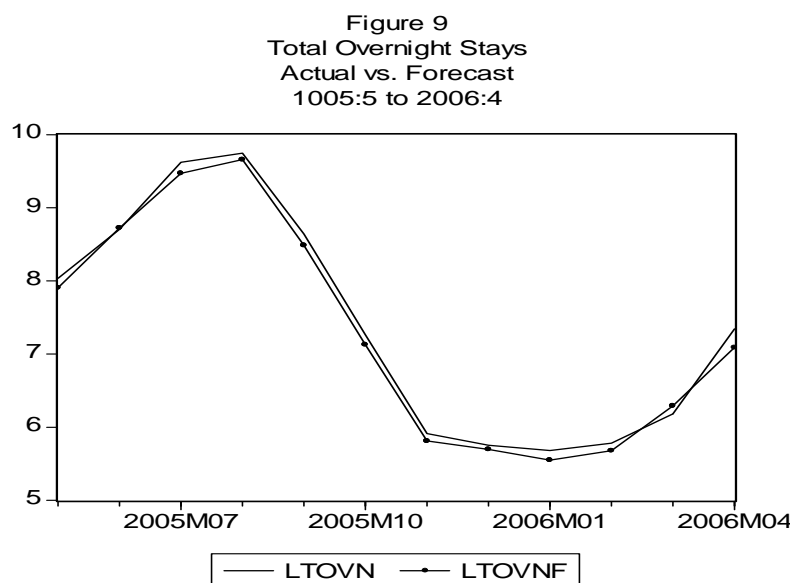
Table 4: Forecast Accuracy Summary Statistics Time Series Intervention Seasonal ARIMA-ARCH Models

Panel A: One-Step-Ahead In-Sample Forecasts, 1994:1 to 2005:4

Statistic	LDOVN	LFOVN	LTOVN
RMSE	0.098899	0.245085	0.187016
MAE	0.076001	0.176960	0.137159
MAPE	1.349422	2.978859	2.065880
THEIL U	0.008619	0.018412	0.013231

Panel B: Dynamic Out-of-Sample Forecasts, 2005:5 to 2006:4

Statistic	LDOVN	LFOVN	LTOVN
RMSE	0.085498	0.152641	0.132007
MAE	0.068777	0.129822	0.119849
MAPE	1.223516	1.972508	1.669904
THEIL U	0.007282	0.010646	0.008817

Notes: RMSE = root mean square error; MAE = mean absolute error; MAPE = mean absolute percent error; and THEIL U = Theil's inequality coefficient.

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ACCOUNTING METHODS FOR COST ALLOCATION APPLIED IN CROATIAN PRODUCTION COMPANIES

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1.   INTRODUCTION

Cost allocation is a serious problem in almost every company. Every company faces with the problem of allocating costs to defined cost objects. Cost allocation process is not an easy, but rather difficult and complicated procedure which requires the appliance of appropriate accounting methods. The process of allocating costs to cost objects is enforced through the application of certain accounting methods. These accounting methods often cannot provide fair and objective cost allocation, because these methods are based on certain cost allocation bases which are arbitrary and not always appropriate for reliable cost allocation. Therefore, accounting theory and practice are constantly trying to improve the existing methods and to develop the new ones which could provide the fair and objective cost allocation.

Cost allocation is an important procedure not only in production companies, but also in service companies. The basic purpose of cost allocation is to enable the determination of cost of a product per unit in production companies and cost of a provided service in service companies. Due to that, cost allocation methods directly affect the product or service profitability evaluation and, at the same time, influencing on segment and company profitability. The significant problem is the choice of cost allocation accounting method appliance. Certain accounting methods for cost allocation cannot apply in the same way and in the same form in every company. These methods need to be adjusted to the company regarding company's basic characteristics such as organizational structure, type of production, technology, accounting system etc. Also, it is important to emphasize that certain accounting method can be appropriate for cost allocation in one company, but cannot ensure the reliable cost allocation in the other company.

One of the most important factors which affect the choice of the appliance of accounting method is the production cost structure. The reliability of accounting method for cost allocation significantly depends on the production cost structure. In order to determine which accounting methods for cost allocation are used in Croatian production companies, an empirical research has been conducted in the most significant Croatian production companies. When conducting the research, two main hypothesises are being set up:

H1: Direct production costs are taking the highest portion in production cost structure in the majority of Croatian production companies. Because of such production cost structure, modern cost allocation accounting methods wouldn't contribute to more reliable company profitability evaluation and business decision making.

H2: The majority of Croatian production companies are using traditional accounting methods for cost allocation.

This two hypothesises are tested in Croatian production companies. The research is conducted on the basis of defined sample which include all important Croatian public production companies. The research results are presented in this article.

2.   PURPOSES AND PROCESS OF COST ALLOCATION

2.1.   Purpose of Cost Allocation

Cost allocation is a process which every company has to deal with. The procedure of allocating costs to defined costs objects is one of the most important procedures in every company. This procedure enables the significant information for qualitative business decision process. Cost allocation provides management with information regarding product or service profitability evaluation, segment evaluation and company profitability evaluation which are needed for both strategic and operating decisions.[1]

The basic purpose of cost allocation process is to determine the cost of a product or service. Besides that basic purpose, cost allocation is performing in order to enable the following purposes:[2]

1. to provided information for economic decisions
2. to motivate managers and employees
3. to justify costs or compute reimbursement
4. to measure income and assets for reporting to external parties.

The first purpose is the most important one, because cost allocation process is mostly implementing for enabling economic decision such as pricing, quantity of production, forming the product mix, the implementation of new product, the acceptation of certain customer's order etc. Cost allocation can contribute to motivate managers and employees to design products that are simpler to manufacture. Also, cost allocation can be used to justify costs or compute reimbursement when certain costs are not including in the cost of a product

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[1] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 482

[2] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 483

or service. Finally, cost allocation is necessary for income and assets measurement for external reporting.[3] According to the existing IFRS, only production costs can be included in the value of work in progress and finished products.

2.2.   Process of Cost Allocation

Since cost allocation is a difficult and complicated process which is hard to enforce, a certain activities are needed to be provided in order to make the cost allocation process possible. These activities include:

1. cost determination
2. cost classification
3. the choice of cost allocation accounting method application.

Cost accounting system has to be designed in the way which it enables cost determination and cost classification. While cost determination is a process which is also required for the purpose of external reporting, cost classification is a process which is extremely important for internal management reporting and it is a basic assumption for the enforcement of cost allocation process in order to determine the cost of a particular product and therefore enable product profitability evaluation.

2.2.1.   Cost Classifications

Cost classifications directly enable cost allocation. For the cost allocation purpose, costs are needed to be classified according to the following criteria:[4]

1. time period
2. management function
3. accounting treatment
4. traceability to product
5. cost behaviour
6. decision significance
7. managerial control.

 These above mentioned criteria of cost classifications are the most commonly used in accounting theory and practice. The detailed review of cost classifications and it's major sub classifications are presented in the following figure:[5]

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[3] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 482

[4] Cherington J. O., Hubard E. D., Luthy D. H. „Cost and Managerial Accounting", WCB Publishers, Dubuque, Iowa, 1985.

[5] Cherington J. O., Hubard E. D., Luthy D. H. „Cost and Managerial Accounting", WCB Publishers, Dubuque, Iowa, 1985.

Cost Classification   **Major Sub classifications**

| Time period | → | 1) Historical costs
2) Budgeted costs |

| Management function | → | 1) Manufacturing costs
2) Selling costs
3) Administrative costs |

| Accounting treatment | → | 2) Product costs
3) Period costs
4) Capital costs |

| Traceability to product | → | 1) Direct costs
2) Indirect costs |

| Cost behaviour | → | 1) Variable costs
2) Fixed costs |

| Decision significance | → | 1) Relevant costs
2) Irelevant costs |

| Managerial control | → | 1) Controllable costs
2) Uncontrollable costs |

Figure 1. Cost Classifications

It is important to emphasize that the same cost can be included in several or in all cost classifications. But, all cost classifications mentioned above don't have the same significance for particular accounting purposes. For the purpose of cost allocation, the relevant cost classifications are:

- traceability to product
- management function
- accounting treatment.

These cost classifications are needed to be provided by the accounting system of a company in order to enable cost allocation process. The most important cost classification for cost allocation process and inventory evaluation is classification related to accounting treatment.

In order to provide the cost allocation process, all costs of a particular accounting period must be divided into two main categories:[6] *(i) product costs or (ii) period costs.*

Generally, product costs are all costs regarding the manufacturing function of a company. These are manufacturing costs which are directly or indirectly involved in producing products. Product costs include direct material costs, direct labour costs and indirect manufacturing costs. Direct costs are costs that can be identified with particular cost objects. Direct cost is the one that can be traced to the particular product. Indirect manufacturing costs, or overheads, are those costs which can not be traced to the particular product. Because overheads cannot be identified to the particular product, these costs need to be allocated to the product using appropriate accounting methods.

Product costs are related to the finished product and that way affect future economic value. So, from accounting point of view, these costs are capitalised as inventory and held as unexpired until the finished products are sold. Product costs are not charged as expenses in the period in which they are incurred, but in the period in which the finished products will be sold.

Period costs are costs that are charged as expenses in the period in which they are incurred. These costs have no future economic benefit because they are related to the nonmanufacturing functions of company. Period costs become expenses in the same period in which they are incurred and are matched to revenues of the particular accounting period. That way, period costs have immediate impact on financial result in the period of their appearance. Period costs include selling costs and administrative costs. These costs are not related to the production function of the company.

The complete accounting cost treatment is shown in the following figure:
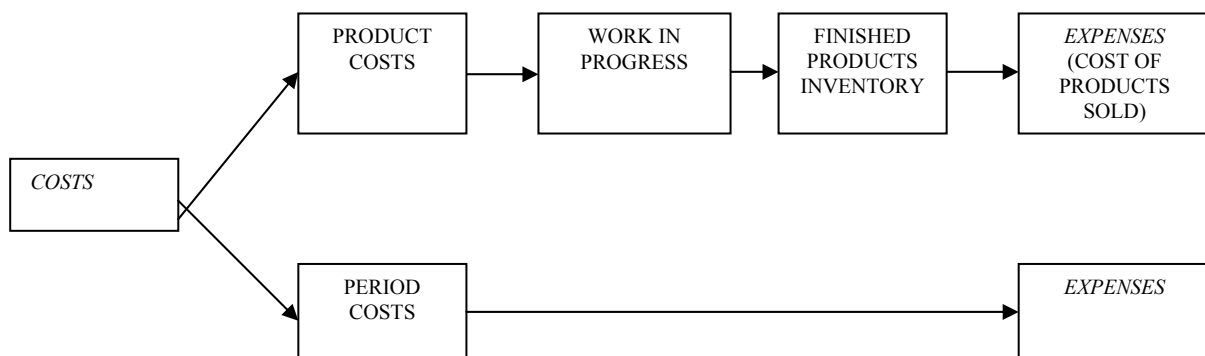
Figure 2. Accounting Cost Treatment

Product costs are capitalised, first like work in progress and then, when products are fully completed, like finished products. During their capitalisation, product costs become an asset and are presented in a balance sheet as inventory. When finished products are sold, the capitalised product costs finally become expenses and are presented in an income statement to match with corresponding revenues. Period costs are expenses and they are presented in an income statement in the period of their appearance.[7]

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[6] R. S. Kaplan, A. A. Atkinson: *Advanced Management Accounting*, Prentice Hall International, Englewood Cliffs, New Jersey, 1989., p. 9

[7] Perčević H., „Accounting Policies on Inventories According to IAS 2 and their Impact on Financial Results", Babes – Bolyai University of Cluj-Napoca, Faculty of Economics and Business Administration, International

2.2.2. Phases of Cost Allocation Process

Basically, cost allocation process is carrying out through the following phases:

1. the assignment of direct costs to cost objects
2. the allocation of indirect costs from a support department to an operating division (manufacturing)
3. the allocation of indirect costs from an operating division to products (or services) which are defined as a cost objects
4. the determination of cost of a product (by adding the allocated indirect costs to previously assigned direct costs of a particular product).

Before the cost allocation process is started to carry out, costs must be determined and appropriately classified in order to enable the cost allocation process. Costs must be firstly classified as product costs and period costs. Product costs are inventoriable costs, while period costs are considered as expenses of the accounting period. So, from the accounting point of view, product costs are relevant costs for cost allocation process, because these costs are creating the value of particular products. Product costs must be properly allocated to the products which caused their appearance. In order to make the cost allocation process easier to enforce, product costs are classified as direct and indirect costs. Direct product costs can be directly traced to the particular product and therefore the assignment of these costs to products are easy. Indirect product costs cannot be directly traced to the products so these costs need to be allocated to products by the appliance of certain accounting method. The whole cost allocation process is focused on indirect product costs, because only an objective allocation of indirect costs to products can lead to reliable product profitability evaluation and therefore make a decision making process more qualitative. Indirect product costs are firstly allocating from a support departments to an operating divisions (manufacturing) and, after that, from the operating division to particular products. Different accounting methods are using for indirect cost allocation from a support departments to operating divisions and for allocation from operating division to products. After the indirect cost allocation to products is completed, the final cost allocation phase is the determination of cost of a particular product. In order to determine the cost of a product, allocated indirect costs are adding to product's previously assigned direct costs. When total costs of a particular product are divided with the quantity of production, the cost of a product per unit is computed and cost allocation process is completed.
One of the most important issues in cost allocation process is the choice of accounting methods which will be applied for indirect cost allocation to operating divisions and to products.

3.   ACCOUNTING METHODS FOR COST ALLOCATION

Cost allocation is a complex process which is carrying out through the appliance of certain accounting methods. When deciding which accounting method to apply, the choice of accounting method also includes:

- the choice of costs which need to be allocated
- the choice of cost pools
- the choice of appropriate cost allocation bases
- the calculation of cost allocation rate(s).

For the purpose of external financial reporting, only production costs need to be allocated to products, while period costs are recognized as expenses of the accounting period. Costs, which need to be allocated, are grouped into defined cost pools in the process of cost allocation. The cost pools are formed when company uses more cost allocation bases. Costs are allocated from cost pools to products by identified cost allocation bases. Cost allocation base is the factor that links in a systematic way an indirect cost (or group of indirect cost) to a particular cost object (product or service).[8] On the basis of cost allocation base, cost allocation rates are calculated. These rates are using to perform the cost allocation from cost pools to cost objects.

In cost allocation process, two kinds of accounting methods are needed to be applied:

1. accounting methods for allocating indirect costs of a support department to operating divisions
2. accounting methods for allocating indirect costs from operating divisions to cost objects (products and services).

3.1.   Accounting Methods for Allocating Indirect Costs from Support Departments to Operating Departments

Companies are usually distinguishing operating department from support departments. An operating department is a production department in manufacturing companies in which the products are manufacturing. A support department, also called service department, provides the services that assist other internal departments in the company.[9] Direct production costs are directly allocated to operating department and, within them, to particular products. Indirect production costs can be caused by both types of departments – operating and support departments. Indirect costs of support departments need to be allocated to operating departments and, after that, to products as cost objects. Indirect costs of operating departments must be allocated to particular products only.
Accounting theory and practice recognize three methods of allocating the indirect costs of support departments to operating departments:[10]

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[8] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 96 - 97

[9] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 526

[10] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 526

1. *direct allocation method*
2. *step-down allocation method*
3. *reciprocal allocation method.*

3.1.1.   Direct Allocation Method

The *direct allocation method* is the most widely used method of allocating support department costs. This method allocates the costs of support department directly to the operating departments. The basic advantage of this method is its simplicity to apply. This method doesn't require the prediction of the usage of support department services by other support departments. A main disadvantage of the direct method is its failure to recognize reciprocal services provided among support departments.[11] Because of that disadvantage, direct method is not considered as an accurate and objective method of cost allocation.

3.1.2.   Step-Down Allocation Method

The *step-down allocation method* is also called the sequential allocation method. This method allows for partial recognition of the services provided by support departments to other support departments. The appliance of the step-down allocation method requires the support departments to be sequenced in the order that the step-down allocation is to proceed. A popular step-down sequence begins with the support department that renders the highest percentage of its total services to other support departments. The sequence continues with the department that renders the next highest percentage, and so on, ending with the support department that renders the lowest percentage. Under the step-down method, once a support department's costs have been allocated, no subsequent support department costs are allocated back to it.[12] The step-down allocation method is considered as more accurate and objective than the direct method, although this method doesn't recognize all reciprocal services provided among support departments.

3.1.3.   Reciprocal allocation Method

The *reciprocal allocation method* allocates costs by explicitly including the mutual services provided among all support departments. This method fully incorporates interdepartmental relationships into support department cost allocations.[13] By using this method, the costs of a support department are allocated to other support and operating departments according to the services provided to those departments. The reciprocal allocation method is enforcing through the following three steps:[14]

1. expressing support department costs and support departments reciprocal relationships in the form of linear equations
2. solving the set of linear equations to obtain the complete reciprocated costs of each support department

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[11] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 96 - 97

[12] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 528 - 529

[13] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 529

[14] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 529 - 530

3. allocating the complete reciprocated costs of each support department to all other departments (both support department and operating departments) on the basis of the usage percentages (based on total units of service provided to all departments).

The reciprocal allocation method is considered as the most accurate and objective method and that is its main advantage. But, the basic disadvantage of this method is its complexity. The reciprocal method is very hard to implement and to apply.

3.2. Accounting Methods for Allocating Indirect Costs from Operating Departments to Cost Objects (Products)

When indirect costs of support departments are allocated to operating departments, all indirect costs are than allocated from operating departments to particular products which are identified as cost objects. There are three basic accounting methods used in manufacturing companies in order to determine the cost of a particular product:[15]
1. job order costing
2. process costing
3. activity based costing.

This accounting methods are also considered as costing systems whose main pupose is to determine the cost of a product. The first two costing systems are known as traditional costing systems. While the appliance of traditional costing systems depend on the type of a manufacturing process, activity based costing system can be applied regardless the type of manufacturing process. The main issue for companies is: when is convenient to use traditional costing systems and when activity based costing system should be applied? To answer on this question the operating conditions and the manufacturing cost structure should be considered.[16]

3.2.1.   Traditional Costing Systems[17]

The basic distinction between job costing and process costing system is in determination of cost object. In job costing cost object is a job which consists of a unit or multiple units of distinct products or services. In process costing cost object is masses of identical or similar units of a product or service. Therefore, job costing can be applied in manufacturing which is initiated by a customer's order, while process costing can be used in mass production which is continually performing and is not initiated by a customer's order.

Cost allocation is similar in job costing and in process costing. In both costing systems direct manufacturing costs are traced to products or services. These costs are directly assigned to particular products or services which cause their appearance. Direct manufacturing costs include direct material costs and direct labour costs. The main problem of every costing system is indirect manufacturing costs allocation. Because these costs cannot be directly identified to particular product or service, indirect manufacturing costs need to be allocated to products or services on some reasonable bases which correctly present the relationship between indirect manufacturing costs and certain product. This relationship is often very

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[15] Lucey T., Costing, DP Publications, London, 1996., page 175 - 176
[16] Perčević H., „The Impact of Costing Systems on Product Profitability Evaluation", microCAD 2006., International Scientiffic Conference, University of Miskolc, March 15 – 17, 2006., zbornik radova – section P Economic Challenges, str. 253 - 258 Miskolc
[17] Perčević H., „The Impact of Costing Systems on Product Profitability Evaluation", microCAD 2006., International Scientiffic Conference, University of Miskolc, March 15 – 17, 2006., zbornik radova – section P Economic Challenges, str. 253 - 258 Miskolc

difficult to express by a single allocation base. It is important to emphasise that there is no allocation base which can accurately provide indirect cost allocation to products. Chosen cost allocation base can be more or less objective, but it can't be 100% accurate. Indirect manufacturing costs are usually assigned to products or services using the following cost allocation bases:[18]

1. direct labour hours,
2. machine hours,
3. direct material costs,
4. total direct costs,
5. quantity of production…

Indirect manufacturing costs are assigned to cost object by an overhead allocation rate which is computing on the chosen cost allocation base.[19]

$$OAR = \frac{total\ indirect\ manufacturing\ costs}{cost\ allocation\ base}$$

Companies can use either one or more overhead allocation rate for assigning indirect manufacturing costs to products or services. It is considered that the more overhead allocation rates are used the cost per unit is more accurate and the product profitability evaluation is more reliable and more objective for decision making.
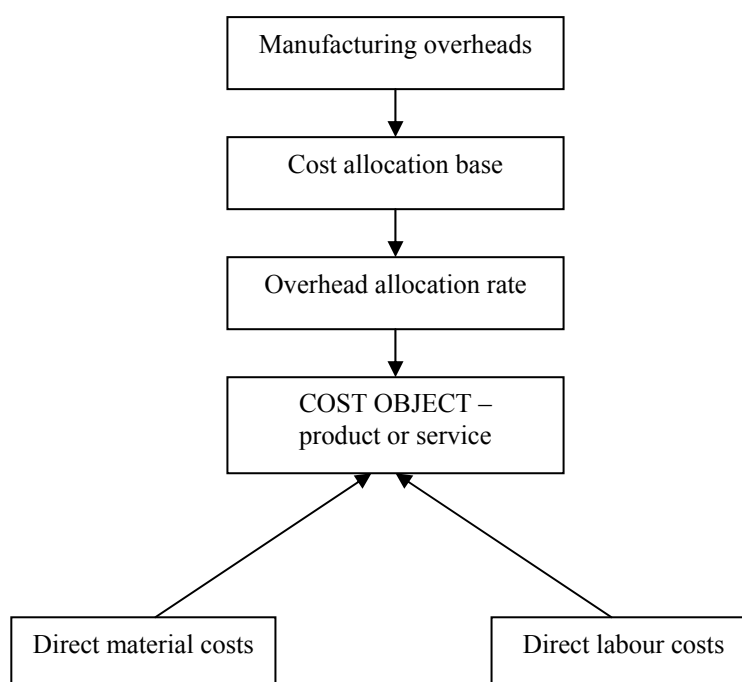
Figure 3. Cost allocation in traditional costing systems

In traditional costing systems the indirect manufacturing costs are allocated to cost objects on arbitrary bases which could affect on product profitability evaluation. The impact of traditional costing systems appliance on product profitability evaluation depends on certain

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[18] Engler C., Managerial Accounting, Irwin, Homewood, Illinois,1988., page 427
[19] Lucey T., Costing, DP Publications, London, 1996., page 88

conditions among which is manufacturing cost structure considered as the most important. If indirect manufacturing costs participate significantly in total manufacturing costs, traditional costing system may cause the wrong picture of product profitability evaluation. Otherwise, traditional costing system can provide relatively objective product profitability evaluation.

3.2.2.   Activity-Based Costing System[20]

ABC system was designed in order to correct the deficiencies of traditional costing systems. The initial purpose of ABC system is to provide the fair and accurate cost allocation and therefore product profitability evaluation also. According to that, ABC system focuses attention on indirect manufacturing costs. The aim is to define the most appropriate way for indirect manufacturing costs allocation to cost objects.

The main assumption of ABC system is: products consume activities and activities consume resources.[21] The more activities are set up, the more complex is ABC system. An activity is defined as any event, action, transaction or work sequence that incurs cost when producing a product or providing a service.[22] In ABC system direct manufacturing costs are also directly traced to products or services, so the main attention is paid on indirect manufacturing costs which are allocated to activities instead to departments or jobs (like in traditional systems). Basically, the application of ABC system is going through two main phases. In the first phase indirect manufacturing costs are allocated to activity cost pools. It is important to determine the correlation between particular indirect manufacturing cost and identified activity. Every indirect manufacturing cost must be assigned to proper activity which causes its occurrence. The second phase in ABC application is assigning indirect manufacturing costs from activity cost pools to products using defined cost drivers. A cost driver is any factor or activity that has a direct cause – effect relationship with the resources consumed.[23] ABC system uses multiple cost allocation bases to assign indirect manufacturing costs to products or services. The usage of multiple allocation bases can provide a more accurate and objective product profitability evaluation.

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[20] Perčević H., „The Impact of Costing Systems on Product Profitability Evaluation", microCAD 2006., International Scientiffic Conference, University of Miskolc, March 15 – 17, 2006., zbornik radova – section P Economic Challenges, str. 253 - 258 Miskolc

[21] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 141

[22] Horngren C.T., Datar S.M., Foster G., Cost Accounting – A Managerial Emphasis, Prentice Hall, New Jersey, 2003. page 141 or Weygandt J.J., Kieso D.E., Kimmel P.D., Managerial Accounting, John Wiley & Sons, 2005., page 144

[23] Weygandt J.J., Kieso D.E., Kimmel P.D., Managerial Accounting, John Wiley & Sons, 2005., page 144

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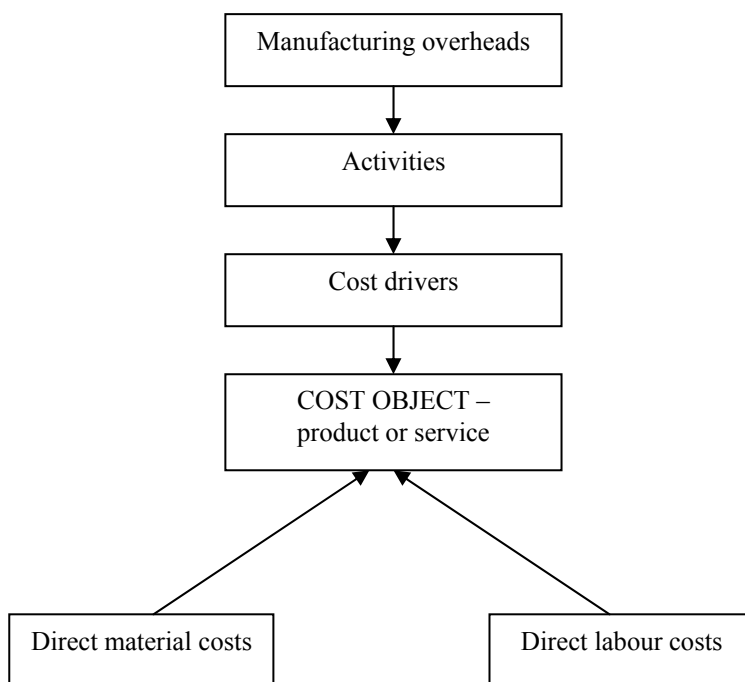
Figure 4. Cost allocation in ABC system

Cost drivers should correctly show the relationship between certain activity and cost objects. Otherwise, even this costing system can lead to product cost distortion and unreliable product profitability evaluation. ABC system is very complex and takes much more effort and resources to implement than traditional systems. Its application is justified only if the benefits from ABC system exceed costs of its implementation. So, when management of a company decide to implement ABC system must be sure that ABC system will provide the more useful cost information for business decision making than traditional systems.

4. ACCOUNTING METHODS FOR COST ALLOCATION AND PRODUCTION COST STRUCTURE IN CROATIAN PRODUCTION COMPANIES

The empirical survey conducted in Croatian production sector had the main point to determine production cost structure and accounting methods applied in Croatian production companies. The sample has included the most significant Croatian public production companies which take the highest portion of total Croatian production. The research has conducted through the questionnaire which was sent to 80 Croatian production companies listed on the Zagreb stock exchange and classified as large entrepreneurs according to the Croatian Accounting Law. All companies taken in the sample are organized as joint-stock companies. Among these 80 companies, 35 actively participated in the research. So the return of questionnaire was 43,75% and it was the relevant base for research conclusion regarding production cost structure and the appliance of cost allocation accounting methods in Croatian production sector.[24]

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[24] Statistical analysis of the research has been carried out through the SPSS program. For the analysis of the research results, the methods of descriptive statistics have been used.

4.1.   Production Cost Structure Analysis

One of the most important factors which must be considered in order to choose which costing system to apply is manufacturing cost structure. Manufacturing cost structure can be used as a technological development indicator of national manufacturing sector. The most relevant technological development factor of national manufacturing sector is the portion of indirect manufacturing costs (manufacturing overheads) in total manufacturing costs. According to the survey, in the majority of Croatian manufacturing companies the portion of indirect manufacturing costs in total manufacturing costs is below 30%. This indicates the technological underdevelopment of Croatian manufacturing sector.

In recent 5 years indirect manufacturing costs have increased in 42,9% of companies, but the increase wasn't significant. Indirect manufacturing costs have maintained at the same level in 31,4% of companies, while 25,7% of companies have recorded indirect manufacturing costs reduction. This indirect manufacturing costs movement in recent 5 years confirms the technological underdevelopment of Croatian production sector.

The portion of direct labour costs in total production costs is below 20% in the majority of companies. This is in accordance to modern technologically developed production sectors. But, the main reasons for such low level of direct labour costs in total production costs are production reduction and therefore direct labour reduction, not production process automation (like in developed production sectors). Survey also indicates that in recent 5 years in 42,9% of companies direct labour costs have decreased, but not significantly. In the same period, direct labour costs have maintained at the same level in 28,6% of companies, while 22,9% of companies have recorded the increase of direct labour costs. This direct labour costs movement also indicates that Croatian production sector hasn't provided with automation in recent 5 years and is technologically underdeveloped.

Direct material costs are the most significant cost category in Croatian production cost structure. The portion of direct material costs in total production costs is between 50 – 80 % in the majority of companies.
Production cost structure of Croatian production sector can be illustrated in this figure:

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┌──────────────────────────┐
│                          │
│   Direct material costs  │
│       50% - 70 %         │
│                          │
│                          │
│                          │
│                          │
└──────────────────────────┘

┌──────────────────────────┐
│   Direct labour costs    │
│         < 20%            │
└──────────────────────────┘

┌──────────────────────────┐
│  Indirect production     │
│         costs            │
│         < 30%            │
└──────────────────────────┘
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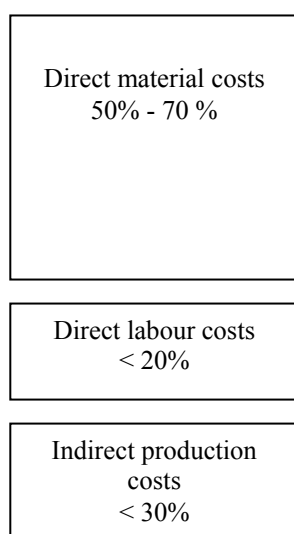
Figure 5. Production cost structure in Croatian production sector

Direct production costs are dominating in total production costs in Croatian production sector. The portion of indirect production costs is below 30%, while in developed production sector this percentage is above 50%.
By this presented empirical research results, the hypothesis H2 has been confirmed.

4.2.   Accounting Methods for Cost Allocation in Croatian Production Companies

Accounting methods for cost allocation in Croatian production companies are connected to the production cost structure. The appliance of certain accounting method mainly depends on production cost structure. First hypothesis is arguing that direct production costs are highly represented in cost structure of production companies in Croatia. So, the formulation of null and alternative hypothesis is as follows:

H0: Direct production costs are taking the highest portion in production cost structure in the majority of Croatian production companies and it is lower or even to 0,75 (75 %), or H0: p ≤ 0,75;
H1: Direct production costs are taking the highest portion in production cost structure in the majority of Croatian production companies and it is biger then 0,75 (75 %), or H1: p > 0,75.

Testing was conducted at significancy level of 5%, so the conclusion is that the null hypothesis H0 is not acceptable.[25]

According to the empirical research results, the majority of Croatian production companies (77%) are applying direct allocation method for allocating costs from support departments to operating departments, while the less used method is step-down method (only in 2% of companies).[26]

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[25] The significance level is at 5%, allowable mistake at 0,1 and the population proportion is 0,85, sense the tested hypothesis are tested on a proportion of primary data set bigger than 0,75 (0,85 – 0,1).

$$n_0 = \frac{z_{\alpha/2}^2 \pi(1-\pi)}{e^2} \tag{1}$$

$$n = \frac{n_0}{1+\frac{n_0}{N}} \tag{2}$$

Where:

z – z-score,
π –estimated proportion of primary data set,
e – allowable mistake,
N – the size of primary data set,
n – the size of the sample.

[26] Perčević H., Utjecaj računovodstvenih metoda alokacije troškova proizvodnje na ocjenu profitabilnosti proizvoda, magistarski rad, Ekonomski fakultet Zagreb, 2005., str. 184.
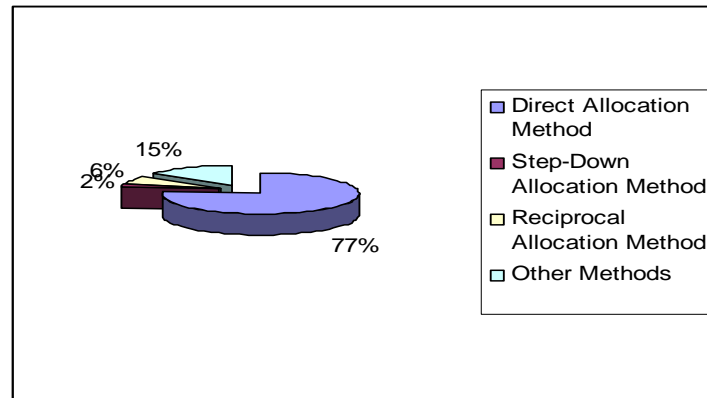
Figure 6. Accounting Methods for Allocating Indirect Costs from Support Department to Operating Departments

Due to determined production cost structure, traditional costing systems, as accounting methods for allocating indirect production costs from operating departments to products, are appropriate costing systems for product profitability evaluation in Croatian production companies. Since indirect production costs are not dominating in total production costs in the majority of Croatian production companies, the appliance of traditional costing system in these circumstances could obtain relatively accurate and objective product profitability evaluation. The empirical survey conducted in Croatian production sector confirms that traditional costing systems are used in the majority of Croatian companies for product profitability evaluation.[27]
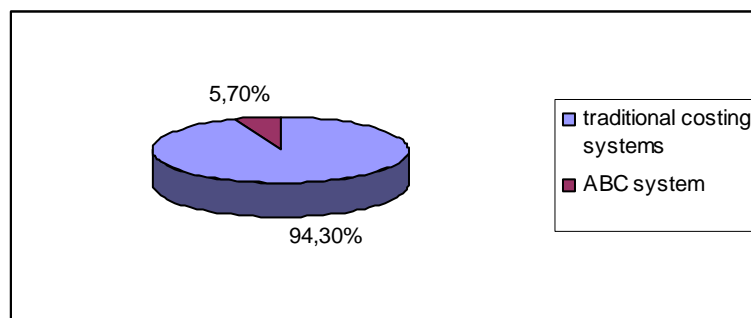
Figure 7. Costing systems applied in Croatian production sector

The second hypothesis was set up that the majority of Croatian production companies are using the traditional accounting methods for cost allocation. So, the formulation of null and alternative hypothesis is as follows:

H0:The majority of Croatian production companies are using traditional accounting methods for cost allocation and it is lower or even to 0,75 (75 %), or H0: p ≤ 0,75;
H1: The majority of Croatian production companies are using traditional accounting methods for cost allocation and it is biger then 0,75 (75 %), or H1: p > 0,75.

The alternative hypothesis is accepted.

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[27] Perčević H., „The Impact of Costing Systems on Product Profitability Evaluation", microCAD 2006., International Scientiffic Conference, University of Miskolc, March 15 – 17, 2006., zbornik radova – section P Economic Challenges, str. 253 - 258 Miskolc

According to the empirical survey, only 5,7% of companies in Croatia are applying ABC system, while the other 94,3% of companies are using traditional costing systems for product profitability evaluation. Also, it is determined that process costing system is applied in 54,3% of those companies which are applying traditional costing systems whiled in 31,4% of such companies job order costing system is used. The rest of companies with traditional costing system appliance are using both traditional costing systems.[28]

These presented research results confirm the initial hypothesises of the research. The majority of Croatian production companies are using traditional accounting methods for cost allocation, because these methods are appropriate for the technologically underdeveloped production sectors which characterises the high level of direct production costs in total production cost structure. Research results indicate that direct production costs are taking the highest portion in production cost structure in the majority of Croatian production companies. Because of such production cost structure, modern cost allocation accounting methods wouldn't contribute to more reliable company profitability evaluation and business decision making.

5. CONCLUSION

Cost allocation process is not an easy, but rather difficult and complicated procedure which requires the appliance of appropriate accounting methods. The process of allocating costs to cost objects is enforced through the application of certain accounting methods. These accounting methods often cannot provide fair and objective cost allocation, because these methods are based on certain cost allocation bases which are arbitrary and not always appropriate for reliable cost allocation. Therefore, accounting theory and practice are constantly trying to improve the existing methods and to develop the new ones which could provide the fair and objective cost allocation.

One of the most important factors which affect the choice of the appliance of accounting method is the production cost structure. The reliability of accounting method for cost allocation significantly depends on the production cost structure. In order to determine which accounting methods for cost allocation are used in Croatian production companies, an empirical research has been conducted in the most significant Croatian production companies. The research results of an empirical survey conducted in Croatian production sector indicates that direct production costs take the highest portion in total production costs in Croatian production companies. According to this finding, Croatian production sector can be considered as a technologically underdeveloped production sector. In these conditions, traditional accounting methods can provide objective and relatively accurate cost allocation and therefore product profitability evaluation also. The results of empirical survey confirm that traditional accounting methods are used for cost allocation and product profitability evaluation in the majority of Croatian production companies. These research results confirm the initial hypothesises set up at the beginning of the research.

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[28] Perčević H., Utjecaj računovodstvenih metoda alokacije troškova proizvodnje na ocjenu profitabilnosti proizvoda, magistarski rad, Ekonomski fakultet Zagreb, 2005., str. 185.

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WHICH FACTORS AFFECT THE DEVELOPMENT OF SMALL BUSINESS IN TRANSITION ECONOMIES? CASE OF RUSSIA

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Key Words*: Small Business, Russia, Development*

1. INTRODUCTION

Small and medium-sized enterprises (SMEs) are traditionally recognized as a powerful drivers for the economy. On the other hand, small business is a rather young phenomenon in transitional economies such as Russia. There are two main types of small business in the republics of the former Soviet Union: small enterprises and cooperatives (Isakova, 1997). Cooperatives were organized since 1986 on the early stages of Perestroika, and they had significant privileges in operations. First small enterprises were established in 1990 (D'Cruz & Hussain, 1998).

In 1991 the Soviet Union comprising 15 republics, was dissolved. This former superpower with 288 million inhabitants was divided into 15 independent states. Russia is the biggest of Soviet republics (with over 150 million inhabitants) (Tiusanen, et. al., 2004). The main economic indicators of Russia are presented below (Table 1).

Table 1. Main Economic Indicators of Russia

	1998	2000	2002	2004
GDP, real growth, %	-5.3	10.0	4.7	6.5
Inflation of consumer prices, %	27.6	20.8	16.0	11.0
Unemployment rate	13.5	10.5	8.0	8.2
Current account (% of GDP)	0.1	18.0	8.5	9.9
Currency reserves, EUR Billion	6.7	26.1	42.3	98.1

Source: WIIW, 2005

Due to the different starting points after the collapse of the planned economy, development of small business in the former Soviet republics cannot be compared with small business development in more advanced transition economies in Central and Eastern Europe. In fact, in all of the relatively successful transition economies, new small private businesses have served as a primary engine of growth, absorbing resources from the state and former state sectors and exhibiting notable dynamism in the context of fierce competition and hard budget constraints. Some studies suggest that the creation of dynamic new and usually small firms out of the "ruins" of old enterprises has been the most vital part of the overall restructuring process and productivity growth. A thriving small business sector also reduces the social costs of transition by absorbing released workers from downsizing in large restructuring firms (OECD, 2002).

Despite strong recent economic growth in Russia, development of small business sector has not been satisfactory: share of small business in GDP of Russia has remained around 10%. According to recent empirical studies made in Russia, small companies experience problems such as high taxes, frequently changing legislation, political instability, lack of external financing, unfair competition (IFC, 2002, SME Observatory Report, 2001).

The significance of the small business sector in a country's economy can be measured by various indicators. The commonly applied are the following:

- Density of small businesses in relation to population
- The contribution of small business to the GDP (Gross domestic product)
- Small business share of employed population.

This paper studies factors affecting the development of small business in Russia. This is done by analysing the influence of socio-economic factors to the small business development. Paper utilizes a large Russian Federal State Statistical Service (Rosstat) database of socio-economic indicators of 87 Russian regions. Database includes large number of key indicators measuring level of economic and social development. Study employs definitions where small business is determined as an activity realized by certain business units or individuals, matching criteria set by the Russian governmental bodies. The criteria can be number of employees, turnover, assets values etc. and is introduced in chapter 3.

2. SMALL BUSINESS RESEARCH IN TRANSITIONAL ECONOMIES

The research on small business has traditionally focused on three main blocks of questions:

1. Obstacles and hurdles of small business development (Pissarides et. al. 2003, Hallberg 1999, Buckberg, 1997, Aslund, 1994, Zhuplev et. al., 1998, Filatotchev et al. 1999 and others)

2. Effects of small business to the economy (Acs and Audretsch, 1993, Smallbone et al, 2001, Smallbone and Welter, 2001, and others);

3. Factors affecting the development of small business (Astrakhan et. al 2003, Smallbone and Welter, 2001, Blanchard, 1997, Winiecki, 2001, and others).

Availability of external financing is often mentioned as a constraint for small business development. The finance constraints issue was one of main focus of EBRD study (Pissarides, 1999), which revealed that only small businesses operating on niche markets with high profits were eligible for financing. Hallberg (1999) proposed criteria to examine market environment and constraints for small businesses: entry barriers; regulatory and bureaucratic barriers; unofficial levies; property rights; tax structures; labour market rigidities and infrastructure. Similar approaches have been also in other studies (Buckberg, 1997).

In Russia the lack of entrepreneurial tradition has been a large problem for small business development (Aslund, 1994). The lack of entrepreneurial tradition was also recognised in a study comparing small businesses in USA and Russia (Zhuplev et. al., 1998).

It is often stated that one of the main positive effects of small businesses to the economic development is the creation of new working places. Potentially, small companies generate employment, and by that they contribute to the development of a diversified economic structure, and in some cases, as a source of innovative activity (Acs and Audretsch, 1993).

Small business positively influence development of every economy, however the specific of transition period opens more possibilities for small business contribution. For example, the development of small business can contribute to economic adjustment to flexible production systems with wider range of consumer services (Smallbone et al, 2001).

Some studies reflect the specific motives for starting the small business in the transition economies. Surprisingly, the main reasons were desires to be independent, to increase income and personal ambitions. Remarkably fewer studies have been focused on the promotion of small business in transition economies. In study focusing on the prospects of small businesses after decade of transition (Astrakhan et. al 2003), authors suggested that political and economic environment requires significant change. Smallbone and Welter (2001) stress the importance of government, affecting nature and extent of entrepreneurship in transition countries by setting appropriate regulations relating to property, licensing and the registration of enterprises as well as bankruptcy, contract and taxes.

Positive development of small businesses will also lead to resource allocation from old state structures to private sector (Blanchard, 1997). Winiecki (2001) divided the conditions that promote the sector of enterprises into three levels: Low level: clear rules and policies; Intermediate level: stabilisation, liberalisation and privatisation; High level: political, economic and social fundamentals.

External factors like globalization and economic development have an effect to small business development (Verheul, 2002). On the supply side entrepreneurship is dominated by characteristics of the population (education, wage differences, unemployment rate etc.).

3. SMALL BUSINESS IN RUSSIA

When analysing small business development it should be noted that definitions of small business do vary between countries. The EU defines micro-enterprises, and small and medium-sized enterprises in terms of their size, i.e. the number of persons occupied and the turnover or the balance-sheet total. The EU's definition is based on the Commission

Recommendation of 1996 concerning the definition of small and medium-sized enterprises (Official Journal L 107, 1996) (see Table 2).

Table 2. Classification of SMEs in EU, definition, up to 31.12.2004

	Micro	Small	Medium
Staff thresholds	< 10	10 – 49	< 250
Turnover thresholds, mln EUR	-	7	40
Balance-sheet total thresholds, mln EUR	-	5	27

Source: europa.eu.int

Russian legislation and state statistics recognise two categories of economic entities with respect to their size: small business units (SBU), and medium and large - sized enterprises. The status of a subject of SBUs is introduced by the Federal Law of 1995 # 88-FZ "On State Support of Small Business in the Russian Federation". SBU in Russia include individual entrepreneurs without legal status, small-sized enterprises and farm enterprises. Small-sized enterprises should not have in their charter capital more than 25 % of state and municipal ownership share, and have an annual number of staff members not exceeding the limits: 100 persons in industry, construction and on transport, 60 persons in agriculture and scientific and technological areas, 30 persons in retail trade an consumer services to the public and 50 persons – in other types of activity (Federal Law, 1995 # 88-FZ).

In 2004, there were around 953,000 small enterprises (SEs) in Russia. According to data of the Russian Rosstat for 2004, the total number small business units has increased by almost 25 % compared to the level of 1998 (see Table 3). This is mainly reasoned by growth of number of individual entrepreneurs (IEs) by 31 %. The number of SBUs amounts to 65 % of the total number of companies (72.9 % in 1998), of which 52 % are IEs (55.4 % in 1998), and only 10.4 % (13.4 % in 1998) constitute small companies (SEs).

Table 3. Number of All Firms and Small Firms in Russia, thousands

	1998	1999	2000	2001	2002	2004	Change 98-04, %
SBUs, including:	4 736	5 025	5 378	5 603	5 771	5 944	25
SEs	867	891	879	844	881	953	10
IEs	3 599	3 873	4 237	4 497	4 626	4,725	31
Farmers	270	261	262	262	264	266	-2
Large and medium	1 758	1 948	2 199	2 481	2694	3 196	82
Total	6 494	6 973	7 577	8 084	8 465	9 139	35

Source: Russian Rosstat, authors' calculations

In Russia the contribution to GDP from small companies remains on a very modest level. In 1998 Russian companies contributed only 10.8 % to GDP. In 2004 this indicator was level of 11.2 %.

The sector distribution of small enterprises has not changed significantly over the last five years. The non-manufacturing sectors have remained the most attractive for small enterprises. This may be explained firstly by the fact that the service sector requires less investments than the production sector and secondly by the well-known trend of domination of the non-material sphere over the production (Astrakhan, et. al. 2003). However, the small firms' distribution by industry is partially influenced by transition effects, such as the inheritance of

disparities in the planned economy based on manufacture, which consequently created a large market niche in services provision (Observatory report, 2001).

The distributions of small companies by industries are presented in Table 4. Retail trade and catering is the most attractive sector for small enterprises. At the end of the year 2004 in this sector there were 58 % of all small companies in Russia.

Dynamics of employment in small business sector in Russia are presented in Table 5. In 2004, small companies employed approximately 7.8 million people in Russia.

Table 4. Sectoral Distribution of SEs in Russia

	1999	2002	2004	Growth 99-04, %
Retail and catering	400 000	422 400	441 200	10
Manufacturing	136 200	121 000	128 000	-6
Construction	135 900	113 000	121 300	-11
Science and research	37 100	22 700	20 700	-44
Transport	21 000	20 200	26 300	25
Agriculture	13 500	15 600	19 300	43
Total	743 700	714 900	756 800	1.7

Source: Russian Rosstat

Table 5. Employees in SEs in Russia, own calculations

	1999	2002	2004
Number of employees in small firms, mln	6.2	7.9	8.5
Small firms' share of the employed population, %	10.1	12.1	12.6

Source: Russian Rosstat, own calculations

4. RESEARCH DATA, HYPOTHESIS AND METHOD

The research data consists of key socio-economic indicators of Russian regions for the years of 1998 – 2004. The number of regions in the case of Russia was 87 (official number of the Russian regions is 89). The figures for the Chechen Republic and Nenets autonomous region were not included in the calculations concerning Russia due to the lack of separate statistical data. All data are provided by Russian Federal State Statistical Service (Rosstat).

Authors hypothesise that economic and social factors have a significant effect on Russian small business development. The development of small business is measured by three indicators (dependent variables):

- Density of small businesses in relation to population
- Small business share of employed population.
- The contribution of small business to the GDP (Gross domestic product)

The economic growth in Russia has remained strong during the last six years. As economic development brings in more opportunities for consumers to satisfy their needs, new

opportunities for small firms are created. Small companies are able to supply new and specialised goods for the customers. (Grilo & Turik 2004)

H1. High regional GDP per capita has a positive effect on the small business development

The economic growth is normally reflected on the peoples' incomes. In Russia around 60-70% of small businesses are established on the service sector. As the employment share of the service sector tends to grow hand in hand with the per capita income (Grilo & Turik 2004), we suggest that in regions with higher average monthly income per capita, the development of small companies is influenced positively.

H2. High average monthly income per capita on the region has a positive effect on the small business development
Authors state that low regional unemployment rate indicates economic prosperity, and should have positive effect to the number of small companies. Previous studies have provided similar conclusions (Storey, 1994).

H3. Low level of regional unemployment has a positive effect on small business development

Globalisation is considered as one of the factors encouraging small business: people become aware of consumer goods available in other countries (Grilo & Turik 2004). The level of internationalisation, in this context, is measured by two indicators: foreign direct investments (FDI) per capita, and the openness of economy. The openness of economy is measured by export and import share in regional GDP. We suggest that high level of internationalisation has a positive effect on small business development.

H4. The high level of FDI per capita on the region has a positive effect on small business development

H5. The openness of the economy has a positive effect on small business development

We suggest that high spending on the Research and Development (R&D) has a positive effect on small companies' development due to their innovativeness and flexibility. Christensen (2000) reached similar conclusions, and Grilo & Turik (2004) mentioned technological developments as a factor favouring small-scale production.

H6. Governmental R&D spending promotes small business development

The interrelationship between population density or urbanisation rate and the small business activities is ambiguous. On one hand, increasing population density favours economies of scale, on the other hand it guarantees adequate infrastructure for start-up enterprises. Previous studies have shown negative effect in western countries (Noorderhaven 2002), but authors assume positive effect in transitional economies.

H7. High regional urbanization level has positive effect on small business development.

We suggest that high share of educated people has a positive effect on small business development. However, previous studies have provided contradictory results (Wennekers et. al., 2002).

H8. The high share of academic students in the population of region has a positive effect on small business development

In order to detect possible causalities between the small business activity and socio-economic indicators, number of correlation matrixes was calculated for the values of the indicators in different administrative regions of Russia. Pearson correlation coefficient was used as a proxy of the correlation. Stepwise regression analysis was used to further investigate the causal relationships between the variables.

Correlation coefficients were calculated for the following variables: *Dependent variables:* number of small enterprises (SEs) / 1 000 people (density of SEs), SEs' share of the employed population (SEs' employment effect), SEs' share of GDP (SEs' economic significance).
The database of socio-economic indicators included over fifty independent variables, but due to the high co-variance and correlations they were narrowed down in numbers and classified into three groups. The independent variables are the following:

- Economic welfare indicators: GDP/capita, average monthly income /capita, unemployment rate.
- External influences: Openness of the economy, cumulative FDI/capita.
- Governmental policy aspects: R&D expenditure /GDP, academic students share of population and share of urban population.

The independent variables were considered as explanatory variables for small business development.

5. RESEARCH RESULTS

The results of statistical analysis are presented in this chapter. The correlation matrix calculated for the Russian regions is presented in the Table 6 below.

Table 6. Correlation matrix – Russia

	Number of SEs per 1000 people	SEs' share of the empl. population	. SEs' share of the GDP
1. GDP per capita	0.127	0.076	-0.165
2. Average monthly income per capita	0.296**	0.267*	-0.093
3. Unemployment rate	-0.344**	-0.374**	-0.238*
4. Cumulative FDI per capita	0.319**	0.247**	0.111
5. Openness of the economy	-0.052	-0.107	-0.100
6. R&D Expenditure / GDP	0.568**	0.617**	0.575**
7. Share of urban population	0.592**	0.524**	0.408**
8. Academic students / population	0.617**	0.632**	0.351**

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

As the largest cities in Russia Moscow and St. Petersburg seemed to have a surprisingly strong effect on the results, authors opted also to calculate the correlation coefficients excluding these two cities. These results are presented in Table 7 below. Values of the

Pearson correlation coefficient are generally lower when St. Petersburg and Moscow are excluded. However, most of the dependencies remain statistically significant.

Table 7. Correlation matrix - Russia; St. Petersburg and Moscow excluded

	Number of SEs per 1000 people	SEs' share of the empl. population	. SEs' share of the GDP
1. GDP per capita	0.028	-0.058	-0.178
2. Average monthly income per capita	0.027	-0.063	-0.122
3. Unemployment rate	-0.291**	-0.330**	-0.220*
4. Cumulative FDI per capita	0.327**	0.208	0.113
5. Openness of the economy	-0.074	-0.151	-0.103
6. R&D Expenditure / GDP	0.461**	0.555**	0.548**
7. Share of urban population	0.563**	0.459**	0.387**
8. Academic students / population	0.424**	0.446**	0.329**

*Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

The results of the step–wise regression analysis support the results of the correlation analysis. The highlighted values in Table 8 below indicate that those variables were included in the regression model if their effect was significant at the level of 0.05. The coefficient of determination (R^2) is higher when the dependent variable is either the density of SEs or their significance as employers. Thus the SEs' economic significance (share of the GDP) is more difficult to model. The regression model explains roughly half of the deviation of the SE activity.

Table 8. Regression Analysis Results, Russia

	Dependent								
	SEs per 1000 people			SEs share in employment			SEs' share of the GDP		
Independent	β	t	Sig	β	t	Sig	β	t	Sig
R&D expenditure / GDP	0.308	4.009	**0.000**	0.384	5.131	**0.000**	0.438	4.601	**0.000**
Academic students / population	0.388	4.864	**0.000**	0.448	6.120	**0.000**	0.017	0.163	0.871
Cumulative FDI 1997 / capita (USD)	0.249	3.557	**0.001**	0.208	3.088	**0.003**	0.078	0.893	0.374
Share of urban population	0.221	2.656	**0.010**	0.051	0.576	0.566	0.295	2.951	**0.004**
Unemployment rate	-0.081	-1.063	0.291	-0.162	-2.309	**0.023**	-0.045	-0.470	0.639
GDP / capita	0.080	1.046	0.299	0.074	1.041	0.301	-0.233	-2.575	**0.012**
Model									
R^2	0.625			0.632			0.410		
F	34.105			35.215			19.262		
Sig	0.000			0.000			0.000		

The dependency between R&D expenditures and SE activities is strongly evident in the regression analysis. The R&D-indicator is included in all models calculated. The cumulative FDI per capita is also included in several regression models. And as stated before, the link between FDI and SEs is not direct. It seems that the large FDI inflows epitomise the good economic situation and growth, which also boost small business activities.

The results of the test of the hypotheses are presented in the following.

Hypothesis 1: High regional GDP per capita has a positive effect on the small business development
GDP per capita does not correlate with the significance and density of SEs. The regression analysis supports the rejection of the hypothesis.

Hypothesis 2: High average monthly income per capita on the region has a positive effect on the small business development
Statistical findings concerning the relationship between living standard and small business activities are somewhat inconsistent. A positive correlation between them exists only when Moscow and St. Petersburg are included. The results of the regression analysis concerning the relationship between the general living standard and SE activity are rather vague and do not offer additional support for hypothesis.

Hypothesis 3: Low level of regional unemployment has a positive effect on small business development
Statistically significant negative correlation can be found between the significance of SEs and the unemployment rate, which implicates that unemployment, is lower in regions where small business thrives. The hypothesis was proved. Even though the unemployment rate was not included in any of the regression models, its level of significance was quite low in all of the models. This means that it also influences the SE activity to some extent.

Hypothesis 4: The high level of FDI per capita on the region has a positive effect on small business development
Small business sector seems to be rather separated from the international activities. Even though there is statistically significant dependency between cumulative FDI inflow and density and significance of SEs, after some additional statistical tests it seems that this dependency cannot be considered a consequence of direct international linkages of the SEs. However, hypothesis is proved, since the correlation between cumulative FDI inflow and density and significance of SEs is statistically significant. The regression analysis also supports this conclusion, since the cumulative FDI inflow is included in several regression models.

Hypothesis 5: The openness of the economy has a positive effect on small business development
No statistically significant dependencies were found between the openness of the economy and the small business activity. The Hypothesis was not proved.

Hypothesis 6: Governmental R&D spending promotes small business development
Results supported hypothesis. A rather high correlation (0.617) prevails between the research and development activities and the share of SEs in the employment of the population. High correlation values can also be found between R&D expenditure and number of SEs per 1000 people as well as between R&D expenditure and SEs' share of the GDP. Dependency between R&D expenditure and SE activities can also be seen in the results of the regression analysis.

Hypothesis 7: High regional urbanization level has positive effect on small business development.

High positive correlation prevails between the indicators describing the SEs' role and the share of urban population, which means that the number of SEs increases when the share of urban population increases.

Hypothesis 8: The high share of academic students in the population of region has a positive effect on small business development
Results supported the hypothesis. The highest correlation (0.632) can be found between SEs' share of the employed population and the share of academic students of the total population. Share of academic students also correlates strongly with the two other indicators measuring the significance of SEs. These findings imply, that the better educated population the larger the socio-economic role of SEs. The regression analysis also supports hypothesis since the share of academic students is included in three of the six regression models.

In the Table 9 below are summarised results of analysis, which supported five out of eight hypotheses

Table 9. Results of the Research

	Russia
H1	-
H2	-
H3	+
H4	+
H5	-
H6	+
H7	+
H8	+

6. CONCLUSIONS

Authors aimed to analyse factors affecting the development of small business in Russia. In study was analysed the effect of economic and social indicators on small business development. Results show that economic and social indicators have significant effect on small business development in Russia; governmental R&D, urbanization level and share of academic students of population having the most significant effect. The effect of capital cities on results proved to be very significant. On the other hand, the effect of economic prosperity was less significant than expected. In Russia there are several large cities, and thus many of the urbanisation-related dependencies remain statistically significant even after Moscow's and St. Petersburg's exclusion from the data set.

Dependency between level of education and SE activities was strong, but the R&D expenditure seemed to correlate rather strongly with the small business activity. The general living standard, however, did not have a consistent causal relationship with the small business activities.

Results also showed that the links between SE development and external influences are relatively weak. For example the FDI effects gravitate towards medium sized and large companies since there was not detected dependency between FDI inflows and development of small business activities.

Finally, authors would like to emphasise the surprisingly strong effect of governmental R&D and academic population to the small business development. Traditionally Russia has had a strong tradition in governmental R&D and well-recognised higher level education, and study shows that these traditional strengths should be developed further.

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ORGANISATIONAL STRUCTURE AND OTHER FIRM-SPECIFIC FACTORS OF MARKUP
THE CASE OF SLOVENIAN MANUFACTURING FIRMS

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Key words: *Firm-specific factors, industry, manufacturing firm, markup, sample, Slovenia*

Abstract

Investigations of firms' pricing decisions and performances have been twofold. While within the industrial organisation framework stress is placed on industry-specific factors and the market power of firms within industries, various organisational theories emphasise the role of 'soft' factors in the determination of firms' performance. The main thesis of our paper is that the size of a firm's markup can mostly be explained by the firm's productivity, capital and labour costs, as well as the firm's market power and organisational structure characteristics, when the external environment and industry membership is controlled for. Our objective is thus to explain firm-level markups by a set of firm-specific factors. The empirical analysis of markup determinants is based on a sample of Slovenian manufacturing firms (NACE 15-37) in the 1994-2003 period, applying panel data regression model and ANOVA analyses. We find that, besides market share and cost factors, organisational structure change occurring after some threshold significantly increases markups.

1. INTRODUCTION

Investigations of firms' pricing decisions and performances have been twofold. Although most authors agree that a firm's performance, reflected through the markups/margins it has achieved, results from firm-specific, industry-specific and environmental-specific factors, the main point of their disagreement involves the importance of each of these three sets of determinants. While within the industrial organisation framework the stress is placed on industry-specific factors and the market power of firms within industries, various organisational theories emphasise the role of 'soft' factors in the determination of firms' performances. The aim of our paper is to recognise the set of firm-specific factors, influencing

a firm's performance, measured with markup size. The biggest contribution of our approach is, however, to jointly examine market factors, cost factors and 'soft' firm-specific factors.

2. THEORETICAL AND EMPIRICAL LITERATURE OVERVIEW

The theory on the determinants of firm performance has evolved from two streams which originate from quite diverse research fields; industrial organisation and organisational theory. While economists within industrial organisation primarily emphasise the industry membership of a firm as a key determinant of the firm's performance, organisational theorists stress business strategy and organisational structure as the main drivers of a firm's success. Over time both of these streams have moved close to each other since both economists and organisational theorists have acknowledged the importance of both industry- and firm-specific factors due to their mutual interdependence.

Most industrial organisation research on firms' performance and markups derives from three different traditions. In the classical tradition, following the structure-conduct-performance (SCP) paradigm and Bain (1951, 1956) industrial economists treated the industry or market as the unit of study. Differences among firms were assumed transitory or unimportant unless they were based on scale economies, which were generally found to be insubstantial. Industry's profitability was generally assumed to be primarily determined by the ability of established firms to restrict rivalry among themselves and the protection afforded them by barriers to entry. A central proposition in virtually all the classical work was that an increase in seller concentration tends to raise industry-wide markups and profitability by facilitating collusion. Most classical studies thus included concentration among the independent variables in regression analyses of industry average rates of return and most published studies reported the coefficient on concentration as being positive and significant (Scherer and Ross, 1990).

An anticlassical, revisionist view of industrial economics emerged in the 1970s and was initially explicitly articulated by Harold Demsetz (1973), while the related formal models were first developed by Jovanovic (1982). In the simplest model consistent with this view, all markets are, at least approximately, competitive and scale economies are absent or negligible. The key assumption is that within at least some industries there are persistent differences in efficiencies among sellers. Because more efficient enterprises tend both to grow at the expense of their rivals and to have higher markups due to lower costs, these differences tend to induce a positive intra-industry correlation between market share and markups even in the absence of scale economies. Moreover, the more important are efficiency differences in any industry, the less equal are the market shares, the higher is the market concentration and the higher are the markups and profits of leading firms and consequently the higher is the industry average markup. This model thus predicts a positive correlation between concentration and markup at the industry level even though, by assumption, concentration does not facilitate the exercise of market power. At the firm or business unit level, the revisionist view implies that market share should appear as the primary determinant of profitability while market concentration should have no impact.

A third tradition, which is often called the managerial tradition (Schmalensee, 1985) has yet another set of implications for firm profitability and markup level. Business schools and management consultants exist because it is widely believed that some firms are better managed than others and that one can learn important management skills that are not industry-

specific. In one of the first econometric studies within the managerial tradition, Mueller (1977) reported on the existence of a substantial, long-lived difference in firm profitability and found that industry effects, when compared to firm effects, are relatively unimportant in general.

Industrial economists following Mason and Bain have run innumerable tests of the relationship between various market structural variables and various dimensions of performance. The most popular activity has been to relate profit rates, variously defined, to measures of concentration and barriers to entry. In 1976 Cowling and Waterson developed a version of a well-known homogenous product oligopoly model, which became a base for a great deal of latter empirical work on the determinants of market performance. Improvements to the Cowling-Waterson model followed by recognising the simultaneous determination of the variables from the Structure, Conduct and Performance elements of the SCP paradigm (Clarke and Davies, 1982) and by introducing models based on panel data (Domowitz, Hubbard and Petersen, 1986). Since the 1990s estimations of the markup equations have mainly been based on firm-level panel datasets (e.g. Machin and Van Reenen, 1993; Lima and Resende, 2004). Methodologically, the markup models retained the characteristics of the industry-level studies. Nevertheless, the use of firm-level data allowed researchers to take firm-diversity within industries into account and to incorporate the firm-specific variables introduced by the revisionist and managerial traditions into the profitability models. Firm-level panel data have therefore given researchers the opportunity to study a firm's performance instead of market performance. Since then, although firm-heterogeneity within industries has been acknowledged within the industrial organisation theory the issue has been dealt with by adopting special econometric techniques to eliminate so-called 'individual effects' and/or by specifying dynamic panel models through the inclusion of the lagged dependent variable to account for all 'immeasurable' or 'soft' strategic characteristics of firms. Competitive and technological factors and their influence on a firm's performance have therefore remained the true subject of interest when firms' heterogeneity is accounted for.

On the other hand, a focus on intra-industry performance differentials has emerged in studies by Caves and Porter (1977) and Porter (1979), following ideas regarding the importance of strategic groups. Strategic groups are believed to follow similar strategies and, due to their structural similarity, to respond in the same way to disturbances within their industry. In contrast to the traditional industrial organisation assumption of homogeneity in firm performance, the concept of strategic groups predicts that performance differences would exist between strategic groups due to mobility barriers. This thesis was investigated and confirmed by a variety of empirical studies (see the overview in Lewin et al, 2004 and Barney and Hesterly, 2006).

Both the revisionist and managerial traditions within industrial organisation acknowledge the importance of differences among firms within industries, which form a firm-specific competitive (dis)advantage. The latter is also the main research subject of various organisational theories.

Penrose (1959) was one of the first to frame the idea of the heterogeneity of firms, based on the resource-based view on firms. According to the resource-based view a firm is described as a bundle of resources. Among these resources, those that are valuable, rare, imperfectly imitable and strategically unique, with no substitutes, are believed to provide a sustainable competitive advantage (Barney, 1991). In this view, resources are considered valuable if they enable a firm to increase its efficiency and effectiveness, and rare if they allow a firm to

implement a strategy that cannot be simultaneously implemented by other firms. Further, rare and valuable resources are a source of sustained competitive advantage only if they are simultaneously inimitable by competitors and immobile, thereby making it impossible for other firms to obtain them (Peteraf, 1993). Resources are generally considered to be inimitable if (a) they are embedded in firm history, (b) their relationship to performance outcomes is causally ambiguous (Lippman and Rumelt, 1982), or (c) they are socially complex (Dierickx and Cool, 1989). Accordingly, inimitability is closely related to 'soft' organisational factors such as organisational structure and culture (Barney and Hesterly, 2006). Limits on resource mobility may similarly arise from a number of factors. The main objective of empirical research within the resource-based view is therefore to identify the set of factors that builds a firm's sustainable competitive advantage. Among these factors studies emphasise the timing of an entry to new markets and a first-mover advantage (Mahoney and Pandian, 1992; Lieberman and Montgomery, 1998), diversification (Barney, 1991; Chang, 1996), mergers and acquisitions (Sharma and Kesner, 1996; Robins and Wiersema, 1995) and the social complexity of firm-specific resources and competencies (Dierickx and Cool, 1989). The latter study is closely related to contingency theory, which is purely empirical and addresses the relationship between a firm's organisation, local and macro environment and a firm's performance. The central assumption of contingency theory is that organisations are able to adapt to the environment through organisational change, which includes organisational strategies and structures. More than one equally suitable organisational solution exists for a specific environmental state (equifinality of organisational solutions) (Drazin, Van de Ven, 1985; Gresov, 1989). Typical contingency research has been differentiated in terms of the types of contingency factors being investigated, such as strategy (Chandler, 1962), technology (Woodward, 1965) or environmental change (Burns and Stalker, 1969).

While the main disadvantage of the traditional industrial organisation theory and empirical studies is the insufficient consideration of firm diversity and/or the lack of its detailed study, the focus of organisational theories and empirical investigations is above all on explaining firms' diversity. Our main thesis, which we seek to advocate in this paper, is therefore, that only when the field of industrial organisation and the framework of organisational theories are brought together can the performance of firms be sufficiently explained by accounting for the industry membership of the firm and firm-specific factors.

3. DATA

The empirical analysis of markup determinants is based on a sample of Slovenian manufacturing firms (NACE 15-37) in the 1994-2003 period. The dataset used is based upon two data sources. One is the database of companies' financial statements collected by the Agency of the Republic of Slovenia for Public Legal Records and Related Services (APLR), supplemented by data on firms' legal and organisational forms, the formation and termination of operations from the Business Register of Slovenia. The other is a questionnaire about organisational and network structure changes sent to the management of all Slovenian companies with more than 50 employees. In the questionnaire 17 different organisational structures and six different network structure adaptations were studied. All nominal data are in Slovenian tolars and the original data were deflated using appropriate deflators. Data related to sales, costs and assets were deflated with the producer price index (on a 2-digit NACE classification level), while the remaining nominal data were deflated with the

consumer price index. The industry membership of firms is defined on the 5-digit NACE classification of activities.

4. MODEL AND METHODOLOGY

We follow the model first introduced by Schmalensee (1985) and followed by Rumelt (1991) as:

$$y_{ijt} = \alpha + \gamma_j + \delta_t + \eta_{jt} + \beta \mathbf{X}_{ijt} + u_{ijt} \tag{1}$$

where a firm's performance y_{ijt} is modelled as a function of the firm's i contemporaneous characteristics X'_{ijt} with unknown weights β, α is a constant, γ_j are industry effects, δ_t are time-specific effects, η_{jt} are industry-year interaction effects and u_{ijt} is the error.

The main thesis of our paper is that the size of a firm's markup can be explained for the most part by a firm's productivity, capital and labour costs, as well as a firm's market power and organisational characteristics, when the external environment and industry membership is controlled for. Our objective is thus to explain firm-level markups through a set of firm-specific factors. According to our thesis, three sets of firm-level characteristics significantly influence a firm's markup decisions : (a) market power; (b) technological and cost factors; and (c) organisational structure characteristics.

The simple oligopoly model of firm performance implies a positive relationship between market share and markup size. An intuitive interpretation is that a firm with a greater market share is able to charge higher prices (and therefore achieve a superior level of markup) due to its higher markup power and larger opportunities for collusion. However, an opposing hypothesis is that, as market share increases, competitive pressures are weakened, suggesting that profitability (and markups) is lower because the incentive to minimise costs is no longer important. Equally, it is possible that firms with lower market shares are smaller and more flexible, allowing for lower costs and higher profitability. The market power of a firm is thus hypothesised to increase markups due to the bigger opportunities for collusion and/or due to the higher efficiency of firms (Bain, 1956; Demsetz, 1973).

The price set for a particular product by a firm is the sum of the unit production cost and the markup. We thus expect that higher production factor costs leading to higher unit costs do not always result in higher prices. How much the higher costs will be spilled over into higher prices depends on the strength of the competition within a particular industry. When the competition among firms within the same industry is strong enough, it is able to prevent the complete transformation of the higher unit cost into higher final product prices . In such cases, higher production costs lead to lower markups. At the same time, we expect more productive firms to charge higher markups due to lower unit costs at given prices of inputs.

When studying complex multiple interactions between (organisational and environmental) changes, performance benefits of any change are dependent upon the nature of other potentially complementary changes (Whittington et al., 1999). The complementarities notion, based on complexity theory, warns strongly of a possible J-curve relationship between change and performance, with partial implementation potentially worse than the starting point (Pettigrew, 1995). In other words, organisational change has to be congruent and extensive enough to influence the performance in a positive manner. We thus expect that after some threshold level an organisational change improves a firm's performance.

5. VARIABLE DEFINITIONS AND MEASUREMENT CONSTRUCT

A firm's performance is measured by markup as defined in works by Kalecki (1954). By using sales, inventories and costs, Kalecki's version of the markup definition as the ratio between price and the unit direct cost of production can be constructed. When multiplied by quantity produced, markup is thus defined as the ratio between a firm's revenues and direct cost:

$$markup_{ijt} = \frac{Value\ of\ sales_{ijt} + \Delta\ Inventories_{ijt}}{Payroll_{ijt} + Cost\ of\ Material_{ijt}} \qquad (2)$$

Market share (ms_{ijt}) is defined as the share of a firm's domestic market sales in the 5-digit NACE industry annual sales (home sales of domestic firms in an industry plus imports in industry j).

$$MS_{ijt} = \frac{Domestic\ Sales_{ijt}}{Domestic\ Sales\ of\ domesti\ firms_{jt} + Imports_{jt}} \qquad (3)$$

To allow for the possibility of a U-shaped relationship between markup and market share, our empirical specification will include both market share and the square of market share as explanatory variables. Labour productivity ($lprod_{ijt}$) is defined as value added per employee. The price of labour (w_{ijt}) is calculated by dividing annual gross wages by the average number of employees for each firm. The price of capital (r_{ijt}) is calculated as the difference between total cost and the cost of labour relative to the sum of fixed assets and inventory. Export orientation ($exor_{ijt}$) is presented by the share of a firm's revenues from exports in the total annual sales of the firm. Empirical studies that use the markup (or PCM) as the dependent variable commonly include capital intensity (ki_{ijt}) as an explanatory variable (Domowitz, Hubbard and Petersen. 1986; Feeny, Harris and Rogers, 2005) for two reasons: first, because the markup is usually calculated without taking into account the cost of capital in production, and the capital intensity measure is included to capture this effect and, second, to control for differences in the capital intensity of production among firms. Capital intensity is measured as the ratio of a firm's total fixed assets to the number of the firm's employees.

Organisational structure adaptations (org_{ij}) include all contemporary organisational structure changes that lead to the firm's more responsive and adaptive performance. More specifically, they encompass flattening and downsizing; re-engineering the business processes; subcontracting and outsourcing of non-core activities; creating multifunctional project teams; empowering employees; increasing workforce flexibility (multi-skilled workers); expanding the externalised workforce (temporary workers); replacing highly specialised machinery for flexible manufacturing systems; developing multipurpose information systems etc. (Volberda, 1998). They are presented in Table 1. These adaptations can be implemented in one or more business fields/functions: sales, production, purchasing, finance, staffing, and support function (information-processing, planning and control etc). The extent of adaptation was assessed according to how many fields a specific type of organisational adaptations was implemented. In the event a specific organisational structure change was not implemented, it was assessed with 1. If it was implemented in only one field (i.e. production) it was assessed with 2. If it was implemented in all crucial business fields/functions it was assessed with 7. The average extent of all seventeen organisational structure adaptations gave the extent of organisational structure adaptations (org_{ij}). The presented organisational structure measurement constructs builds on the logic of a seven-point Likert scale.

Table 1: Organisational structure adaptations indicator

Indicators	Product	Sales	Purchasing	Finance	Staff	Stabs
Work process automation						
Updating information technology						
Decision-making decentralisation						
Professionalisation of employees						
Downsizing						
Delayering (SP6)						
Job enlargement and rotation						
Team work						
Cooperation between different business functions and professional fields within firm						
Products/services customisation						
Outsourcing						
Binding rewards on individual/collective outcomes						
Decentralisation of planning activities						
Adaptation of work descriptions						
Reorganisations of departments						
Project work						
Business process reengineering						

Note: for the validity and reliability of measurement construct, see Rant, 2006.

To control for the industry-effects, time-specific effects and industry-time interaction effects, throughout our sample period we include year dummies (*year*), industry dummies at the 2-digit NACE level (*industry*) and a set of dummy variables on interactions between industries and time (*industry*year*).

As a result we estimate the model with the following specification:

$$markup_{ijt} =$$

$$\alpha + \beta_1 + \beta_2 MS_{ijt} + \beta_3 MSsq_{ijt} + \beta_4 exor_{ijt} + \beta_5 size_{ijt} + \beta_6 lprod_{ijt} + \beta_7 w_{ijt} + \beta_8 r_{ijt} + \beta_9 ki_{ijt} + \beta_{10} org_{ijt} + \quad (4)$$

$$+ \beta_{11} industry + \beta_{12} year + \beta_{13} industry * year + u_{ijt}$$

where subscript *i* refers to a firm, *j* to industries according to the 5-digit NACE classification of industries and *t* to a particular year, respectively. The set of industry dummy variables is defined, however, on the 2-digit level of NACE classification due to the small sample size.

6. RESULTS

In order to gain insights into the explanatory power of particular regressors, we first test the simple ANOVA models. These models do not account for the panel nature of the dataset but, on the other hand, they give useful information about the simple relations between the variables in the model specification.

Table 2: ANOVA models

	Period	Source	SS	df	MS	F	Prob>F	R² adj
1	1994-2003	Between industries	1.06338756	17	0.062552209	6.90	0.000	0.1026
		Within industries	7.79662626	860	0.009065844			
		Total	8.86001381	877	0.010102638			
2	1994-2003	Between years	0.10488593	9	0.011653992	1.16	0.321	0.0016
		Within years	8.75512788	868	0.010086553			
		Total	8.86001381	877	0.010102638			
3	1994-2003	Between org	3.25126357	62	0.052439735	7.62	0.000	0.3188
		Within org	5.60875024	815	0.006881902			
		Total	8.86001381	877	0.010102638			
4	1994-2003	Model	1.1836167	26	0.045523719	5.05	0.000	0.1071
		Between industries	1.07873077	17	0.063454751	7.03	0.000	
		Between years	0.120229144	9	0.013358794	1.48	0.150	
		Within industries and years	7.67639711	851	0.009020443			
		Total	8.86001381	877	0.010102638			
5	1994-2003	Model	3.87672631	79	0.049072485	7.86	0.000	0.3819
		Between industries	0.625462742	17	0.036791926	5.89	0.000	
		Between org	2.81333876	62	0.045376432	7.27	0.000	
		Within industries and org	4.9832875	798	0.006244721			
		Total	8.86001381	877	0.010102638			
6	1994-2003	Model	4.00817967	88	0.045547496	7.41	0.000	0.3913
		Between industries	0.659327694	17	0.038783982	6.31	0.000	
		Between years	0.131453357	9	0.014605929	2.38	0.012	
		Between org	2.82456297	62	0.045557467	7.41	0.000	
		Within industries, years and org	4.85183414	789	0.006149346			
		Total	8.86001381	877	0.010102638			

Source: APLR and own calculations

ANOVA models show the importance of the industry membership of a firm and the development of its organisational structure for markup size. ANOVA Model 1 indicates that average industry markups statistically significantly differ between industries. Industry membership explains approximately 10 percent of the markup variability. A similar conclusion holds for groups of firms that introduce the same type of organisational structure change (ANOVA Model 3). Organisational structure indirectly incorporates most of the firm-specific factors including the technology used by the firm, the firm's strategy, knowledge of the employees, management style and the firm's size. Therefore, organisational structure is a reasonably good indicator of individual specific effects of a firm which explains 32 percent of the markup variability. Although Model 2 indicates that year does not influence markup levels significantly, Model 6 shows that all three variables, i.e. industry membership, year and organisational structure change, also indicating individual specific effects, statistically significantly explain differences in markup levels of particular firms in the sample and account for 38 percent of the variability of markups.

Although ANOVA is a very simple tool it clearly shows how decisions on markups are made at the firm level. The largest share of variance is explained by the firm characteristics (org). After firm-specific characteristics are accounted for, the firm relates its markup decisions to the industrial environment and, finally, takes into account the general economic environment (year). But the latter is not significant when firm and industry specificity is not taken into account.

In order to establish the relative importance of the industry, year and firm-specific factors in markup determination, we use standard panel data estimation techniques to estimate the specified model (eq. 4). The results are presented in Table 3.

Table 3: Random effects GLS regression results

Dependent variable: markup	Coefficient	sig.
ms	0.2068198	0.068
mssq	-0.3402827	0.079
exor	0.0136694	0.644
size_2	0.0241015	0.318
size_3	0.0242877	0.383
lprod	0.0000924	0.000
w	-0.0001681	0.000
r	-0.0507442	0.010
ki	-0.0000068	0.032
org	0.0234988	0.017
year	incl	
industry	incl	
year*industry	incl	
constant	1.09712	0.000
number of observations	316	
number of groups	103	
Rsq	0.6796	
(df) Wald $\chi 2$	(95) 110538.8	0.000
(df) B-P LM test $\chi 2$	(1) 12.42	0.000
(df) Hausman $\chi 2$	(18) 23.59	0.1688

Source: APLR and own calculations

The Breusch-Pagan test indicates that the panel data estimation techniques are superior to an ordinary regression model and the Hausman test shows that the random effect model is appropriate[1]. Hausman's test therefore indicates that unexplained individual specific effects are not important after a firm's power, productivity, cost factors and organisational structure adaptation have been accounted for. As mentioned before, the finding that organisational structure change is an appropriate indicator of firm individual effects is again confirmed in the regression model. Further, measuring the firm individual effect with organisational structure change gives us an additional insight into the behaviour of the firm that enabled it a superior performance.

The model as a whole is statistically significant and explains 67 percent of the variability in markups. Although the majority of industrial organisation studies on firm performance emphasise that the estimation of a single equation of performance would suffer from endogeneity bias (Hay and Morris, 1991; Martin, 1993), the Davidson-MacKinnon test of endogeneity does not confirm the presence of endogeneity bias. The estimated value for the F-test is smaller than the theoretical value (F(1.41)=2.15, Prob>F=0.1498). We thus apply a single equation random effect regression model.

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[1] The Wooldridge test for autocorrelation does not indicate that autocorrelation is an important issue in the specified model (F(1,12)=0.097 with H_0=no first-order autocorrelation, Prob>F=0.7607). Similarly, multicollinearity among the regressors is not critical as none of the VIF factors exceeds 6.5. On the other hand, because the modified Wald test indicates that group-wise heteroscedasticity is present in the model, we apply a transformed form of variances.

The model specification covers all three main groups of markup determinants: firm characteristics, market/industry membership and general economic environment. Firm determinants are explicitly included and studied within the model. Industry and macro environment are controlled for by sets of dummies. Static characteristics of a particular industry are captured by a set of industry dummy variables. The impact of aggregate economic dynamics is measured by a set of year dummy variables and the industry dynamics is measured by a set of year-industry interaction dummy variables.

The linear relationship between a firm's market share and the firm's markup is significant[2] and positive, which is predicted by the simple oligopoly models. Because similar studies (Fenny, Harris and Rogers, 2005; Bennenbroek and Harris, 1995) have provided evidence of a U-shaped relationship between market share and profitability, we also tested the non-linear markup-market share relationship. The coefficient on the square market share is significant and negative. It indicates that market share positively affects markup size but in a decreasing fashion.

A firm's export orientation (the share of foreign sales in total firm sales) has an insignificant although positive affect on markups. The insignificance of the coefficient indicates that a uniform direction of the impact of export orientation on markup level does not exist. Similar findings are reported in Stalhammar (1991). The size of the firm, measured by the number of employees, does not influence the markup size significantly. Obviously, market share takes over the explanatory power of a firm's size. Productivity and cost factors affect the markup size significantly. Labour productivity, measured by value added per employee, has a significant positive effect and cost factors a significant negative effect on markup size, which is expected. The coefficient on capital intensity is significant and negative, which is not what would be expected by theory. However, because the set of industry-year dummy variables takes over the average characteristics of the technology applied in an industry in a particular year the variability in the capital intensity of production might indicate a firm's underutilisation of production capacities and therefore tendencies to increase capacity utilisation through pricing and markup decisions.

We also tested the influence of the organisational structure change on markup size and it turned out to be insignificant. The result was somehow expected. As suggested by the J-curve concept, the influence of an organisational structure change on a firm's performance is not linear. Accordingly, significant and positive effects of an organisational structure change are only supposed to appear after a certain threshold level of organisational structure change has been passed. We found the threshold to be at the value of 3.5 on a 7-point Likert scale. For firms characterised by the extent of organisational structure change higher than 3.5, the influence of this variable on markup is positive and significant. This confirms the existence of a J-curve. In addition and more importantly, we can infer about the directions of organisational changes that result in higher markups from the measurement construct (e.g. professionalisation of employees, outsourcing of non-core activities, automation of a direct work process, team work and co-operation between business functions, decentralisation of decision-making and planning, introduction of flexible reward systems etc.).

Organisational structure change affects costs as well as revenues (Burton and Obel, 2004). The model explicitly covers the cost side by including labour and capital cost as well as

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[2] Due to the small sample size we follow the level of 10% statistical significance.

labour productivity. However, even when the cost side of the organisational structure change influences is controlled for, the coefficient of organisational change is still significant and positive. It implicates that organisational structure has a strong influence on a firm's adapting capability, which allows it to better fit in with customers' needs. This results in greater satisfaction of customers and enables firms to charge higher prices and achieve higher markups.

7. CONCLUSION

Our research confirms our main thesis that the size of a firm's markup can mostly be explained by a firm's productivity, capital and labour costs, as well as its market power and organisational characteristics, when the external environment and industry membership are controlled for.

Markup decision-making occurs at the management level. Cost factors on one hand and market price on the other represent an origin of markup determination. On one side, costs are determined by factor costs and productivity. Factor costs decrease and productivity increases the markup levels. The price side of the markup equation is determined by a firm's ability to influence the market price and average industry price. The firm's ability to influence the product's price is determined by the firm's market share and characteristics of an industry. The influence of market share on markups is non-linear. Market share increases a firm's ability to influence prices but in a decreasing fashion.

In additionally, organisational structure change affects both sides of the markup, namely costs and the ability to influence the selling price through product differentiation and innovation. The model applied in this research confirms that, after the cost side has been controlled for, organisational structure change additionally increases markups from the price side of the markup equation. However, this only holds when the organisational structure change is extensive enough and when it goes in a direction that increases the firm's adaptability and flexibility. The model also shows that the organisational structure change is a good indicator of firm individual effects as it indirectly identifies a firm's profile: technology, size, knowledge of employees and management style.

The influence of industry-specific factors and the macro-environment on markup decisions was not explicitly studied in the applied model. Nevertheless, ANOVA analyses show that while industry is a very influential markup determinant the macro-environment only indirectly influences firm-level markup decisions.

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WELFARE EFFECTS OF TAKEOVERS IN THE POLISH BANKING INDUSTRY

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1. INTRODUCTION

It has become a standard in the literature to measure the success of takeovers by the abnormal returns to the shareholders of the acquiring companies and their targets. Most of empirical studies confirm that the target-companies shareholders receive substantial abnormal returns as a result of takeover bids. In general literature on acquisitions, Dennis and McConnel (1985) found that the share prices corrected for stock index have increased by 8.7 per cent on average in a two-day window around the tender offer; it is a substantial increase. This increase was independent of the final success or failure of the bid. The mere existence of a takeover attempt created gains for the target-firms shareholders in the form of higher stock prices.

The analysis of the acquisitions of Polish companies conducted by Lewandowski (2001) shows that the average abnormal returns for the target-firms shareholders in 1998-2000 was about 2.6 per cent in a ten-day window around the tender offer, and about 1.5% over the sixty day period around the bid announcement day.

The purpose of this paper is to provide a new insight into the analysis of gains from takeovers in the Polish banking industry. The banking industry plays an important role in most countries. Also in Poland it is a major part of the economy. On the Warsaw Stock Exchange the banking sector constitutes about 50 per cent of the entire market capitalization. The M&A activities among the banking institutions listed on the Warsaw Stock Exchange have belonged to the most spectacular transactions in the last decade.

Following the traditional approach, we first analyze the gains from takeovers for the owners of the target banks in Poland. We show that the target-bank's shareholders received significant gains from acquisitions in Poland. This result is consistent with the estimates of the target-shareholder returns from acquisitions of companies in general (not only banks), but there are significant differences in the size of returns.

However, we point out that the assessment of gains and losses from the takeovers in the banking industry should not be limited only to the analysis of returns to the bank shareholders. It is necessary to analyse the consequences of M&A activities for other

stakeholders.[1] It turns out that the target-shareholder gains were primarily a result of wealth redistribution rather than value creation. We show that the M&A of banks in Poland contributed to substantial losses in the wealth of many stakeholders, including managers, employees, individual clients, small- and medium-size enterprises, and taxpayers. The large participation of foreign banks in the wave of M&A in Poland creates potentially negative consequences for the nation as a whole. Foreign-dominated banking industry often finds it more beneficial to discriminate against Polish-owned firms seeking financing of business activities. Through a multiplier effect the overall losses in the economy may be much higher than any efficiency gains.

The rest of this paper is organized as follows. In section 2. we present the sample and methodology. The shareholder wealth effects of takeovers are given in section 3. Section 4. contains a discussion of welfare effects of M&A activities for other stakeholders. Summary and conclusions are presented in section 5.

2. DATA AND METHODOLOGY

2.1. Sample

Mergers and acquisitions of banks in Poland began in the mid 1990-ties and are still continued.[2] Initially, the transactions were closely related to the privatisation process that has been taking place in almost every part of the economy in transition. The Ministry of Treasury, representing the state owned banks under privatisation, was then the most significant player on the market for corporate control. Among the private participants of the acquisitions, foreign financial institutions constituted a substantial share of the market. Foreign banks attempting to expend business in Poland were forced to take over some of the privatised domestic banks. The interest of foreigners in the Polish banking industry was justified by a large size of potential financial market and was closely related to the geographical expansion of the European Union.

In addition to governmentally controlled mergers and acquisition, relatively quickly the market transactions started playing a more significant role in the consolidation process of the Polish banking sector. Among the biggest market deals we could name a takeover of Bank Gdański by Bank Inicjatyw Gospodarczych (BIG), an acquisition of Polski Bank Inwestycyjny by Kredyt Bank and a purchase of Polski Bank Rozwoju (PBR) by Bank Rozwoju Eksportu (BRE).

In the first two of the above transactions, an interesting fact was that the acquirer was substantially (several times) smaller than the takeover target. The third of them was a result of a direct competition from two foreign bidders: Skandinaviska Enskilda Banken (SEB) and Bayerische Landesbank Girozentrale. In particular, the offer made by BRE has been increased as a response to a competitive bid from SEB. As a result of this acquisition PBR was fully integrated with BRE and its name completely disappeared from the market. The takeover of PBR by BRE could even be described as „a friendly one", because the president of the acquiring bank was a founder of the target.

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[1] See, for example, Prokop (2001).
[2] See, for example, Maszczyk (2002).

Among other interesting takeovers that took place in the Polish banking industry, we could name an acquisition of Bank Przemysłowo-Handlowy (BPH) by Bayerische Hypo- und Vereinsbank (HVB) in 1998, and a purchase of Powszechny Bank Kredytowy (PBK) by Bank Austria Creditanstalt in 2000. A merger between HVB and Bank Austria had an importanet consequences for BPH and PBK. A decision was made to merge these two banks. Encouraged by the National Bank of Poland (NBP), many foreign banks decided to consolidate the banks in their possession. Another example here is Allied Irish Bank – the majority owner of Wielkopolski Bank Kredytowy (WBK) and Bank Zachodni (BZ) – decided about the merger of these two banks into one called WBK-BZ.

However not all such attempts have been successfully completed. Recently, a merger between Bank Pekao S.A. and BPH as a result of the merger of their majority owners, i.e. UniCredito and HVB, drew plenty of attention. The merger violated an initial privatisation agreement between UniCredito and the Polish government, so its full implementation was put to on hold. The renegotiated settlement called for Bank Pekao to keep about 60 per cent of the BPH branches, and spin off the rest together with the old trade name.

The banking industry has also been a scene of sharp competition between foreign financial institutions planning to enter Polish market. The most visible battle took place in 1999. In a fight for corporate control over BIG Bank Gdański, Deutsche Bank lost to Banco Commercial Portugues. This case has also shown a substantial engagement of politicians in the process of M&A in Poland.

In our analysis, we consider market-based acquisitions of banks that took place through an open takeover bid during the period December 1996 to May 2002. Our sample contains 12 target banks listed on Warsaw Stock Exchange. The complete list of buyers and targets is presented in Table 1.

There were several other acquisitions of banks listed in Warsaw in addition to the takeovers shown in Table 1. However, these transactions took place without an open takeover bid. Such a situation was possible due to the fulfilment of certain legal requirements.[3]

Table 1. Takeover bids in the Polish banking sector 1996-2002.

Bidder	Target bank	First bid date	Price offer (PLN)	Market price on the bid's date
LG Investment Holding BV	Petrobank	Dec 18, 1996	12.00	11.60
Allied Irish Bank	Wielkopolski Bank Kredytowy	Apr 30, 1997	14.00	18.20
Bank Rozwoju Eksportu	Polski Bank Rozwoju	Apr 2, 1998	22.50	19.90
DG Bank	Amerbank	Oct 15, 1998	34.60	33.10
Bayerische Hypo- und Vereinsbank	Bank Przemysłowo-Handlowy	Jun 29, 1999	230.00	205.00
Fortis Bank	Pierwszy Polsko-Amerykański Bank	Oct 7, 1999	40.10	38.80
Nordbanken	Bank Komunalny	Nov 17, 1999	16.50	12.00
Deutsche Bank	Bank Współpracy Regionalnej	Apr 26, 2000	2.85	2.65
Citibank	Bank Handlowy	May 15, 2000	70.00	64.00
ING	Bank Śląski	Mar 8, 2001	265.00	228.00
KBC	Kredyt Bank	Dec 19, 2001	18.00	18.20
Bank Rozwoju Eksportu	Bank Częstochowa	May 10, 2002	5.50	4.47

Source: Warsaw Stock Exchange.

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[3] For example, in 1999 Allied Irish Bank acquired 80 per cent of shares of Bank Zachodni directly from the Polish Treasury in a privatization process. In another case, in 2001 Powszechny Bank Kredytowy and Bank Przemysłowo-Handlowy agreed on a merger through an exchange of shares.

Our calculations are based on the share price quotations made available by the Warsaw Stock Exchange.

2.2. Measuring abnormal returns

The effects of takeover bids on share prices are measured by the cumulative abnormal returns (*CARs*) to shareholders of acquired banks. We use an event-study methodology[4] that allows to measure the effects of takeover announcement on the target-bank's stock prices. Any finding of abnormal returns shows how the stock market views the impact of the event on the bank's common stockholders.

The first step is to define the event period. Usually this is centred on the announcement date, which is designated day $t=0$ in event time. The purpose of the event period is to capture all the effects on stock price of the event.

The next step is to calculate a predicted (or normal) return $\hat{R}_{jt}$, for each day in the event period for each bank. The predicted return represents the shareholder return that would be expected in the absence of a takeover. To calculate this predicted return we use the market model method. The procedure involves a regression of the bank return series against the market index; in our case Warsaw Market Index (WIG) or Warsaw Banking Index (Banking WIG). The calculations must be based on a period not included in the event window, so called clean period. Similarly to other research in this area, the clean time used in our analysis is a period of 150 days from day $t=-210$ to $t=-61$.

The market model is

$$R_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_{jt}$$

where R_m is the return on a market index for day t, β_j measures the sensitivity of bank j to the market. The regression produces estimates of α_j and β_j, call these $\hat{\alpha}_j$ and $\hat{\beta}_j$. The predicted return for a bank for a day in the event period is the return given by the market model on that day using the estimates. That is:

$$\hat{R}_{jt} = \hat{\alpha}_j + \hat{\beta}_j R_{mt},$$

where now R_{mt} is the return on the market index for the actual day in the event period.

Next for any bank j we define an abnormal return, AR_{jt}, as a residual

$$AR_{jt} = R_{jt} - \hat{R}_{jt},$$

where R_{jt} is the actual return for day t. The abnormal return is the part of the return that is not predicted and is therefore an estimate of the change in bank value on that day, which is caused by the event. For each day in event time the residuals are averaged across firms to obtain the average residual for that day, AR_t, where

$$AR_t = \frac{\sum\limits_j AR_{jt}}{N}$$

and N is the number of banks in the sample.

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[4] This methodology has been widely used by many researchers analyzing the shareholder wealth effects of corporate takeovers, e.g., Bradley, Desai, and Kim (1988).

The final step is to cumulate the average residual for each day over the entire event period to produce the cumulative average abnormal return, $CAR(t_1, t_2)$, where

$$CAR(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_t ,$$

and t_1 and t_2 are the beginning and the end of the event period, respectively. The cumulative average abnormal return represents the average total effect of the event across all banks over the specified time interval.

3. EMPIRICAL FINDINGS

Table 2 reports target-shareholder wealth effects based on the market index WIG for three different event periods. First event period analysed here starts one day prior to the takeover bid and ends one day after the bid announcement. The second event time consists of five days before the bid announcement and five days after the bid. The third event period covers thirty days prior to the acquisition announcement and thirty days after the takeover bid.

For each of the specified event periods, the average $CARs$ were significantly positive. It means that the target-bank shareholders obtained an extraordinary profit due to a takeover. The average $CARs$ of the target-bank's shareholders in a two-day window around the announcement (one day before the announcement and one day after) were about 6.8 per cent if corrected by WIG. In a ten-day window (five days before the announcement and 5 days after), the average $CARs$ for the target-bank's shareholders were about 10.4 per cent compared to WIG. However, increasing the event period to sixty days around the bid announcement reduces the average $CARs$ for the shareholders of Polish target banks to about 6.0 per cent.

Table 2. Cumulative average abnormal return corrected by the Warsaw Stock Exchange Index (WIG)

Event period (t_1, t_2)	CAR(t_1, t_2)
(-1, +1)	6.8
(-5, +5)	10.4
(-30, +30)	6.0

Source: own calculations.

The gains of the target-bank shareholders varied not only with the time interval considered but, also, with the reference point used for the assessment of the abnormal returns. Table 3 shows the cumulative average abnormal returns corrected by the banking sector index – Banking WIG. In a two-day window around the announcement date, the average $CARs$ for the target-bank's shareholders were about 6.4 per cent if related to Banking WIG. The average $CARs$ in a ten-day window for the target shareholders were about 9.5 per cent if compared to the Banking WIG. For a sixty-day event period (thirty days prior to the bid announcement and thirty days after that), the average $CARs$ declined to about 4.9 per cent.

Table 3. Cumulative average abnormal return corrected by the Warsaw Banking Stock Exchange Index (Banking WIG)

Event period (t_1, t_2)	CAR(t_1, t_2)
(-1, +1)	6.4
(-5, +5)	9.5
(-30, +30)	4.9

Source: own calculations.

The comparison of the abnormal returns corrected by WIG (given in Table 2) and those corrected by Banking WIG (given in Table 3) shows that the former are somewhat greater than the latter. The differences in the returns could have resulted from the fact that the overall wealth of the shareholders on the Warsaw Stock Exchange were on average smaller than the gains of the bank shareholders. The abnormal gains of the target-bank shareholders corrected by the Banking WIG could be viewed as a better approximation of the consequences of takeover bid announcement for the wealth of the target-bank shareholders.

4. WELFARE CONSEQUENCES FOR OTHER STAKEHOLDERS

Hostile takeovers, mergers or LBOs/MBOs are viewed as wealth increasing, because the total market value of the target firms and the raiders is usually going up. On the one hand, many economists, e.g. Jensen (1984), argue that large returns received by the shareholders result from an improved management and an increased efficiency due to restructuring. These economists argue for a positive role of mergers and acquisitions from the social viewpoint.

On the other hand, many representatives of business world and academics, e.g. Drucker (1986), Lowenstein (1985), or Law (1986), are of completely opposite opinion. They question any social gains resulting from takeovers by arguing that anyone's profit results from a pure redistribution at the expense of someone else. They argue that the shareholders' gains result from an inappropriate valuation of companies by the financial markets, a use of tax breaks, an interception of the part of employees' paychecks and profits of the suppliers or other stakeholders. Moreover, the critics say that the battles over the control of companies constitute a loss of productive energy that could be used much more efficiently in other applications. For these reasons, at least in the case of some takeovers, the costs substantially exceed any social gains.

Shleifer and Summers (1988) make an attempt to prove that takeovers facilitate opportunistic behaviour of shareholders at the expense of other stakeholders. Especially hostile takeovers allow the shareholders to capture the wealth of other stakeholders (redistribution), and create much less of any new wealth. The existing evidence shows that the size of the redistribution may be quite large, even resulting in net losses. Thus it would be a mistake to judge the effects of takeovers exclusively on the basis of the shareholders' returns.

There is a substantial evidence that M&A in the Polish banking sector lead to a major redistribution of wealth in the entire economy. Our analysis has shown that the shareholders of target banks received large gains from takeovers. On the one hand, we could look for the source of these gains in an improvement of functional efficiency of banks due to M&A. Such an effect would be positive, because it is commensurate with wealth creation for the entire economy. On the other hand, however, the gains of shareholders and some employees have been obtained at the expense of several groups of stakeholders. Among those who experienced huge losses we could name first of all the employees laid off as a result of takeover, or future restructuring. It means that the consolidation process in the banking sector could have contributed to an increase in unemployment rate, a decline in disposable income, and consumption expenditures.

We have to remember about the multiplier effects that contribute to a substantial weakening of some regions, or even the entire economy. If after a takeover, the new management cuts jobs in a subsidiary that was a sole employment opportunity for people from the nearby towns and villages, it will create negative multiplier effects for the economy of that region. As a result, the social losses might be substantially higher than the shareholders' gains from a takeover.

The reduction of employment in the banking sector over the last few years was substantial. From 1999 to 2002 only, the employment in commercial banks has declined by 14 thousand people, i.e. 10 per cent of bank employees. The job cuts in the Polish banking sector are a result of restructuring mostly as a consequence of mergers and acquisitions that have been taking place over the last few years.

Another example of wealth redistribution is firing of highly paid employees and replacing them with new employees with the same qualifications, but ready to accept a lower salary. In this case a takeover has not generated any wealth for the society, but has caused a simple transfer of wealth from the former employees to the firm shareholders.

A natural consequence of M&A was a substantial concentration in the Polish banking industry. It is reflected not only in the increase of the share of the largest banks in the total industry assets, but also in the increase of their share in the total pool of loans and deposits.

As a result of concentration we have observed closing of many retail outlets. In the period from December 2001 and June 2002 only, the number of retail outlets operated by the commercial banks declined by more than 300, i.e. almost 4 per cent. That caused a large decline in consumer surplus by causing inconvenience and raising transaction costs.

In the last few years, the gap between the loan interest rate and the interest rate paid on deposits has deepened. Even though the costs of bank operations have been reduced, the reductions have not been past to the clients. Actually, the prices of banking services for clients in Poland have increased, and belong to the highest in the OECD countries.

Among other problems caused by M&A in the banking sector are difficulties of Polish companies in the access to adequate financial services, and unfavourable perspectives for the development of domestic business.[5] On the one hand, M&A allow the banks to meet the needs of expanding enterprises by offering loans of higher value and more complex structure to domestic companies. On the other hand, the changes in the ownership structure and an increased share of foreign investors in the Polish banking sector could have a serious negative consequences for the country's economy.

Takeovers of Polish banks lead to a loss of operational independence of domestic banks and to a reduction of their status to local branches of international organizational structures with the headquarters located outside of Poland. Interviews conducted with several board members of target banks indicated that the takeovers result in a more difficult, or often impossible access of small- and medium-size domestic companies to commercial loans. That becomes a significant obstacle to the development of small- and medium-size entrepreneurship, and has far reaching negative consequences for the rate of economic growth today and in the future.

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[5] See, for example, Kosciukiewicz (2006).

Another source of shareholder gains is the redistribution of wealth from the taxpayers. It is worth noting that commercial banks in Poland obtained significant public transfers during the privatisation process. Therefore, the takeovers by foreign investors mean financing the consolidation process of the banking sector by the Polish society.

The large participation of foreign banks in the wave of M&A in the Polish banking industry raises a question about the broader welfare effects for the nation as a whole. In most of the developed European countries, the banking sector is treated as a strategic element of the national economy, and is usually protected from excessive foreign acquisitions. It is pointed out that takeovers of domestic banks by foreign financial institutions leads to a loss of sensitivity to the national needs. Foreign-dominated banking industry find it more beneficial to discriminate against Polish-owned firms seeking bank financing of business activities. That leads to an underdevelopment of the Polish-owned businesses, or even a wave of bankruptcies resulting from a competitive disadvantage due to more expensive or unavailable bank financing. Through a multiplier effect, the overall macroeconomic losses may be much higher than any efficiency gains resulting from bank takeovers and restructuring.

Moreover, foreign banks may contribute to a contraction of the domestic banking sector that will result in lost jobs by bank employees as well as by the local managers. Such a contraction maybe an efficient solution from the point of view of foreign-based stakeholders of the banks, but harmful to the social welfare of the country that is losing jobs.

Since there are potentially harmful effects of the mergers and acquisitions in the Polish banking sector, a major analysis should be conducted to arrive at the final conclusion regarding the net benefits of this process from the social viewpoint.

5. SUMMARY AND CONCLUSIONS

Our study has shown that the target-bank's shareholders received significant gains from takeovers in Poland. This result obtained for the banking industry in Poland is consistent with the estimates of the target-shareholder returns from acquisitions of companies in general (not only banks). Although the gains of the target-bank's stockholders are unquestionable, the exact size of the benefits depends on the specification of the method applied. In particular, the gains vary with the time interval considered and with the reference point used.

The average *CARs* of the target-bank's shareholders in a two-day window around the announcement were about 6.8 per cent if corrected by the Warsaw Stock Exchange Index (WIG), or about 6.4 per cent if corrected by the Warsaw Banking Stock Index (Banking WIG). For comparison, Dennis and McConnel (1985) found that the average *CARs* to the target-company's shareholders in the U.S. in a two-day window around the announcement were about 8.7 per cent if corrected by the market index.

Considering a ten-day window (five days before the announcement and 5 days after), the average *CARs* for the target-bank's shareholders were about 10.4 per cent if corrected by WIG, and 9.5 per cent if corrected by Banking WIG. In the case of the target company's shareholders the average *CARs* in a ten-day window in the U.S. estimated by Bradley, Desai and Kim (1988) were about 28 per cent if corrected by the market index. Similar studies

conducted for all Polish target companies in 1998-2000 lead to an average *CARs* equal to 2.8 per cent if corrected by WIG.

Comparative analysis leads to several conclusions. First, average *CARs* to the target-bank's shareholders are higher than the average *CARs* obtained by the target-company's shareholders in Poland. Second, average *CARs* to the target-bank's shareholders in Poland are smaller than those obtained on average in the U.S. and other countries with better developed capital markets. Third, in the long run the average *CARs* to the target-company's shareholders overall in Poland are almost insignificantly positive, but the returns to the target-bank's shareholders were significantly higher. We observe that the returns in the short run are higher than in the long run in Poland. That is exactly opposite situation as compared to the U.S. and other better developed capital markets

It is possible to name some factors that contributed to the above differences between the effects of takeovers in the Polish banking sector and the effects of corporate takeovers in general. First of all, the competition in the Polish market for corporate control is much weaker than in the more mature capital markets. That also affects the banking sector, and the average *CARs* to the target-bank's shareholders are lower in Poland than the returns to the target-company's shareholders in more advanced capital markets. It is worth noting that the competition in the market for corporate control has been more severe in the banking sector than in the other industries in Poland. The importance of the banking sector attracts the strongest financial institutions from all around the world. That leads to relatively higher abnormal returns for the target-bank's shareholders in comparison to the rest of the economy in Poland.

Next explanation of the differences is an overall downturn tendency on the Warsaw Stock Exchange that affected the banking industry to a relatively lesser degree. The share prices of banks didn't decline as it was the case for most of the publicly traded companies in Poland. Nevertheless, the overall recession has resulted in a slower increase of bank's share prices.

Among other factors affecting the low abnormal returns to the target-bank's shareholders, we could name legal regulations in Poland, and non-market reasons that lead some individual rates of return to be even negative. Some takeover announcements were made by the shareholders that already had actual control over the target bank and only wanted to increase the level of shareholdings.

The assessment of net consequences of takeovers in the banking industry should not be limited to the analysis of returns to the bank shareholders. We pointed out at a wide range of negative social effects of M&A activities in the banking industry for the entire economy. The gains of target-bank shareholders are primarily a result of wealth redistribution rather than value creation. Many stakeholders paid for the M&A of banks in Poland. Among the losers, we could name: managers and employees of banks, individual clients, small- and medium-size enterprises, local communities, and taxpayers. Also, a big involvement of foreign banks in the consolidation of the banking industry in Poland has negatively affected Polish-owned firms seeking financing of business activities.

Clearly, further empirical research on the welfare consequences of takeovers in the Polish banking sector is necessary.

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THE EFFECTS OF THE CORPORATE GOVERNANCE SYSTEM ON INNOVATION ACTIVITIES IN CROATIA

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1. INTRODUCTION

Competitiveness in markets where high added value is created is related to innovativeness. Innovation of products and processes provides a paramount contribution to restructuring of industrial structure of particular sectors and economy as a whole. Understanding the determinants of innovation performance requires tackling both market and wider institutional factors that influence the level and characteristics of innovation within an economy. These determinants are often analysed in terms of national innovative capacity, i.e. the ability of a country to produce and commercialise a long-term flow of innovative technology (cf. Stern, Porter and Furman, 2000), which involves R&D supply, absorption capacity, diffusion of knowledge and market demand (cf. Radošević, 2004). However, innovative activities occur within socio-economic systems[1], and it can be expected that wider institutional factors may strongly affect it. The capacity to innovate depends upon the national innovation system, which entails actors, relationships and interactions among actors that influence creation, diffusion, utilisation and commercialisation of knowledge within a country – with the

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[1] Socio-economic systems can be said to consist of three basic subsystems: institutions, technological regime and economic subsystem (cf. Dosi and Orsenigo, 1988). Although they are interlinked, a demarcation line between them can be outlined. Institutions are "durable systems of established and embedded social rules that structure social interactions" (Hodgson, 2004: 3). Technology regimes can best be understood as prevailing technology systems, practices and policies. Economic subsystem comprises firms and markets for capital, labour and products/services.

emphasis on research institutions, business sector and government (cf. Kuhlmann, 2001, Lundvall, 1992, 2006). Furthermore, innovation evolves within particular institutional environments and systems of corporate governance, which regulate business activities and influence the creation and utilization of new knowledge, as well as financing of innovation.

The main focus of the paper is the relationship between the system of corporate governance and innovation activities in Croatia. Račić and Aralica (2006) emphasized in their recent paper the relationship between institutional environment, market efficiencies and corporate competencies and stressed the importance of interaction of national innovation system and the corporate governance system for competitiveness and innovation within the economy. In this paper we take a step forward and further analyse the implications of the system of corporate governance on the level and prevalent modes of innovation activities and ways in which innovations are developed, financed and implemented within enterprises. Hereby the system of corporate governance and the national innovation system are viewed in terms of 'institutional complementarity' (cf. Amable, 2000), i.e. they are functionally interrelated and their respective institutions are expected to co-evolve depending on environmental demands and internal structures and relationships.

Several authors have attempted to explain industrial specialization of particular countries comparing corporate governance systems (and/or institutional frameworks in general) and innovation performance. Visintin (2001) outlined Italian industrial specialization in terms of innovation activities and noticed some possible directions for its change in view of the changing corporate governance system. Tylecote and Ramirez (2005) have explained technological innovation activities of the UK companies using a well-developed characterisation of the country's corporate governance and financial system. Furthermore, Casper and Matraves (2003) analysed how governance structures impact the innovation capabilities of leading German and UK firms in the pharmaceutical industry, showing how variations in national institutional frameworks influence the innovation process and relative performance.

This exploratory paper aims to contribute to the discussions on corporate governance and innovation by explaining the interrelationship between institutional conditions, corporate strategies related to innovation, and innovation activities, and by applying the framework to Croatia, as a transitional country with a specific developmental pattern. We have structured the paper in three main parts that follow the introduction. The second section is devoted to the literature overview, after which a case-study of Croatia is presented in the third section. The latter discusses corporate governance and innovation activities in Croatia, and is broken down into further parts, which deal with the system of corporate governance, innovation strategies and performance and corporate governance and external financing of innovation, respectively. The final summarises the main findings and offers some concluding remarks.

2. LITERATURE OVERVIEW

By corporate governance we mean "a set of relationships between a company's management, its board, its shareholders and other stakeholders" (OECD, 2004). Corporate governance is influenced by the firm's external and internal conditions. External factors comprise government and stock exchange regulation, national corporate governance code (if it exists) and the structure of relevant markets for capital, labour and products/services. Relevant internal conditions include ownership structure, internal organisation (especially the systems of decision-making and control and organisational culture), and power relationships among different stakeholders. Corporate governance in practice revolves around the definition of strategic objectives, means to fulfil them and instruments to measure fulfilment of these objectives, as well around the defining rights and relationships between main stakeholders concerning control, income flow, assets and liabilities, and information of the enterprise (cf. Mygind, 2001).

The emergence of knowledge-based economy complicates both value creation and risk management. Lazonick and O'Sullivan (1998) argue that, given organisational control over the strategic allocation of resources and returns, learning and innovation within enterprises is enabled by financial commitment (access to the financial resources until financial returns from innovation can be reaped) and organisational integration whereby stakeholders have the necessary incentives to jointly contribute their skills and efforts in the pursuit of common goals. At the societal level, corporate governance can be viewed as a learning process that operates through interaction among various stakeholders and results in particular social habits and institutions. Its effectiveness can be analysed in terms of processes (e.g. levels of transparency and accountability of managers and firms to their stakeholders) and (economic, social and environmental) outcomes. Effective governance requires a balancing process between the macro-level wider institutional frameworks, meso-level opportunities for stakeholder interaction and micro-level managerial autonomy and accountability (Račić and Podrug, 2004).

Given this embeddedness of governance arrangements into institutional frameworks and societal habits, there are various national systems of corporate governance. Despite emerging initiatives towards international standards (cf. OECD, 2004) and the harmonisation pressures induced by globalisation of financial markets and business operations, many differences are still likely to be preserved. This includes the basic distinction between Anglo-American (USA and UK) and continental European and East Asian governance systems, i.e. between 'shareholder' and 'stakeholder' capitalism, or (in the language of the 'varieties of capitalism' literature - cf. Hall and Soskice, 2001) between 'liberal' and 'coordinated' market economies.

Corporate governance systems are largely associated with corresponding financial systems; Berglöf (1997) refers to the former as arm's length (outsider-dominated) and to the latter as control oriented (insider-dominated) financial systems. Anglo-American systems tend to have larger size and stronger role of equity markets and more dispersed ownership, which results in portfolio orientation of investors towards the control of enterprises and a stronger role of boards of directors (as opposed to control-orientation of dominant shareholders and relatively weaker boards which are more frequent in systems characterised by more concentrated ownership and stronger reliance on banks, rather than equity markets)[2]. Corporate governance cannot be reduced to the publicly traded companies or market-based modes, because that

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[2] See Tylecote and Conesa (2002) for a more detailed discussion.

would severely limit its scope in bank-based financial systems whereby the stock market plays an ancillary role in corporate finance, and takeover threats are rare due to concentrated ownership structures. The issues such as disclosure and transparency of corporate practices, and the treatment of minority shareholders and other stakeholders are particularly pertinent here. Inadequate regulation and/or ineffective judiciary, as it is witnessed in many transition countries, further reinforce these problems. Therefore, reliance on arm's length modes is inadequate in the absence of markets for corporate control and a legal system that provides efficient redress mechanisms (Račić and Podrug, 2004).

Particular aspects of the corporate governance system - including modes of financing, level and types of coordination among stakeholders, corporate organisation and industrial relations – can be used as arguments in support of institutional complementarity between the corporate governance system and the national innovation system. The development of one system does not presuppose the development of the other[3], but they tend to be mutually reinforcing. The combined effects of these factors may thus significantly influence the innovative activities of companies operating under different governance regimes. The common view here is that Anglo-American systems are on average more conducive to radical innovation, due to stronger reliance on equity markets (and risk capital in particular), more flexible corporate organisation and restructuring facilitated by flexible industrial relations. The basic claim is expressed by Allen and Gale (2000: 406): "Markets will be especially effective at financing industries that are new or where relatively little relevant data are generated, that is, industries in which information is sparse and diversity of opinion persists."[4] Furthermore, Casper and Whitley (2002: 1) claim that, according to the 'varieties of capitalism' framework, liberal market economies 'excel in developing the necessary competencies to innovate in industries dominated by rapidly emerging technologies'. On the other hand, institutional frameworks in coordinated market economies tend to favour 'long-term and incremental innovation strategies, but inhibit more radical innovation paths' (cf. Whitley, 2000, Hall and Soskice, 2001). Casper and Whitley's (2002) findings related to software and biotechnology firms in Germany, Sweden and the UK largely corroborate these claims[5].

At corporate level, corporate governance relationships and processes tend to influence innovation and technology-related activities, such as R&D (cf. Lhuillery 2006). The empirical literature tends to focus on the influence of ownership on R&D and the influence of governance practices on R&D. The evidence on the relationship between ownership concentration and R&D activity is inconclusive. As for the relationship between type of owners and R&D activity, Munari, Oriani and Sobrero (2005) found negative relations between the bank institutional investors and R&D activity, whereas Berrone, Surroca and Triba (2005) established a positive relationship between non-bank institutional investors and R&D activity. The influence of the composition of the board of directors on R&D is researched mainly through examination of the role of the non-executive directors, whose stronger presence on the board, according to Lhuillery (2006), is relatively more likely to

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[3] For example, Zimmermann (2004) argued that Germany (despite a developed corporate governance system) has not sufficiently developed its national innovation system - especially in the area of science-industry relationship and utilisation of intellectual property rights.

[4] That does not necessarily have to mean that the *national* capital market will necessarily be the accessed. Companies can also go public abroad – as in the case of Israeli companies financed by venture capital, which often do initial public offerings in the USA.

[5] However, the current debate about the relative merits of corporate governance systems regarding innovation cannot be automatically applied to transition economies. Although these countries usually have bank-based financial systems, their institutions are often both underdeveloped and inconsistent, and capital markets may remain relatively shallow and illiquid (see the case of Croatia below).

promote innovation. As for the relationship between the governance practices and R&D expenditures, the results are also ambiguous. The CEO compensation scheme can stimulate corporate practice (Hall & Liebman, 1998), but no significant relation between the firm's compensation scheme for their managers and R&D expenditure could be found in the literature (Eng & Shackell, 2001). The previous results suggest that corporate governance may influence R&D intensity, but it seems that the relation between corporate governance and R&D is context-dependent (on the relevance of R&D expenditure within the corporation). When innovation is strongly embedded in corporate strategy, organisational features and resource allocations, and supported by adequate governance arrangements, positive effects on R&D expenditures and innovation activities in general are quite likely[6].

Furthermore, innovative capabilities of a company can often be facilitated by cooperative stakeholder relationships, which correspond to strategic concerns and are supported by adequate incentives and governance arrangements. This includes innovation cooperation with research institutions, suppliers, customers or other enterprises, as well as employee motivation through pecuniary (e.g. stock options, profit sharing, royalties etc.) and non-pecuniary means (e.g. organisational culture, learning opportunities etc.). Proactive relationships with seemingly more distant stakeholders may also increase innovative capabilities of a company – e.g. multisectoral partnerships between companies, public sector and nongovernmental organizations (cf. Bagić, Škrabalo and Narančić, 2004).

To sum up, corporate governance system, complemented by national innovation system, influences innovation activities in a country. That is also likely to occur at the level of particular companies. However, both relationships are still quite under-researched. Consequently, it is useful to provide case studies of particular countries which may assist in elaboration of more sophisticated findings on the issues. This is the aim of the following section, in which we examine the case of Croatia.

3. CORPORATE GOVERNANCE AND INNOVATION ACTIVITIES IN CROATIA

3.1. The system of corporate governance

The corporate governance regime in Croatia has emerged primarily through privatisation and institution building: economic assets have been defined and distributed through privatisation, which was complemented by as defining and enforcing legal and social frameworks that govern business transactions and firms engaged in them. However, the mismanagement of privatisation and institution building (cf. Račić and Cvijanović, 2005) contributed to underdeveloped capital market, high unemployment rate and insufficient technological and managerial upgrading of companies which results in their weak competitive position in the product/service markets[7]. Furthermore, institutional insufficiency (which was especially prevalent during the 1990s, but to some extent continues to date) meant the lack,

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[6] The relation between the corporate governance arrangements and the innovation activities is not unidirectional: there is also feedback from innovation to corporate governance. Successful innovation requires collective learning processes that lead firms to undertake coordination of investments and further to achieve productive interactions (cf. Antonelli, 2003). Depending on the novelty of innovations, sometimes a reorganization of a company is required (cf. Tylecote and Ramirez 2005).

[7] Moreover, the state still has control over a major share of the economy and provides rather sizable subsidies to companies it owns (cf. Račić and Cvijanović, 2005).

inconsistency or merely formal nature of institution building. Underdeveloped institutions have affected both the external and the internal incapacity of corporate governance mechanisms to steer business towards economically and socially viable goals and processes. Externally, weak legislation, ineffective judiciary and occasional political influences led to neglect of legal and social regulation, therefore increasing systemic risks and transaction costs. Within companies, the lack of independent external sources of authority that would facilitate best practices encouraged authoritarian tendencies in corporate governance and management. The lack of incentives to respect regulation and legitimise power by respecting principles considered just has made governance arrangements within companies into purely formal affairs (Račić and Cvijanović, 2005). On the other hand, only a small number of companies recognised the benefits of access to the capital market, including private equity providers.

Croatian financial system is similar to other transition economies; it is characterised by domination of banks and a relatively shallow and illiquid capital market (Cvijanović, 2004). Banks own 77.6% of all financial assets of the financial sector[8] (Rohatinski, 2006). In addition, almost all investment funds, pension funds and leasing companies are also owned by banks, whose total assets have exceeded USD 49 billion. Although turnover and market capitalization of shares has constantly been rising since 1999, this was mainly because of regulatory reasons and positive impact of approaching EU (Cvijanović, 2004; Zagreb Stock Exchange, 2004, 2005, 2006). Primary capital market has underperformed in terms of number of IPOs and bond issues; as such it has not played a strong role in financing of companies.

When it comes to ownership structures, the analysis of basic data of public joint stock companies[9] in 2005 has shown that their ownership structures are highly concentrated. In 57% of the public joint stock companies 10 largest shareholders have more than 80% of the shares (Račić and Cvijanović, 2006). According to Hruška (2005), the largest owner of these companies has on average an ownership stake of 46.95%. Although this is not an exception in comparison with other countries of continental Europe, the problem arises in connection with independent functioning of the supervisory board. Membership of the supervisory board in Croatia is primarily connected with ownership function, rather than professional competence (Račić and Cvijanović, 2006). Besides, more concentrated ownership means fewer members of the supervisory board, i.e. stronger control by the dominant shareholders. Furthermore, an average supervisory board does not fulfil all the strategic functions that are within its area of responsibility (Hruška, 2005; Tipurić, 2006). Hence, the conclusion that "ownership and control of Croatian corporations are rarely completely separated" (Hruška, 2005: 128) seems well founded. The latter is also correlated with inadequate protection of minority shareholders' rights and the lack of transparency in companies.

Consequently, the key challenges for further development of the corporate governance regime in Croatia include definition and promotion of good practices, protection of minority shareholders' rights, stronger role of supervisory boards, higher transparency of remuneration of management board members and alignment of their compensation with the performance of the company, strengthening internal audit systems and promoting organizational cultures that facilitate transparency and sustainable value creation (cf. Račić and Cvijanović, 2006).

Competitiveness requires transparency and institutional credibility and stability which stimulate companies to focus on proactive long-term strategies of value creation based on

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[8] However, that figure exceeded 90% few years ago (Samodol, 2003).
[9] They make the bulk of share trading at Zagreb Stock Exchange.

investment, innovation and stakeholder engagement. Despite regulatory and capital market-related improvements in the last decade, the system of corporate governance is still relatively underdeveloped; as such it is insufficiently conducive to innovation.

3.2. Innovation strategies and performance

In this section we tackle the level and characteristics of main innovation activities and the position of innovation within corporate strategies. The pilot Community Innovation Survey (cf. Račić et al., 2005) has shown that 34.8% Croatian enterprises are innovative. Product and process innovations are relatively frequent in manufacturing enterprises (53.8%), which even exceeds the EU-15 average (47%). Although the service sector predominates in the total structure of the economy, its level of innovativeness (19.3%), which is less than half of the EU-15 average (40%). The innovation process brings along significant risks and expenditures, which can inhibit or slow down its progress. Innovation activities are often marginalised within corporate strategies or reduced to incremental modifications of existing products and/or processes. Analysing the type of innovations[10] we observe that 12.2% of the firms save introduced radical innovations. Paradoxically, such innovations tend to be linked with the company's orientation to the national market: 75% of radical innovators claim that national market for them is more important than international markets. Correspondingly, a high share of innovators in Croatia do not undertake research and development at all (33.8% in the manufacturing sector and 20.8% in the service sector), and enterprises that invest into research and development have generally a low level of research and development intensity[11]. Aralica, Račić and Radić (2005) found no statistical interdependence between R&D activities and the innovation propensity of Croatian companies. The capability to make additional revenues from innovation is weak and the economic effects of innovations (e.g. the share of revenues from new products in total revenues) are thus limited.

Inadequate economic effects point to the lack of resources and/or capabilities for innovation.[12] Among the obstacles to innovation, high innovation expenditures and insufficient state support and the lack of the appropriate source are emphasises most frequently. The complexity of innovative activities, which result in high risks and costs should stimulate sharing of potential risks and rewards. However, the cooperation among the Croatian enterprises in the innovation development is rather weak. 66% of product innovations and 57% of process innovations are developed within the enterprise or within the group of enterprises. Only 2.0% of innovative enterprises are cooperating with other enterprises and institutions in the innovation development. In EU-15 19% of enterprises develop innovations in cooperation. A comparison with other countries of Central and Eastern Europe, which shows considerable lags, is given in Figure 1.

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[10] Innovations can be divided into radical and incremental ones. Radical innovation can appear as significant improvements of the existing or introduction of new products or processes that can change the competition dynamics thoroughly in a sector. Incremental innovations are small improvements of the existing products or processes (OECD, 2005).

[11] The overall level of R&D expenditures in the business sector (0.52% of GDP in 2004) is also low, although Croatia performs better than several new member states. Low technology and medium low technology industries account for almost ¾ of the value added (74.1%) in manufacturing (Aralica, 2007). These industries are mostly based on relatively stable technologies, unlike in the medium high technology and high technology sectors (cf. OECD 1997), which produce products using advanced and fast changing technologies that are usually accompanied by R&D investments. Consequently, companies in these sectors build their competitive position frequently by a product and/or process innovations (cf. Lall, 2001).

[12] A complementary explanation may also include structures of markets where firms operate. For example, markedly low levels of innovation in service sectors may be at least partly attributed to market concentration in those sectors, which are due to non-tradable nature of services and slow liberalisation.

Figure 1: Innovation cooperation in CEEC (in %)
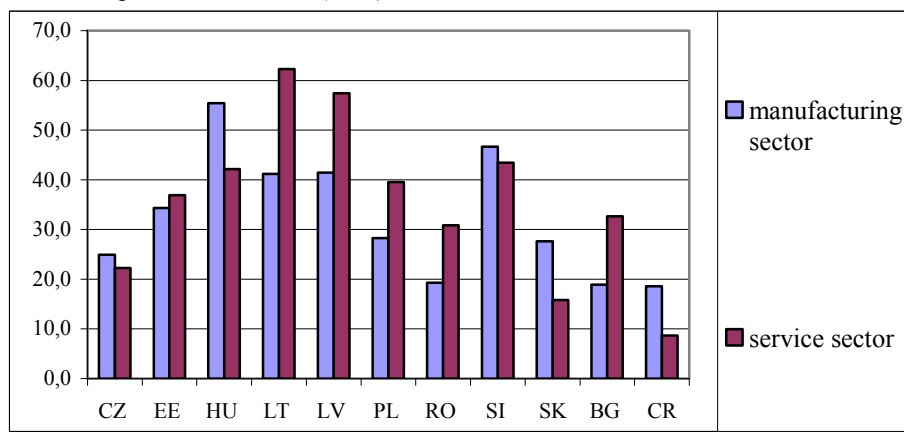
Source: EUROSTAT / Račić et. al. (2005)

The most frequent form of innovation cooperation involves suppliers of equipment, materials, components or software (manufacturing enterprises 10%, service enterprises 3.1%). The collaboration with academic institutions occupies the second place in manufacturing (6.2%) and the third place in service sectors (2.1%). Despite occasional positive examples, science-industry collaboration is still rather underdeveloped (cf. Radas, 2004, Radas and Vehovec, 2006).

Despite marginalisation of innovation within corporate strategies, their low economic effects and insufficient resources and capabilities as the main obstacles to innovation, it has been observed that enterprises rarely engage in innovation cooperation. Consequently, the industrial structure is characterised by underdeveloped strategic alliances, clusters and industrial networks. This issue is related to both strategy and corporate governance, whereby the lack of cooperative stakeholder relationships becomes a hindrance to risk sharing that would facilitate more radical innovation projects with higher value added. A possible solution to these problems may involve external investments accompanied by technological and managerial improvements, which is the topic of the next section.

3.3. Corporate governance and external financing of innovation

Improvements in corporate governance are often prerequisites and/or consequences of receiving external finance, because of transparency and reporting requirements and control mechanisms required by the providers of financial resources. Although debt may also entail strong commitments and induce governance improvements (especially in the case of debt securities) on the part of its issuer, our main focus will be on equity, given its higher risk and stronger monitoring prerogatives it implies. When discussing the effects of external finance on innovative activities in companies[13], it is useful to distinguish two main beneficiaries of financial inflows - both of which are related to raising corporate governance standards in companies. The first group comprises existing companies that have attracted - usually foreign - capital (often in the course of privatisation) and undergone restructuring that includes

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[13] The pilot Community Innovation Survey (Račić et. al, 2005) has shown that innovations in Croatian enterprises are mainly financed from own resources (79.2%), followed by bank loans (8.5%) and supplier credits (9.6%), which also implicates a strong connection of present innovation processes with the equipment procurement, but also points to the economic restrictions of more important level of innovation activities in Croatian enterprises. Government subsidies to innovation activities are rather rare and they are focused on manufacturing and smaller and medium size enterprises.

product and process innovations[14]. The second group consists of emerging innovative SMEs that require additional capital to finance their start up and expansion.[15] At the end of the section, we tackle the issue of venture capital - as a mode that is particularly suitable for innovation financing of smaller firms with growth potential. Namely, due to the intangibility of their assets, 'smaller firms pursuing innovation strategies may face greater difficulty in obtaining debt finance for start-up and the early stages of development than their conventional counterparts' (Brierley, 2001: 66).

As for the established companies, innovation in Croatian enterprises is related to the concern affiliation (62% enterprises belonging to the concern are innovative and 42.7% not belonging to the concern), which reflects positively on the transfer of innovations through the specific business systems (Račić et al., 2005). Higher innovativeness of enterprises with the foreign capital share is related to this issue[16]. Inflow of foreign capital usually brings about more effective governance and contributes to improvement of products and processes, but it is reasonable to assume that a significant part of innovations regards the product implementation or process innovation already present within the international concern or a business group. Since privatisation takeovers, as the most significant form of foreign direct investment, were until recently focused on conquering the domestic market, it was not possible to expect strong contribution to radical innovations and export competitiveness. A peculiarity of FDI inflows into Croatia is that almost 50 percent of the total FDI has gone into the services sectors, such as transportation and telecommunications and financial intermediation (cf. Bačić, Račić and Ahec-Šonje, 2004); given the non-tradable nature of most such services, it can be concluded that the investors have been motivated by market-seeking reasons. This is linked to seeking strategic control over the domestic companies through acquisitions of majority or controlling stakes, which enables alleviation of aforementioned governance problems (see above), easier restructuring and reaping of the corresponding returns on investment. On the other hand, corporate strategies are characterised by weak linkages with SMEs and with academic institutions; their restructuring rarely involves spin-offs that can be attractive to private equity investors, or acquisitions of SMEs that have grown on their own or have been nurtured by venture capital companies. There is only one significant corporate venturing vehicle - a private equity fund of EUR 35 million founded by nine Croatian corporate investors[17].

A comparison between the industrial structures of developed and Central and East European economies reveals that in transition economies SMEs play a comparatively smaller role in corporate production networks, and are characterised by lower levels of innovation (Iliev and Račić, 2004). In Croatia, the occurrence of innovations is related to the size of an enterprise: 35% of small firms, 50.4% of medium size firms and 60.6% of large firms innovate. Although this can be explained by more resources and very pronounced specialisation of employees in larger firms, an alternative interpretation emphasises the insufficient contribution of small and medium enterprises to innovation activities, lower level of inventiveness of new products and services[18] and thereto related lower level of economic effects of innovation (Račić et. al, 2005). The lack of innovative SMEs is related to underdevelopment of the science-industry

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[14] A wider definition of this group would also comprise greenfield FDI projects, which are expected to have adequate governance mechanisms from their establishment.

[15] Due to prohibitive costs for most venture capital and private equity providers, seed and start-up capital are rather rare in Croatia.

[16] 59.7% of enterprises with a share of capital of foreign origin innovate, in comparison with 33.5% innovators among enterprises that have not received any foreign investments (Račić et al., 2005).

[17] Quaestus Private Equity Partners, www.quaestus.hr

[18] The lack of inventiveness entails imitation of products of established strategies and production programmes of existing companies, rather than offering novelties on the market.

collaboration in general and of technology transfer and academic entrepreneurship in particular – in terms of incentive systems and financial (subsidies, debt and equity sources) and organisational resources that would facilitate new technology based firms to go through seed and start up stages. When it comes to existing innovative SMEs, their prosperity and growth may be limited by the entrepreneurs' strategy to preserve maximal degree of strategic control and avoid accountability obligations external finance brings (cf. McMahon, 2000). In a recently undertaken research, most of high growth export-oriented SMEs are owned by a single entrepreneur (or groups of entrepreneurs) who have recognised a business opportunity. Such enterprises tend to be managed in the style of enlightened paternalism. This is understandable, given the prevailing cultural norms and entrepreneurial climate during the transitional period, but it is questionable whether such ownership structures and management approach are suited for future enterprise development. If the aspiration to preserve maximal control over the enterprise prevails over optimal growth strategies, that can result in obstacles to collaboration within clusters or industrial networks, as well as to restructuring and mergers/acquisitions of companies, with reduced interest on the part of external investors (Račić, Aralica and Redžepagić, 2006).

Although enterprises list market reasons as key impediments to innovation, seen mainly through high costs and lack of adequate financing sources (cf. Račić et al., 2005), Young and Cvijanović (2006) found that supply of venture capital funds, as an inherent innovation financing source, exceeds demand, which implies lack of a qualified demand, due to the predominance of debt financing and the corresponding lack of equity financing culture among Croatian entrepreneurs. Venture capital industry in Croatia is currently valued around USD 100 million. There have not been any initial public offerings initiated by venture capital or private equity companies; few exits that have been made occurred through trade sales (sales of portfolio companies to a corporation) or buybacks. Iliev and Račić (2004) identified several constraints on the deal flow (investment proposals that are made to venture capital companies) in the Central and Eastern Europe that are also applicable here. Some impediments are related to the rare emergence of SMEs with innovative products and/or significant growth potential that could be nurtured by venture capital involvement (exhaustion of the privatisation pool, weak linkages with academic institutions, limited number and quality of corporate spin-offs). Others occur due to the lack of available financial and managerial resources necessary for SME creation and growth and stimulating venture capital interest and involvement. These include the lack of business angels and referral networks and experienced senior venture capital managers, as well as the aforementioned caution towards equity investments. Innovation policy should thus incorporate measures to address these concerns.

4. CONCLUDING REMARKS

The level and characteristics of innovation activities within an economy depend upon both market and wider institutional determinants. We have thus attempted to analyse the relationship between the system of corporate governance and innovation activities, using the example of Croatia. There is a need for further research on systems of corporate governance, corporate strategies and innovation activities in transition economies, as well as on the policies that may positively affect institutional development and economic performance.

Institutional frameworks that constitute the system of corporate governance have an impact on the level and prevalent modes of innovation activities and ways in which innovations are developed, financed and implemented within enterprises. Hereby one can observe strong complementarities between the system of corporate governance, financial system and national innovation system. Despite emerging initiatives towards international standards and the harmonisation pressures induced by globalisation, a variety of national systems of corporate governance many differences are likely to be preserved, including the basic division between Anglo-American and continental European and East Asian governance systems. Particular aspects of the corporate governance system - including modes of financing, level and types of coordination among stakeholders, corporate organisation and industrial relations are also useful for understanding the innovation activities and the national innovation system. The current debate about the relative merits of corporate governance systems regarding innovation cannot be automatically applied to transition economies. Their bank-based financial systems are often characterised by underdeveloped and/or inconsistent institutions, whereas their capital markets may suffer from being shallow and illiquid.

This has been the case in Croatia, whereby underdeveloped institutions have affected both the external and the internal incapacity of corporate governance mechanisms. Despite regulatory and capital market-related improvements, the system of corporate governance is still insufficiently conducive to innovation and, more generally, to corporate strategies based on investment, innovation and stakeholder engagement. In other words, there is a misalignment between the corporate governance system and innovative activities that characterise the emerging knowledge-based economy: the current conditions are conducive primarily to non-complex innovation activities. Enterprises with more ambitious business strategies based on innovation and higher governance and competitiveness standards may be burdened by higher risks and costs. This is reflected in the marginalisation of innovation within corporate strategies, which lead to their low economic effects. Despite insufficient resources and capabilities as the main obstacles to innovation, innovation cooperation is low - even in comparison with transition economies that the have joined the EU in 2004 and 2007. The lack of cooperative stakeholder relationships precludes risk sharing that could facilitate innovation projects with higher value added. This can at least in part be addressed by external investments accompanied by technological and managerial improvements. This may involve domestic and foreign direct investments into greenfield projects, established companies, including the innovative SMEs with a growth potential. The latter could be particularly effectively served by venture capital, whose involvement is limited by a limited deal flow. The lack of innovative SMEs is related to underdevelopment of the science-industry collaboration in general and technology transfer and academic entrepreneurship in particular – in terms of incentive systems and financial and organisational resources that would facilitate new technology based firms to go through seed and start up stages. The prosperity and growth of existing innovative SMEs may be limited by the entrepreneurs' strategy to preserve maximal degree of strategic control and avoid accountability obligations external finance brings.

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REGULATING THERMAL ENERGY
CASE OF CROATIA

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1. INTRODUCTION

Procedure for creation of a tariff system for energy related activities (provided as regulated or public service obligation[1]) is demanding relative to professional capacity for creating a tariff system methodology. It also includes analysis of energy entities performance which would be covered by the tariff system along with possibilities for implementation of a chosen methodology.

Governing regulatory authorities in the world determine (limit) and control prices of energy, generally by implementing method of economic regulation (Kahn, 1971). These methods are "built in" into the tariff system methodology. According to Croatian regulations, regulated prices of energy are determined by using a tariff system (Banovac, Kuzle, Tešnjak, 2005). Electricity prices, for example, contain a fee for a service of electric energy field, provided as a public service. Furthermore, it contains a fee for regulation of the field of energy and a fee for inherited costs (according to the Law for performing public services). Croatian Energy Regulatory Agency (CERA) passed the Tariff System for Energy Services for generation, distribution and supply of thermal energy in May 2006. The Tariff System omitted tariff entries (Official Gazette, 2006).

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[1] Public service obligation in this case is obligation for energy entities to supply defined services according to the Law as public services.

2. TERMINOLOGY, MATRIX OF THE TARIFF MODELS, TARIFF ELEMENTS AND ENTERIES

2.1. Methodology

In order to understand the contents of the Tariff System for energy service of generation, distribution and supply of thermal energy, without tariff entries, it is necessary to know the following terminology:

- Base year is the calendar year prior to the first regulation cycle,
- Matrix of the tariff model is an unique table containing tariff groups with tariff models and tariff entries,
- Regulation cycle is a period over several years during which equal parameters are used in order to calculate permitted maximal revenue an energy undertaking may have in providing generation, distribution and supply of thermal energy (first regulation period lasts three years and every subsequent five years),
- Regulation year is a part of the regulation cycle which is equal to period from January 1 to December 31 of a calendar year,
- Tariff element - label Te, is a part of the tariff model which relates to supplied thermal energy, power or fixed monthly fee,
- Tariff group - label Tg, is a group of tariff buyers of thermal energy determined as an unique individual category of consumption,
- Tariff model - label TM, is the model of calculation of thermal energy,
- Tariff entry - label Ts, is a part of the tariff system which is given in a currency value of each tariff element within a given tariff group, depending on a tariff model.
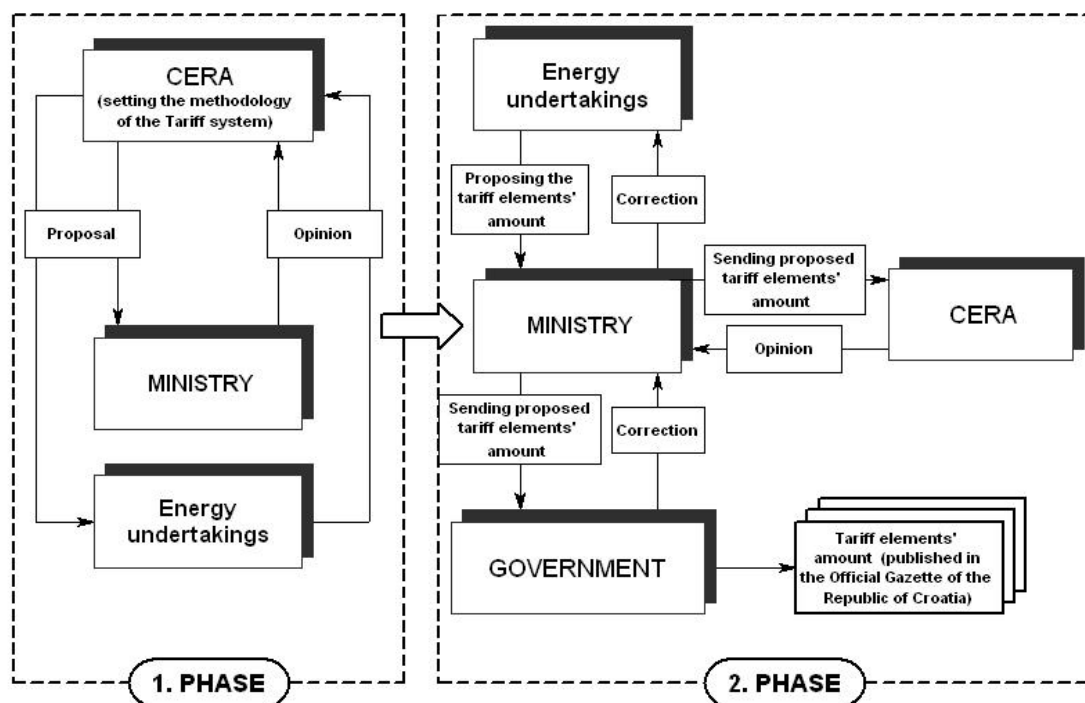
Figure 1.   Schematic overview of enactment of the Tariff System

2.2. Matrix of the Tariff Models

As mentioned above matrix of the tariff model is a specific table containing tariff groups with tariff models and tariff entries. Tariff entries $Ts_{(ij)}$ are given in matrix of the tariff model (see Table 1). Tariff elements taken in consideration are for:
- Supplied/taken over thermal energy in $[kn/kWh]^2$ when using separate meters or $[kn/kWh/m^2]$ when using joint meters,
- Power which is determined according to thermal energy consent in $[kn/kW]$ with hot/warm water or $[kn/t/h]$ with technological steam,
- Fixed monthly fee in $[kn]$.

2.3. Tariff Elements and Tariff Entries

Considered Tariff System for generation, distribution and supply of thermal energy has three components, because it is based on following three elements (components): Te_1 for supplied/taken over thermal energy, Te_2 for hired power according to the thermal energy consent and Te_3 for fixed monthly fee which includes: readiness of the propulsion system in thermal energy generation, maintenance and calibration of thermal energy meters in thermal energy distribution and accounting costs in thermal energy supply.

Tariff entries for energy activities of generation, distribution and supply of thermal energy are determined for three tariff groups: Tg_1 – industry and business users, Tg_2 – households on centralized heating system and Tg_3 – households on district heating (separate boiler-rooms). Within Tg_1 there are four tariff models, two for hot/warm water and two for technological steam (separate meters and joint meters). Within Tg_2 and Tg_3 there are two tariff models (separate meter and joint meter). In this way the matrix of the tariff models contains eight tariff models that cover all possibilities.

Table 1. Matrix of the Tariff Models

TARIFF GROUPS (consumption categories)	TARIFF MODEL		TARIFF ELEMENTS		
			Energy	Power	Fee
Industry and Business users	TM1 - separate meter	hot/warm water	Ts_{11}	Ts_{12}	Ts_{13}
	TM2 - separate meter	Technological steam	Ts_{21}	Ts_{22}	Ts_{23}
	TM3 - joint meter	hot/warm waer	Ts_{31}	Ts_{32}	Ts_{33}
	TM4 - joint meter	Technological steam	Ts_{41}	Ts_{42}	Ts_{43}
Households on centralized heating system	TM5 - separate meter		Ts_{51}	Ts_{52}	Ts_{53}
	TM6 - joint meter		Ts_{61}	Ts_{62}	Ts_{63}
Households on district heating (separate boiler-rooms)	TM7 - separate meter		Ts_{71}	Ts_{72}	Ts_{73}
	TM8 - joint meter		Ts_{81}	Ts_{82}	Ts_{83}

Source: authors.

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[2] Kn is the label for Croatian currency – Kuna.

3. TARIFF SYSTEM EQUATIONS

In the Tariff System for generation, distribution and supply of thermal energy we use a number of equations determined by the methodology of the Tariff System. The most important equations for energy undertakings are regulated maximal revenue of generation, distribution and supply (Štritof, Gelo, 2005). Furthermore, the importance of using some form of revenue cap to regulate maximal revenue of an energy undertaking is stressed in literature, e.g. (Rothwell, Gomez, 2003). Revenue equations are cost oriented, because the starting point is real costs which an energy undertaking may have in order to perform its activities. This is the reason for detailed description of tables for monitoring **normalized** costs.

a) Generation of Thermal Energy

Equation for calculation of maximal regulated revenue in regulatory year t for generation of thermal energy takes the following form:

$$P_{max(t)} = T_{fix(t-1)} \cdot (1 + I_t)(1 - X) + T_{var(t)} + RS_t + T_{gor(t)} + N \tag{1}$$

where

$T_{fix(t-}$	-	Amount for coverage of fixed costs in regulatory year t-1 [kn],
I_t	-	Consumer price index,
X	-	Coefficient of efficiency which can be [0 – 1),
$T_{var(t)}$	-	Amount for coverage of variable costs in regulatory year t [kn],
RS_t	-	Revenues from regulated funds in regulatory year t [kn],
$T_{gor(t)}$	-	Amount for coverage of fuel costs for regulatory year t [kn],
N	-	Amount for special fees [kn].

The most important is to cover total fuel costs[3] used for generation of thermal energy in regulatory year t. These costs in the Croatian thermal energy companies are between 70 and 85% of total operational costs[4]. Such a high growth of fuel costs on one side and fixed prices of services by thermal energy companies on the other side were the main cause of losses piling in last couple of years.

Next, important fact are technical losses in generation of thermal energy which CERA recognizes depending on used fuel, i.e. up to 15% for natural gas, 20% for heating oil, 20% for coal, 30% for biomass, biogas or waste. However, the CERA can issue consent to higher technical losses in generation of thermal energy for the first year of a regulatory cycle, if an energy undertaking requests and elaborates such a request.

b) Distribution of Thermal Energy

Equation for calculation of maximal regulated revenue in regulated year t for distribution of thermal energy takes the following form:

$$P_{max(t)} = [P_{max(t-1)} \cdot (1 + I_t)(1 - X)] \cdot o_{distr-kol} - K_t - Z_t \tag{2}$$

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[3] Sum of all types of fuel is included, i.e. for all types of oil, gas, coal, biomass, solar energy, geothermal energy, waste. The CERA monitors whether consumed amount of fuel is in correlation to total amount of energy generated in regulatory period t.
[4] In Western Europe these cost are no more than 50% of total operational costs in thermal energy companies.

where

$P_{max(t-1)}$	-	Maximal regulated revenue in previous regulated year t-1 [kn],
I_t	-	Consumer price index,
X	-	Coefficient of efficiency which can be [0 – 1),
$o_{distr-kol}$	-	Ratio of annually distributed amount of thermal energy,
K_t	-	Correction factor for regulated year t,
Z_t	-	Value of total losses in distribution network [kn].

Referent proscribed degree of distribution network efficiency η_{dm} = 87%, i.e. the CERA acknowledges technical losses in the distribution network up to 13%, calculated out of total thermal energy measured at the entry point of the network. After 2010 values of acknowledged losses will be harmonized with the EU values. This means that energy undertakings that carry out distribution of thermal energy are obliged to invest in modernization and reconstruction of the distribution networks.

c) Supply of Thermal Energy

Equation for calculation of maximal regulated revenue in regulated year t for supply of thermal energy takes the following form:

$$P_{max(t)} = P_{max(t-1)} \cdot (1 + I_t)(1 - X) - K_t \qquad (3)$$

where

$P_{max(t-1)}$	-	Maximal regulated revenue in previous regulated year t-1 [kn],
I_t	-	Consumer price index,
X	-	Coefficient of efficiency which can be [0 – 1),
K_t	-	Correction factor for regulated year t.

An energy undertaking that carries out supply of thermal energy is obliged to calculate consumption of thermal energy so as to present fixed costs (cost of power), variable costs (costs of supplied thermal energy) and fixed monthly fee.

In the first regulated cycle which lasts three years[5], coefficient of efficiency in equations (1), (2) and (3) has no influence because its value is zero ($X = 0$). Too short or too long regulated period has its advantages and disadvantages (Gelo, Štritof, 2005). Three years are optimal for full implementation of the methodology of the Tariff System. Given the experience of other countries, next regulated cycles will be five years long (Armstrong, Cowan, Vickers, 1994).

Beta coefficient (ß) is a measure of sector and system risk. Therefore, ß represents an indicator of risk of a sector compared to an overall market risk, i.e. measures sensitivity of stock earnings, in this case an energy undertaking compared to returns on a market portfolio.

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[5] The first regulated cycle encompasses period from 2006 to 2008 (starting on January 1, 2006). Values of X coefficients is determined by the CERA taking into consideration: incentives for achieved efficiency of an energy undertaking compared to a previous year, viewed analytically based on monitoring necessary indicators of business activities and expected revenue of a year in a regulated cycle, compared to the estimated business risk present at an energy undertaking.

Since in portfolio management the measure of risk is given by a covariance of returns on a particular stock and market portfolio, ß coefficient represents a standardized risk of a stock since it connects the covariance with the variance of returns to a market portfolio (Cowan, 2006).

Mathematically, the ß coefficient is calculated in the following way:

$$\beta e = \text{cov}\left[Re,\ Rm\right]/\sigma^2\left[Rm\right] \tag{4}$$

where
ße – beta coefficient of a stock,
cov[*Re, Rm*] – covariance of returns on a stock and returns on a market portfolio,
σ^2 [*Rm*] – variance of returns to market portfolio.

Most frequently for the market portfolio returns, market indices of the stock exchanges are used where the respective stock is quoted. In this case it is CROBEX index of the Zagreb Stock Exchange. If the historical data on returns to a stock of an energy undertaking and returns on a market portfolio are considered to be representative enough for future movements, than the historical data may also be used for calculation of ß coefficient for a stock.

Coefficient ß, as a standard measure of the system (sector) risk of a stock, has its advantages and disadvantages. Advantages are in possibilities of comparing returns to stocks in comparison to a market return. Disadvantages are in "punishment" of stocks with returns greater than market (higher ß for such stocks, i.e. higher risk). Also, ß coefficient may significantly vary given the period of calculation (daily, weekly, monthly, annual variations).
In order to make ß coefficient more credible longer time series should be used. Minimal requirement for stability is 36 months, along with a volume of trade of a stock. Furthermore, inconsistency of the theory and empirics may be due to correlation of other variables with β, e.g. there is evidence that investors are wiling to accept lower average return if they expect possibility of a very high return to a stock in the future. Also, β is a negative function of relative size of a company since there is a pressure to demand more revenue from smaller companies.

For majority of stocks that are publicly traded in the world stock markets, ß coefficient can be found in publications of several agencies[6] which give information of historical β values. This makes calculation of owner capital easier. However, calculation of β for energy sector in Croatia is not possible for several reasons. Basically, stocks of the energy sector are sparsely quoted at the Zagreb Stock Exchange.

The methodology estimates in first regulatory cycle β to be 1, and after this period for each subsequent regulatory year the value of β is determined by the CERA based on the data from the Zagreb Stock Exchange.

Recommended value of β in the Methodology is slightly overstated since it depends on stability of the energy sector, which is less risky regarding the demand for energy services stability. Stocks of energy undertakings are in general "defensive", reflecting lower risk of the sector compared to the market, which is expected. By taking the seasonal character of energy

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[6] E.g. Value Line Investment Survey and Standard & Poor's Reports, Ibbotson.

sector revenues, conservative estimate of β, for the first regulatory cycle, would be 0.8, up to maximally 1.0 (level stipulated by the Methodology).

It is important to develop alternative ways of calculating β coefficient, mathematically or by comparative analysis to countries with similar economic situation, which could be the best method given the situation.

When calculating the interest rate to owner capital by using CAPM model, which is generally acknowledged as the most suitable for this case, and over 75% of financial experts use it for estimates of capital costs (Graham, Harvey, 2001), higher ß coefficient marks a higher system risk and with it higher returns, i.e. higher interest rate to owner capital. The higher interest rate to owner capital yields a higher value of the weighted average cost of capita (PCKpond) which results in higher required returns than regulated funds (RSt). Calculating regulate funds is necessary in order to correctly set the maximal revenue of an energy undertaking.

Given the estimated value of ß coefficient for Croatia, which should eventually follow the market risk of shares quoted at the Zagreb Stock Exchange, the interest rate on owners capital should not vary much since the sector is one with a stabile demand. Under the condition that returns to non-risk Ministry of Finance treasury bills are used that yield 5.2% return, and the premium of market risk, given by the CROBEX index of the Zagreb Stock Exchange from 1998 to 2005, in the amount of 10.8%, with different acceptable values of β coefficient, the level of owners capital interest rate may vary as stipulated in Table 2.

Table 2. The interest rate to owners capital, given different levels of β coefficient

β coefficient	Owners capital interest rate (K_e)
0.3	8.4%
0.5	10.6%
0.7	12.8%
1.0	16%

Source: calculation by the authors

However, estimated value of β for the energy sector in Croatia should be taken with caution. It is questionable whether this figure can be obtained due to underdevelopment of the energy sector in Croatian capital markets. In this way, existing energy undertakings in the capital market represent poor proxy variable for calculation of sector risk β for thermal energy. Privatization of HEP, INA and other energy undertakings would largely help. In this case some time would be needed in order to obtain valid time series. Values for other transition countries as a reference point for determination of β for the Croatian energy sector in principle represents the best method of estimation, even though values vary a lot, with extremes between 0.3-1.0.

Given the equations (1), (2) and (3) which are used for calculation of maximal regulated revenue of generation, distribution and supply of thermal energy, equations are also used for energy undertakings to calculate total revenue for respective energy activities. These equations are determined by using the matrix of the tariff models, i.e. based on tariff elements

for energy, power and fees. Total revenue (monthly level –UPTM) in currency, for respective tariff models is calculated according to one of the two equations, i.e.

a) for separate meters of thermal energy is calculated by the following equation:

$$UPTM_{mj} = \sum_{z=1}^{n} Q_z \cdot Ts_{i1} + \sum_{z=1}^{n} W_z \cdot Ts_{i2} + k \cdot Ts_{i3}$$

(4)

b) for joint meters of thermal energy is calculated by the following equation:

$$UPTM_{mj} = \sum_{z=1}^{n} Q_z \cdot P_z \cdot Ts_{i1} + \sum_{z=1}^{n} W_z \cdot Ts_{i2} + k \cdot Ts_{i3}$$

(5)

where

n - Number of thermal energy meters,
k - Number of consumers,
Q_z - Quantity of thermal energy supplied through separate or joint meters z (kWh);
P_z - Surface for each z joint meter of thermal energy (m^2),
W_z - Hired power for z meter of thermal energy (kW); (t/h),
$Ts_{(ij)}$ - Tariff entries for energy, power and fixed monthly fee from the matrix of the tariff models (kn/kWh); (kn/t); (kn/kWh/m^2); (kn/kW); (kn/t/h); (kn).

From equations (4) and (5) it is obvious that the Tariff system for services of energy activities of generation, distribution and supply of thermal energy has three components.

Furthermore, equations (4) and (5) could, following the logic of tariff models, be developed into the following:

$$UPTM1 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{1im} \cdot Ts_{11m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{1im} \cdot Ts_{12m} + \sum_{m=1}^{12} k_m \cdot Ts_{13m}$$

$$UPTM2 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{2im} \cdot Ts_{21m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{2im} \cdot Ts_{22m} + \sum_{m=1}^{12} k_m \cdot Ts_{23m}$$

$$UPTM3 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{3im} \cdot P_{3im} \cdot Ts_{31m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{3im} \cdot Ts_{32m} + \sum_{m=1}^{12} k_m \cdot Ts_{33m}$$

$$UPTM4 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{4im} \cdot Ts_{41m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{4im} \cdot Ts_{42m} + \sum_{m=1}^{12} k_m \cdot Ts_{43m}$$

$$UPTM5 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{5im} \cdot Ts_{51m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{5im} \cdot Ts_{52m} + \sum_{m=1}^{12} k_m \cdot Ts_{53m}$$

$$UPTM6 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{6im} \cdot P_{6im} \cdot Ts_{61m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{6im} \cdot Ts_{62m} + \sum_{m=1}^{12} k_m \cdot Ts_{63m}$$

$$UPTM7 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{7im} \cdot Ts_{71m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{7im} \cdot Ts_{72m} + \sum_{m=1}^{12} k_m \cdot Ts_{73m}$$

$$UPTM8 = \sum_{m=1}^{12} \sum_{i=1}^{n} Q_{8im} \cdot P_{8im} \cdot Ts_{81m} + \sum_{m=1}^{12} \sum_{i=1}^{n} W_{8im} \cdot Ts_{82m} + \sum_{m=1}^{12} k_m \cdot Ts_{83m}$$

Total revenue of the Tariff Model 1 (*UPTM*1) is shown on yearly bases (*m*). By adding total revenues of all tariff models we get total revenue (*UP*) of regulated energy undertakings.

Energy undertakings that carry out generation, distribution and supply of thermal energy must propose levels of tariff entries based on transparent and justifiable calculation. A precondition is that expected revenue made in a regulation year t, calculated using equations (4) and (5), do not go over permitted maximal regulated revenue of an energy undertaking in regulation year t given by the Tariff System. This is monitored separately for generation (eligible buyers excluded), distribution and supply of thermal energy (eligible buyers excluded). Therefore, after adding up monthly (*m*) total revenues for calculation of annual total revenues according to the Tariff Models, by adding up entire amounts we get the *UP* in Kuna which represents total revenue for energy activates of generation/distribution/supply of thermal energy, calculated based on tariff elements.

In order for an energy undertaking to make total revenue in Kuna for energy activates of generation, distribution and supply of thermal energy, according to the rule of considered Tariff System the following condition must be met:

$$UP \leq P_{max(t)} \tag{6}$$

Because of this, an energy undertaking must propose level of tariff entries in transparent and justifiable way, in order to prove by calculation expected revenue in a regulation year t calculated on the basis of tariff entries for respective energy activities (generation, distribution, supply) are not greater than maximal regulated revenue (allowed revenue), as stipulated by equations (1), (2) and (3) for respective energy activities. This further means that the condition (6) is met.

4. SENSITIVITY ANALYSIS

Fuel costs represent over 60% of total costs in thermal energy sector. Importance of fuel increased in the light of oil price rise in the last two years. Consequently, gas and heating oil prices went up in the world and Croatian energy markets.

Costs of fuels are the function of generated thermal energy, i.e. direct consequence of primary energy sources, functions of installed capacities and technological-technical characteristics of facilities.

Standard specific costs of fuel are determined by the following equation:

$$T_{EG} = \frac{S_{PT}}{O_{VG}} \cdot P_{EG} \tag{7}$$

where
T_{EG} - standard specific energy costs for facility *i* (kn/MWh),
S_{PT} - standard specific use of heath per unit of generated thermal energy for make of facility *i* (kJ/MWh),
P_{EG} - real price of energy (kn/kg, kn/m^3),
O_{VG} - thermal value of a fuel (kJ/kg, kJ/m^3).

Real price of a fuel for energy transformation in the energy system FCO facility may be given by the following equation:

$$P_{EG} = p_1 + p_2 + p_3 + p_4 + p_5 + p_6 \qquad (8)$$

where

P_{EG} - real price of a fuel FCO facility (kn/kg, kn/m^3),

p_1 - real price of a fuel FCO refinery, FCO gas extraction point (kn/kg, kn/m^3),

p_2 - sales tax for a fuel (kn/kg, kn/m^3),

p_3 - transport costs of a fuel (kn/kg, kn/m^3),

p_4 - insurance costs (kn/kg, kn/m^3),

p_5 - tariffs and other import fees in case of fuel import (kn/kg, kn/m^3),

p_6 - other manipulative costs (kn/kg, kn/m^3).

Normative of a fuel use is defined per unit of generated heath as analyzed above.

The sensitive analysis conducted here gives sensitivity of a fuel price increase to average unit cost of thermal energy. Two basic scenarios were analyzed:

Scenario A – ratio of fixed and variable costs is 20:80 and ratio of power to energy is analyzed through two sub-scenarios;
>> Scenario A1 – ratio of power to energy is 40:60,
>> Scenario A2 – ratio of power to energy is 20:80,

Scenario B – ratio of fixed and variable cost is 40:60 and ratio of power to energy is analyzed through two sub-scenarios;
>> Scenario B1 – ratio of power to energy is 40:60,
>> Scenario B2 – ratio of power to energy is 20:80.

In order to make thing simpler we used fuel prices as variable costs and power costs are fixed.
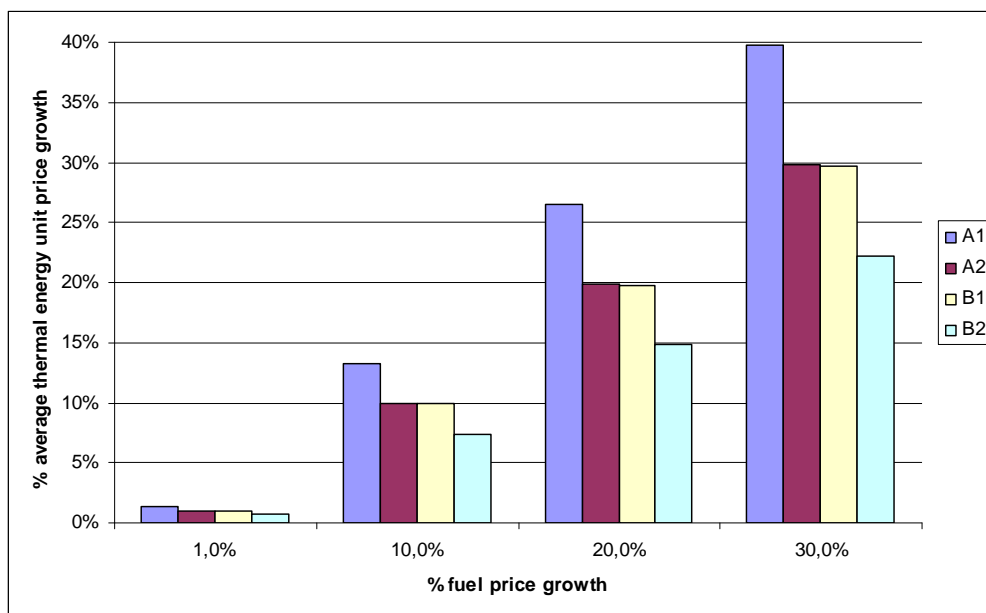
Figure 2.   Sensitivity Analysis

The most sensitive scenario is one with the highest share of variable costs, i.e. fuel costs, and also has high portion of fixed costs. This is scenario A1, where a rise of fuel price of 1% yield rise of thermal energy by 1.3%. In scenario B2 situation is reversed. Rise in fuel price of 1% yields rise of thermal energy of 0.7%, which is the least increase of all four scenarios. The difference between the two basic scenarios is 0.6%. The difference is even more significant in the case of 30% increase in fuel price. Here, the difference between rise in unit cost of thermal energy for given concepts is 17.5%. The analysis shows high sensitivity of thermal energy price to changes in fuel prices.

5. SUBMITING A PROPOSAL FOR CHANGE IN LEVEL OF TARIFF ENTERIES

An energy undertaking which carries out generation, distribution and supply of thermal energy submits a proposal for change of level of tariff entries in the Tariff System for services of generation, distribution and supply of thermal energy to the respective Ministry. Then the Ministry contacts the CERA to give an opinion on the proposal. An energy undertaking has to submit following documentation:

- Tariff model matrix with proposed levels of tariff entries and percentages of change of current situation,
- Detailed calculation of expected total revenue in a regulation year t which would have been realized on the basis of proposed levels of tariff entries, given that the calculation is done using acknowledged method provided in the Tariff System, i.e. the expected revenue is not higher than the allowed maximal revenue of an energy undertaking which is calculated according to the valid equation of the Tariff System for each energy activity,
- Financial report for previous regulatory year (including all segments) made according to international accounting standards,
- Audit report,
- Data, technical-economic, investment, sales, procurements, collection and receivables from buyers characteristic for the category of consumption,
- Plan of construction of new facilities, upgrading or reconstruction of existing facilities,
- Other information necessary in order to set up a changed level of tariff entry if requested by the Ministry or the CERA.

Furthermore, an energy undertaking is obliged to give access into investment-technical documentation of plans for new facilities projects or reconstruction.

6. CONCLUSION

This paper gives a solution to the problem of regulating thermal energy sector in specific conditions of a transition country. The Croatian experience, and solutions provided for regulating thermal energy sector do not have limited applicability for Croatia only. The methodology outlined here can be used on a wider basis of countries. Solutions provided are probably best suited for transition economies with similar legacy of past thermal energy management, but is not buy any means limited to them.

The methodology is tailored according to specific conditions in Croatia, so any other application should be used with caution in order to capture any country specific conditions that were not present in Croatia at the time.

Even though one should be cautious with direct transfer of methodology in other countries, this paper represents a complete solution for the thermal energy sector, which does not have to be limited to the sector in question. With some modifications and tailoring for other energy sources, this methodology may be used as a basis for further implementation in other fields of energy.

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MANAGING AIRPORTS
THE IMPACT OF LOW-COST CARRIERS

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Key words: *low-cost airlines, airport management,*
airport-airline relationship

1. INTRODUCTION

In the past decade there has been a considerable increase in the air traffic carried by low-cost carriers (LCCs). The emergence and growth of LCCs followed the deregulation and privatization of the aviation market during the 1990s. The first part of the paper develops a theoretical framework and examines low-cost carriers in terms of their product and operating features as well as current types of low-cost carriers resulting from many variations and great diversity between airlines.

Airports can benefit a great deal from the operations of low-cost carriers. Changing ownership patterns created a greater emphasis on commercialisation and attracted the attention to what were traditionally seen as non-core activities. This has attracted the attention of airport managers. Some implications for airports in relation to low-cost carriers are also discussed. Airport managers encounter pressures from changing airport-airline relationship, low-cost airlines and the growing importance of non-aeronautical revenues in reaching commercial objectives.

The second part of the paper uses original survey data. The survey method is detailed and followed by an analysis of the results. The empirical research included top and middle level managers at Dubrovnik airport. The aim of the paper is to analyze the airport managers` evaluations with regard to low-cost airlines activities and to identify important issues for airport management to take into consideration when negotiating with these airlines.

2. LOW-COST CARRIERS

2.1. Key characteristics of low-cost airlines

The rise of the low-cost airlines over recent years has been the most significant development in world commercial aviation. The concept originated back in 1977 when Freddie Laker introduced his cheap fare transatlantic Skytrain operation between London and New York, which eventually failed. However, it was effectively revived domestically in the USA in 1985 by Herb Kelleher`s Southwest Airlines, but it has also spread back to Europe where UK based Ryanair began low-fare flights in the early 1990s.[1]

European low-cost carriers have modelled themselves upon Southwest Airlines in the USA which has become highly successful and a role model for others to follow (Table 1.).

Table 1. The Southwest airlines` low-cost, no-frills model.

Product features	
Fares	Low
	Simple, unrestricted
	Point-to-point
	No interlinking
Distribution	Travel agents and direct sales
	Ticketless
In-flight	Single-class, high-density
	No seat assignment
	No meals
	Snacks and light beverages only
Frequency	High
Punctuality	Very good
Operating features	
Aircraft	Single type (Boing 737), four variants
	High utilisation (over 11 hours/day)
Sectors	Short to average below 800 km (500 miles)
Airports	Secondary or uncongested
	15-20 minute turnarounds
Growth	Target 10 per cent per annum
	Maximum 15 per cent
Staff	Competitive wages
	Profit-sharing since 1973
	High productivity

Source: Doganis, R., (2001): The airline business in the 21st century, Routledge, London, p. 134

The success of low-cost airlines derives from a focused business design, which is optimally tailored to meet the needs of air travellers who want to reach their destinations cheaply and efficiently. This business design consists of three key elements:[2]

- A simple product (no meals, no business lounge, no frequent-flyer programs, no baggage connections);

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[1] Donne, M., (2002): Low-fare Airlines – Global trends and developments, Travel & Tourism Analyst, p. 1
[2] Schneiderbauer, D., Fainsilber, O., (2002) Low-Cost Airlines Gaining Momentum in Europe, p. 19

- Positioning that directly targets leisure travellers and price-conscious business travellers, by offering frequent, short haul point-to-point service between less congested secondary airports;

- Low operating costs and sales commissions combined with high productivity, which enable such airlines to achieve higher margins then incumbents.

Though there are numerous variations across low-cost operators the general concept is that costs are cut compared to traditional or so called "legacy" airlines. The main features common to the majority of LCCs are: low tariffs and simple operations, direct short haul routes, internet booking, use of secondary airports with little congestion to enable short turnaround times, minimum delays, aircraft of a single type, high aircraft utilization, minimum cabin crew, no seat assignment and no class differentiation.

2.2. Low-cost models

Although the term "low-cost airlines" is very often used, it must be pointed out that there is no single best definition of "low-cost" airlines.

Currently, the LCC model has expanded way beyond its original development in the US and it is possible to conceptually categorise five broad types of low-cost carriers:[3]

- Southwest copy-cats – airlines that are closest to the "Southwest model" and they minimise costs through operating mainly point to point services, a single type of aircraft and high aircraft utilisation;

- Subsidiaries – low-cost carriers that have been set up as subsidiaries of long established major airlines to compete and gain a share of the low fare sector;

- Cost cutters – long established legacy airlines that are now attempting to cut their operating costs;

- Diversified charter carriers – low-cost subsidiaries developed by charter airlines in order to operate low-cost scheduled services;

- State subsidised competing on price – airlines that are not true low-cost carriers, they are financially supported by Government ownership or subsidy allowing them to offer low fares without the need to cover their long run average costs.

As it can be seen, there is not one standard low-cost airline model, but it is also important to underline that there are considerable differences within each group presented.

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[3] Francis, G., Humphrey, I., Ison, S., Aicken, M., (2006): Where next for low cost airlines? A spatial and temporal comparative study, Journal of Transport Geography, p. 84

3. THE IMPACT OF LOW-COST AIRLINES ON AIRPORTS

3.1. Airport-airline relationship: traditional model and new commercial model

Airports are important contributors to the economies of the countries they serve. Without the airlines, airports have no market.

Traditionally, airports have viewed the airlines as their primary customers, while passengers have been perceived by airports as part of the airlines business, and as such little has been done by airports to proactively draw revenue from airline passengers and thus airlines have considered the passengers as their primary customers.[4]

Since the mid-1990s, airports have become more commercially oriented and they have tried to generate an increasing share of their revenues and of their profits from their commercial or non-aeronautical activities.[5]

Airports have placed more emphasis on non-aeronautical revenues or so called non-aviation-related activities (Table 2.) so the traditional airline-airport-passenger relationship has become more complex.

Table 2. Main airport and non airport-related activities.

Aviation-related activities	Non-aviation-related activities
Landing fees	Renting fees from additional spaces to airlines, catering firms, forwarders, cargo operators, tour operators, travel agents
Air traffic control (ATC) fees	Renting fees and commissions from commercial ventures (boutiques, duty-free shops, banks, parking sites…)
Passengers and cargo-boarding fees	Direct sales arising from shops owned or managed directly from the airport authority
Handling fees	Other complementary activities

Source: Jarach, D., (2001): The evolution of airport practices: towards a multi-point, multi-service, marketing-driven firm, Journal of Air Transport Management, 7 : 122

Airports are increasingly seeing the importance of viewing passengers as customers because they generate non-aeronautical revenue, but depend on the airlines to bring in the passengers and so really are trying to satisfy both.[6]

3.2. Implications for airports

Airports clearly benefit quite substantially from low-cost carriers and unfortunately there are more airports than carriers. In 2002, Southwest received requests for service from 140 destinations in the US. The situation is similar in Europe and this allows airlines like Ryanair to negotiate very good terms which can be locked in through long-term contracts.[7]

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[4] Francis, G., Humphrey, I., Ison, S., (2004): Airports` perspectives on the growth of low-cost airlines and the remodeling of the airport-airline relationship, Tourism Management, p. 508
[5] Doganis, R., (1992) : The airport business, Routledge, London, p. 112
[6] Francis, G., Fidato, A., Humphreys, I., (2003): Airport-airline interaction: the impact of low-cost carriers on two European airports, Journal of Air Transport Management, p. 267
[7] Gillen, D., Lall, A., (2004): Competitive advantage of low-cost carriers: some implications for airports, Journal

An airport with a dominant single low-cost carrier is subject to more risk and low bargaining power. This stems from the increasing importance of non-aviation revenue in total airport revenue and the threat of shifting airports.[8]

Regarding the fact that low-cost air carrier market is very dynamic one and is characterized by the expansion of existing low-cost airlines, new upstarts, takeovers and bankruptcies with market exits, airport managers have to be very cautious and aware of the potential risks of entering into new economic relations and bear in mind the possibility of withdrawal from market.

Given the attractiveness of this market as well as rapid growth of new low-cost carriers, airports need to estimate which carriers are expected to carry on long-term operations and to make sure the airline-airport agreement indicates the degree of risk and the cost implications of the airline either going bankrupt or withdrawing services.

3.3. Managerial implications

European low-cost carriers are a phenomenon of the 1990s and since 1995, these airlines have experienced a significant growth in their market share. According to the 2006 data, the number of low-cost airlines has fallen by 2 to 50 [9], operating out of 22 states in Europe.

There are approximately 200 airports in Europe that can be classed as underutilised with less than 1 million passengers per annum and the majority are loss-making, publicly owned and subsidised by central or regional government. Identifying ways to increase passengers number, such as attracting low-cost operators is an appealing way for airport managers to attempt to improve their financial performance.[10]

Many airport managers have perceived attracting low-cost carriers of vital importance, but the question remains – at what price? These carriers have forced airport revenue down by negotiating with airport management for reductions in charges. It is important for airport management to understand the dynamism of the low-cost market and particularly to keep in mind the possibility of withdrawal from market.

On the other, recent surveys have shown that that cost is not necessarily the first choice for LCCs when selecting an airport. The primary concern is that there is sufficient demand to justify the provision of services, so airport managers, in looking to attract LCC services, need to ensure their marketing approach reflects this, with an emphasis on demand, turnaround facilities and slot availability as well as cost.[11]

The following section illustrates the case of Dubrovnik airport. The airport managers` evaluations as regards LCCs will be discussed. It can be observed that the case of Dubrovnik is somewhat specific since it will show that managers do not see any particular impact from LCCs and additionaly behave rather as a monopoly.

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of Air Transport Management, p. 48

[8] Gillen, D., Lall, A., (2004): op.cit., p.50

[9] http://www.eurocontrol.int/statfor/gallery/content/public/analysis/195%20LowCostMarketUpdateMay06.pdf

[10] Francis, G., Humphrey, I., Ison, S., (2004) : op.cit., p. 509

[11] Warnock-Smith, D., Potter, A., (2005) : An exploratory study into airport choice factors for European low-cost airlines, Journal of Air Transport Management, p. 392

4. CASE STUDY OF DUBROVNIK AIRPORT

4.1. Dubrovnik Airport

Dubrovnik airport is located approximately 20 kilometres from Dubrovnik city centre. In 2005, Dubrovnik airport recorded 1,083.240[12] passengers. Dubrovnik is a secondary airport and together with Zagreb and Split airports amount to approximately 90% of the total passenger traffic in Croatia.

As well as other Croatian airports, Dubrovnik airport is 55 per cent owned by the state, with the remaining 45 per cent divided between different levels of local authority.

The fact that the majority of air traffic is concentrated during the summer season brings to light the problem of seasonality Dubrovnik airport is facing. The low season represented by the months of November, December, January, February and March accounted for 10 per cent of total traffic realized in 2005. The busiest months for air traffic were July and August when almost one third of the traffic at the airport of Dubrovnik was realized.

Analysis of the top twelve air carriers by passengers carried enables it to be demonstrated that air links are characterized by both scheduled and non-scheduled services (Table 3.).

Table 3.Top 12 air carriers by passengers carried, 2005

Air carriers	Number of pax	Share
Croatia Airlines	414,424	38.26
Air Adriatic	62,968	5.81
British Airways	52,790	4.87
Air Mediterranee	49,862	4.60
Dubrovnik Airline	45,625	4.21
Norwegian Air Shuttle	38,908	3.59
Europe Air Post	26,397	2.44
Aer Lingus	23,589	2.18
Thomsonfly	21,081	1.95
Austrian Airlines	20,228	1.87
Eirjet	18,343	1.69
SkyEurope	17,465	1.61
Other	291,560	26.92

Source: http://airport-dubrovnik.hr/statistike.htm

The main scheduled airline is the country`s major flag carrier Croatia Airlines. During the summer, there are several charter airlines (Air Mediterranee, Air Adriatic, Dubrovnik Airline..) bringing tourists, mostly from European countries. Several low-cost carriers serve the airport – Germanwings, Norwegian Air Shuttle, Hapag-Lloyd Express, Aer Lingus and SkyEurope Airlines.

As far as the number of passengers by country of origin is concerned, the dominant segment is consisted of the passengers from France, United Kingdom, Germany and Ireland representing approximately 55 per cent of all passengers.

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[12] http://www.airport-dubrovnik.hr/statistike.htm

4.2. Data and methodology

The survey consists of data that was gathered via the interviews with airport managers in November and December 2006 at Dubrovnik Airport by authors. Altogether five airport managers employed at Dubrovnik airport were interviewed. The research has been directed to the analysis of the airport managers` evaluations with regard to low-cost model activities and to identification of important issues for airport management to take into consideration when negotiating with low-cost airlines.

The survey consisted of 12 questions (six questions about airport managers` characteristics, two about decision making process and four about the importance of LCCs for Dubrovnik airport).

4.3. Survey findings

This research includes six demographic characteristics of airport managers employed at Dubrovnik airport (gender, age, qualifications, the type of qualifications, management levels and management sector).

Analysing the demographic breakdown of the sample it is obvious that the airport business is "kept" for men because four out of the five managers surveyed were male and only one of them was female working as a legal services adviser in middle level management position which is not directly connected with the decision making process and the settlement of the goals and strategies of the company. Two management levels were incorporated in the research, top and middle level management. Those interviewed included the commercial manager, finance manager, trade manager, common affairs manager and legal services adviser.

Two out of the five managers form part of the group between 51 and 60 years and are at the top level management, two of them are under 30 years old and one manager is between 31 and 40 years old. These younger managers are at the middle level management. This is logical because the managers have to build their carriers and at the top level management the practice and the years of experience are among the most important issues.

The qualification structure of airport managers shows that the majority of the managers surveyed have university diploma, which can be explained by the fact that their position at Dubrovnik airport requires higher school education since they create business policies, strategies, goals and they have to take responsibility for all decisions which they make.

With regard to the type of qualification structure of managers surveyed, it can be well observed that the majority of airport managers (four of them) have mostly economic or juridical background. This was expected given the main courses of doing business at the airport.

When is about level of management two managers surveyed are at the top level management with the remaining three of them at the middle level management. The managers in top management positions plan, organize, direct and control activities of the department for which they are responsible or the business they operate. They also develop and implement policies and systems for their department.

In the paper the decision making models and the influence on the decision making process are also analysed. The managers were asked to rank the objective as well as subjective rationality when making decisions on a Likert scale running from 1 to 3. Three of the managers surveyed believe that they often use objective rationality when they make decisions and the two of them do this rarely. When talking about subjective rationality the circumstances are somewhat different, three of the managers answered that they made their decisions rarely on a subjective basis, and the two of them stated that they did that often.

According to the airport managers their influence on decision making in doing business at Dubrovnik airport is considerable in two situations and medium in three cases. Furthermore, the connection between these answers and the levels of management can be made. Top level managers have considerable influence while middle level managers have medium influence on decision making process. This is not surprising considering the fact that these two categories are closely connected.

The survey has also illustrated that all airport managers perceive both passengers and airlines as their customers. In the past the traditional airport-airline relationship depended largely on aeronautical charges. Today, airport managers view passengers as equal partners of the airport. The increased focus of airport management on passenger spending in the terminals is evident. This confirms the changing nature of airport-airline relationship discussed earlier.

It was interesting to look into the negotiating position of both LCCs and Dubrovnik airport. All managers surveyed share the same opinion over this issue. They all consider the airport of Dubrovnik to be in much better position in dealing with LCCs. All the managers indicated negotiating dominance of Dubrovnik airport. Airports such as Dubrovnik are in a better bargaining position because more than one low-cost carrier operates from Dubrovnik airport. Any threats made by an individual carrier to end service are less possible given the alternatives of the airport. The survey data suggest some reasons which may be causing better bargaining power of Dubrovnik airport, primarily the location advantage of Dubrovnik. Dubrovnik has a reputation as an attractive tourist destination and is certainly not in a hopeless situation. It does not depend on the low-cost carriers and thus is not forced to subsidize low-cost airlines in order to increase the number of tourists.

The growth of low-cost carriers has given revenue-generating opportunities to the airports. Good non-aeronautical revenues for the airport are considered a significant factor in dealing with low-cost carriers. The findings indicate that all managers surveyed agree that the passengers flying with LCCs can contribute considerably to the raise of non-aeronautical revenues. Bearing in mind the importance of non-aeronautical revenues, this focus is understandable.

At the end of the research it was interesting to reveal which airline companies are considered to be the principal players for Dubrovnik airport. The opinions of managers differ over this issue. Four of them are of opinion that traditional scheduled companies are their most important objective, while one of them perceive charter airlines as such. None of the managers surveyed pointed out the LCCs as the primary orientation of the airport .

Dubrovnik airport is served by both scheduled and non-scheduled airline companies. Additionally, considering the high percentage of traditional and charter airlines the airport of Dubrovnik has the possibility of dictating business terms in dealing with LCCs. Based on this

argument, it can be concluded that in order to stay competitive the airport will not be forced to accept LCCs or to offer them lower rates in order to be attractive.

5. CONCLUSION

The most remarkable new development in world air transport in recent years has been the rapid growth of the low-cost airlines. These airlines exert an influence in air transport markets with consequences for the airports which can benefit considerably from their operations.

The analysis is based on a survey that included top and middle managers at Dubrovnik airport. The main objective of this paper is to identify the perception of low-cost carriers from the airport managers` viewpoint.

Overall, the analysis of the results has highlighted the importance of seeing both passengers and airlines as customers emphasizing that the traditional airport-airline interaction has become more complex. The survey has also identified the levels of airport managers` objective and subjective rationality used in decision making processes at the airport. All the managers interviewed are aware of the fact that attractive geographical location can afford airport a considerable strength from which to discuss terms and conditions with low-cost airlines. Consequently, airport managers indicated negotiating dominance of Dubrovnik airport. Airports such as Dubrovnik have a strong bargaining position because more than one low-cost carrier operates from Dubrovnik airport. However, the majority of airport managers surveyed consider traditional airlines to be the principal players for Dubrovnik airport pointing out that Dubrovnik airport does not depend on the low-cost carriers and thus is not forced to subsidize low-cost airlines in order to increase the number of tourists.

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THEME III

NEW INSIGHTS FOR ECONOMICS AND POLITICAL ECONOMY

III-1

EU enlargement and economic and regional development

TRANSITION CAPITAL MARKETS COMPARISON BY EFFICIENT FRONTIERS

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Key words: *transition capital markets, efficient frontier,*
alternative risk measure

1. INTRODUCTION

In the paper efficient portfolios, i.e. efficient frontiers are calculated on the capital markets of the 5 transition countries from the group of the South Eastern European (SEE) countries: Bosnia and Herzegovina, Bulgaria, Croatia, Romania and Serbia. Although young and transitional, capital markets of observed countries satisfy all the conditions needed for correct application of the presented portfolio theory.

The contemporary theory of portfolio management as introduced by H. M. Markowitz is based on observation of relative increase in the securities prices and the definition of return as their mathematical expectation, and risk as their variance. It is important to point out that in this mean-variance (M-V) model, the assumption of the normal distribution of stock's returns must be satisfied, but in practice it has almost never been verified. In such cases the variance is not the adequate risk measure. Because of the non-normality of the data in this study, the lower semi-variance as alternative risk measure is applied. It can be said that it is the measure of risk which retains good properties of variance and overcomes its disadvantages.

After presenting the elements of the theory, we calculate the efficient (optimal) portfolios on the capital markets of observed countries. The securities for each country are selected according to: (1) their inclusion in the capital market indices baskets on 17th July 2006, and (2) their presence on the market from February 2004 to March 2006. By programming in MATLAB ten efficient portfolios and appropriate efficient frontiers are calculated for each observed country. The results are compared and interpreted in terms of conditions on the transitional South East European Capital markets, and guidelines are given for the possible

use of the obtained results. It is confirmed that the interdependence of evaluated efficient frontiers is in accordance to the country's economic-financial position in the region, with exception of Serbia's frequent and growing young capital market.

2. FORMULATION OF MEAN - LOWER SEMI - VARIANCE MODEL

In financial theory, models allowing the selection of an optimal portfolio are all inspired from the conventional theory (Markowitz one) which is exclusively based on both the criteria of expected return and risk measured by the variance. The Markowitz's theory of the portfolio selection, based upon the mean-variance (M–V) criterion, describes how we calculate a portfolio which exhibits the highest expected return for a given level of risk, or the lowest risk for a given level of expected return (efficient portfolio).

Mathematically, we may define an efficient portfolio as follows. For a given portfolio return *m*, an efficient portfolio *x* is one that solves

$$min \; V(\,w\,) = w'Cw \qquad\qquad\qquad (1)$$

subject to

$$E(w) = E'w = m\,, \qquad\qquad\qquad (2)$$
$$e'w = 1\,, \qquad\qquad\qquad (3)$$

where

E is the vector of expected return of assets,
C is the covariance matrix,
w is the vector of weight of assets,
e denotes the vector which elements are equal 1.

The set of all efficient portfolios is called the efficient frontier.

The problem of portfolio selection is, according to this theory, a simple problem of quadratic programming which consists in minimizing risk (measured by the variance of returns distribution) while keeping in mind an expected return which should be guaranteed.

To obtain the set of the efficient portfolios within the framework of the 'M–V' model, it is important to point out that two following assumption must be verified: (1) that of a quadratic utility function to represent the investor's preferences, and (2) that of the normal distribution of stock's returns.

Normality of distribution of stock's returns has almost never been verified. Most of the empirical tests have resulted in an asymmetrical and (or) leptokurtic distribution (Cloquette et al., 1995).

Variance is a symmetric measure and "penalizes" gains and losses in the same way, and, therefore, in cases when distribution of return is not symmetric it is not a satisfactory

measure. Measure of risk which retains good properties of variance and overcomes its disadvantages is lower semi-variance.

Lower semi-variance is defined as follow:

$$V\_(w) = E\left[\left|R(w) - E(w)\right|_-^2\right] \tag{4}$$

where $R(w)$ is the rate of return of portfolio w and

$$|u|_- = max\{0, -u\}.$$

Lower semi-standard deviation $\sigma\_(w)$ is square root of $V\_(w)$.

Let us assume that $R = (R_1, R_2, ...R_n)$ is distributed over finite set of points $r_t = (r_{1,t}, r_{2,t}, ..., r_{n,t})$ $t = 1, 2, ..., T$. These are obtained for example by historical data. Let $p_t, t = 1, 2, ..., T$ be the probability that R attains $r_t = (r_{1,t}, r_{2,t}, ..., r_{n,t})$ (we usually chose $p_t = \frac{1}{T}$) and W is the set of feasible portfolios, where

$$W = \left\{(w_1, w_2, ..., w_n) \left| \sum_{j=1}^{n} E(R_j)w_j \geq \rho, \sum_{j=1}^{n} w_j = 1, \ l \leq w_j \leq u, \ j = 1, 2, ..., n \right.\right\} \tag{6}$$

and ρ, l and u are appropriate constants.

This model is represented as follows:

$$min \ \left(\sum_{t=1}^{T} p_t \left|\sum_{j=1}^{n}(r_{j,t} - E(R_j))w_j\right|_-^2\right) \tag{7}$$

subject to $(w_1, w_2, ..., w_n) \in W$.

This problem is reduced to the following quadratic programming problem:

$$min \ \left(\sum_{t=1}^{T} p_t z_t^2\right) \tag{8}$$

subject to

$$z_t \geq -\sum_{j=1}^{n}(r_{j,t} - E(R_j))w_j, \quad t = 1, 2, ..., T$$
$$z_t \geq 0, \quad t = 1, 2, ..., T \tag{9}$$
$$(w_1, w_2, ..., w_n) \in W.$$

Then an optimal solution $(w_1^*, w_2^*, ..., w_n^*, z_1^*, z_2^*, ..., z_T^*)$ of this problem satisfies the relation

$$z_t^* = \max\left\{-\sum_{j=1}^{n}\left(r_{j,t} - E(R_j)\right)w_j^*, 0\right\} = \left|\sum_{j=1}^{n}\left(r_{j,t} - E(R_j)\right)w_j^*\right|_- \tag{10}$$

by noting that $p_t > 0$ for all t. Therefore $\left(w_1^*, w_2^*, ..., w_n^*\right)$ is an optimal solution of (7).

3. CALCULATION OF EFFICIENT FRONTIERS

3.1. Data

Using the presented model we subsequently calculate the efficient portfolios and draw the efficient frontiers for the observed capital markets. From the total number of securities quoted on the stock exchanges, samples of shares have been separated. Each sample has been created according to presence of shares on the relevant market from February 2004 to March 2006, and their inclusion in the market index on the 17th July 2006.

The share sample for Bosnia and Herzegovina from SASX-10 index is: BH-Telecom d.d. (BHTSR), JP Elektroprivreda BIH d.d. Sarajevo (JPESR), JP Elektroprivreda hzhb d.d. Mostar (JPEMR), Bosnalijek d.d. Sarajevo (BSNLR), UPI-banka d.d. Sarajevo (ENISR), Klas d.d. Sarajevo (ABSBRK2), Hidrogradnja d.d. Sarajevo (HDGSR), Pivara Tuzla d.d. Tuzla (PITZRK1).

From Bulgaria's SOFIX index the next shares are taken: Slantchev Briag AD (SLB), Albena AD (ALB), Blagoevgrad-BT AD (BLABT), Bulgartabac Holding AD (BTH), Zlatni Piasaci AD (ZLP), Petrol AD (PET), Sopharma AD (SFARM), Biovet AD (BIOV), Neochim AD (NEOH), CB Central Cooperative Bank AD (CCB), Orgachim AD (ORGH).

Companies included in Croatia's sample from CROBEX index are: PLIVA d.d. (PLVA-R-A), ADRIS GRUPA d.d. (ADRS-P-A), Podravska prehrambena industrija d.d. (PODR-R-A), Atlantska plovidba d.d. (ATPL-R-A), Končar elektroindustrija d.d. (KOEI-R-A), Dalekovod d.d. (DLKV-R-A), Kraš d.d. (KRAS-R-A), Plava Laguna d.d. (PLG-R-A), Istraturist Umag d.d. (ISTT-R-A), Privredna banka Zagreb d.d. (PBZ-R-A).

From Romania's BET index the next shares are taken: Antibiotice Iasi (ATB), Azomures Tg. Mures (AZO), BRD-Groupe Societe Generale Bucuresti (BRD), Oltchim RM Valcea (OLT), Rulmentul Brasov (RBR), Petrom Bucuresti (SNP), Turbomecanica Bucuresti (TBM), Banca Transilvania Cluj Napoca (TLV), Impact Bucuresti (IMP), Rompetrol Rafinare Constanta (RRC).

The share sample of Serbia's index BELEX15 is: Hemofarm koncern a.d. Vršac (HMFR), AIK banka a.d. Niš (AIKB), Metalac a.d. Gornji Milanovac (MTLC), Imlek a.d. Beograd (IMLK), Soja protein a.d. Bečej (SJPT), Tehnogas a.d. Beograd (TGAS).

3.2. Calculation

For each security from the sample we take the closing price at the end of each month. First we calculate the monthly return for each security. This is the percentage return that would be

earned by an investor who bought the security at the end of a particular month $t-1$ and sold it at the end of the following month. For month t and security A, monthly return r_{At} is defined as:

$$r_{At} = \ln\left(\frac{P_{A,t}}{P_{A,t-1}}\right). \tag{11}$$

We note two things about this return calculation. First, we are using the continuously compounded return on the security. An alternative would be to use the discrete return, $\frac{P_{A,t}}{P_{A,t-1}}-1$. Using the continuously compounded return assumes that $P_t = P_{t-1}e^{r_t}$, where r_t is the rate of return during the period $(t-1,t)$. Suppose that $r_1, r_2, ..., r_{12}$ are the returns for 12 periods (a period could be a month or it could be a year), than the price of the security at the end of the 12 periods will be $P_{12} = P_0 e^{r_1 + r_2 + ... + r_{12}}$. This representation of prices and returns allows us to assume that the average periodic return is $r = (r_1 + r_2 + ... + r_{12})/12$. Since we wish to assume that the return data for the 12 periods represent the distribution of the returns for the coming period, it follows that the continuously compounded return is the appropriate return measure, and not the discretely compounded return.

Second, we are calculating the price return of the share. Had the share paid a dividend in month t, the total return would have been $r_{At} = \ln\left(\frac{P_{At} + Div_t}{P_{A,t-1}}\right)$. As it is usual, we ignore dividends.

Looking for the optimal portfolio, we solved the problem (8)-(9) by programming in MATLAB.

3.3. Results

We calculated ten efficient portfolios, separately for each observed market. The results of the efficient portfolios calculations are given in the tables 1-5. The range of solutions is given from the lowest to the highest possible monthly return, with a weight of shares in the portfolio which lies on the efficient frontier and their monthly risk and return.

Table 1. Efficient portfolios for Bosnia and Herzegovina

Expected return (%)	Semi-St. Devp.	BHTSR	JPESR	JPEMR	BSNLR	ENISR	ABSBRK2	HDGSR	PITZRK1
0,9558	3,6813	0,4312	0,0663	0,0000	0,0000	0,0000	0,0000	0,0000	0,5026
1,3525	3,7239	0,5090	0,0909	0,0000	0,0000	0,0000	0,0152	0,0000	0,3850
1,7493	3,7967	0,5101	0,1021	0,0000	0,0307	0,0000	0,0653	0,0000	0,2918
2,1460	3,8724	0,4901	0,1022	0,0000	0,0937	0,0000	0,1106	0,0000	0,2034
2,5427	3,9506	0,4612	0,0971	0,0000	0,1682	0,0000	0,1555	0,0000	0,1181
2,9394	4,0329	0,4297	0,0902	0,0000	0,2467	0,0000	0,1998	0,0000	0,0335
3,3362	4,1737	0,3143	0,0085	0,0314	0,3969	0,0000	0,2489	0,0000	0,0000
3,7329	4,6696	0,2210	0,0000	0,1489	0,1865	0,0000	0,4437	0,0000	0,0000
4,1296	5,3968	0,0994	0,0000	0,2449	0,0000	0,0000	0,6558	0,0000	0,0000
4,5263	6,5435	0,0000	0,0000	0,0000	0,0000	0,0000	1,0000	0,0000	0,0000

Source: Calculated according to http://217.199.131.154/DesktopDefault.aspx

The range of expected return for Bosnia and Herzegovina is rather low: from 0.9558 to 4.5263, while in the same time there is no such low level of risk values. It can be seen that two shares from SASX-10 index (ENISR and HDGSR) are not included in any efficient portfolio. The portfolio with the highest return rate and the highest risk (the extreme right point on the efficient frontier) consists of only one share which is ABSBRK2 with the expected return rate of 4.5263% and the risk, i.e. the semi standard deviation of 6.5435%.

Table 2. Efficient portfolios for Bulgaria

Expected return (%)	Semi-St. Devp.	SLB	ALB	BLABT	BTH	ZLP	PET	SFARM	BIOV	NEOH	CCB	ORGH
1,6973	4,2229	0,0000	0,0000	0,2277	0,0511	0,1159	0,6052	0,0000	0,0000	0,0000	0,0000	0,0000
2,1869	4,3800	0,0000	0,0000	0,1194	0,0694	0,1908	0,6203	0,0000	0,0000	0,0000	0,0000	0,0000
2,6766	4,7784	0,0000	0,0000	0,0000	0,0935	0,2613	0,6453	0,0000	0,0000	0,0000	0,0000	0,0000
3,1662	5,2860	0,0000	0,0000	0,0000	0,0491	0,3755	0,5754	0,0000	0,0000	0,0000	0,0000	0,0000
3,6559	5,8918	0,0000	0,0000	0,0000	0,0031	0,4887	0,5082	0,0000	0,0000	0,0000	0,0000	0,0000
4,1455	6,6024	0,0000	0,0000	0,0000	0,0000	0,6050	0,3671	0,0000	0,0000	0,0000	0,0280	0,0000
4,6352	7,3835	0,0000	0,0000	0,0000	0,0000	0,7001	0,2176	0,0000	0,0000	0,0000	0,0823	0,0000
5,1248	8,2086	0,0000	0,0000	0,0000	0,0000	0,7953	0,0681	0,0000	0,0000	0,0000	0,1366	0,0000
5,6144	9,6230	0,0000	0,0000	0,0000	0,0000	0,7100	0,0000	0,0000	0,0000	0,2900	0,0000	0,0000
6,1041	15,0166	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	1,0000	0,0000	0,0000

Source: Calculated according to www.bse-sofia.bg

The range of expected return for Bulgaria is also low: from 1.6973 to 6.1041, while the risk is extremely high: from 4.229 to 15.0166. Here it can be seen that even five SOFIX's shares (SLB, ALB, SFARM, BIOV and ORGH) are not included in any efficient portfolio. The extreme right point on the efficient frontier consists of one share: NEOH with the expected return rate of 6.1041% and the risk of 15.0166%.

Table 3. Efficient portfolios for Croatia

Expected return (%)	Semi-St. Devp.	PLVA-R-A	ADRS-P-A	PODR-R-A	ATPL-R-A	KOEI-RA	DLKV-R-A	KRAS-R-A	PLAG-R-A	ISTT-R-A	PBZ-R-A
2,7389	2,8823	0,1708	0,0316	0,0000	0,0000	0,0000	0,0000	0,7976	0,0000	0,0000	0,0000
3,6059	3,2857	0,0852	0,0000	0,0000	0,0321	0,0874	0,0000	0,7394	0,0000	0,0559	0,0000
4,4729	4,0378	0,0127	0,0000	0,0000	0,0705	0,1808	0,0000	0,5468	0,0000	0,1892	0,0000
5,3399	4,8874	0,0000	0,0000	0,0000	0,1260	0,3001	0,0000	0,3503	0,0000	0,2236	0,0000
6,2069	5,7878	0,0000	0,0000	0,0000	0,2057	0,3920	0,0000	0,2289	0,0000	0,1733	0,0000
7,0739	6,7038	0,0000	0,0000	0,0000	0,2861	0,4828	0,0000	0,1099	0,0000	0,1212	0,0000
7,9409	7,6298	0,0000	0,0000	0,0000	0,3675	0,5734	0,0000	0,0000	0,0000	0,0591	0,0000
8,8079	8,6451	0,0000	0,0000	0,0000	0,5491	0,4509	0,0000	0,0000	0,0000	0,0000	0,0000
9,6749	9,9659	0,0000	0,0000	0,0000	0,7746	0,2254	0,0000	0,0000	0,0000	0,0000	0,0000
10,5419	11,5132	0,0000	0,0000	0,0000	1,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

Source: Calculated according to www.zse.hr

There are much better conditions and much more possibilities for investors on Croatia's capital market. Namely, the range of expected return for Croatia is: from 2.7389 to 10.5419, while the risk ranges between 2.8823 to 11.5132. There are also four CROBEX's shares which haven't found place in any efficient portfolio (PODR-R-A, DLKV-R-A, PLAG-R-A, PBZ-R-A). The portfolio with the highest return rate and the highest risk is portfolio with one share, ATPL-R-A.

Table 4. Efficient portfolios for Romania

Expected return (%)	Semi-St. Devp.	ATB	AZO	BRD	OLT	RBR	SNP	TBM	TLV	IMP	RRC
2,6027	5,7864	0,0323	0,0268	0,0173	0,0000	0,0000	0,0085	0,3725	0,0000	0,1000	0,4425
3,1430	5,7995	0,1249	0,0000	0,0243	0,0000	0,0000	0,0052	0,3528	0,0000	0,0940	0,3988
3,6832	5,8531	0,2187	0,0000	0,0338	0,0000	0,0000	0,0000	0,3410	0,0000	0,0712	0,3352
4,2235	5,9603	0,3032	0,0000	0,0506	0,0000	0,0000	0,0000	0,3274	0,0000	0,0356	0,2832
4,7637	6,1144	0,3257	0,0000	0,1287	0,0000	0,0000	0,0000	0,3017	0,0000	0,0157	0,2282
5,3039	6,2964	0,3478	0,0000	0,2088	0,0000	0,0000	0,0000	0,2740	0,0000	0,0000	0,1694
5,8442	6,5065	0,3686	0,0000	0,2966	0,0000	0,0000	0,0000	0,2386	0,0000	0,0000	0,0962
6,3844	6,7432	0,3884	0,0000	0,3852	0,0000	0,0000	0,0000	0,2034	0,0000	0,0000	0,0230
6,9247	7,0968	0,4222	0,0000	0,5337	0,0000	0,0000	0,0000	0,0442	0,0000	0,0000	0,0000
7,4649	8,2391	0,0000	0,0000	1,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000

Source: Calculated according to www.bvb.ro

On Romania's capital market there is small interval of risk varying: [5.7864, 8.2391], in compare with expected return interval [2.6027, 7.4649]. The three BEX's shares (OLT, RBR, TLB) aren't included in any efficient portfolio. The share which makes portfolio on the extreme right point of the efficient frontier is BRD (with the expected return rate of 7.4649% and the risk of 8.2391%).

Table 5. Efficient portfolios for Serbia

Expected return (%)	Semi-St. Devp.	HMFR	AIKB	MTLC	IMLK	SJPT	TGAS
5,6738	5,2923	0,6287	0,0000	0,0000	0,0000	0,1717	0,1997
6,1118	5,3169	0,5469	0,0000	0,0000	0,0000	0,2545	0,1986
6,5497	5,3970	0,4639	0,0000	0,0000	0,0000	0,3366	0,1995
6,9877	5,5526	0,3771	0,0000	0,0000	0,0000	0,4157	0,2072
7,4256	5,7794	0,2910	0,0000	0,0000	0,0000	0,4953	0,2136
7,8636	6,0814	0,2127	0,0000	0,0000	0,0000	0,5809	0,2063
8,3016	6,4563	0,1344	0,0000	0,0000	0,0000	0,6665	0,1990
8,7395	6,8921	0,0562	0,0000	0,0000	0,0000	0,7521	0,1917
9,1775	7,3807	0,0000	0,0000	0,0000	0,0000	0,8546	0,1454
9,6154	7,9552	0,0000	0,0000	0,0000	0,0000	1,0000	0,0000

Source: Calculated according to www.belex.co.yu

In Serbia, from six BELEX15 index shares for which exists data in observed period, there are only three (HMFR, SJPT, TGAS) included in almost all efficient portfolios. Those securities are so attractive and here we can find the most favourable relation between return, [5.6738, 9.6154], and risk, [5.2923, 7.9552].

The next figure shows efficient frontiers for all five observed markets. It can be emphasized that because of relative increases and the method of risk and return calculation (expressed as percentages) it is possible to show all curves in the same space.

All of the portfolios that lie on the efficient frontier are optimal portfolios in the sense of return and risk. The investor's choice of the portfolio will depend on its individual utility function, i.e. of the level of his risk tolerance.
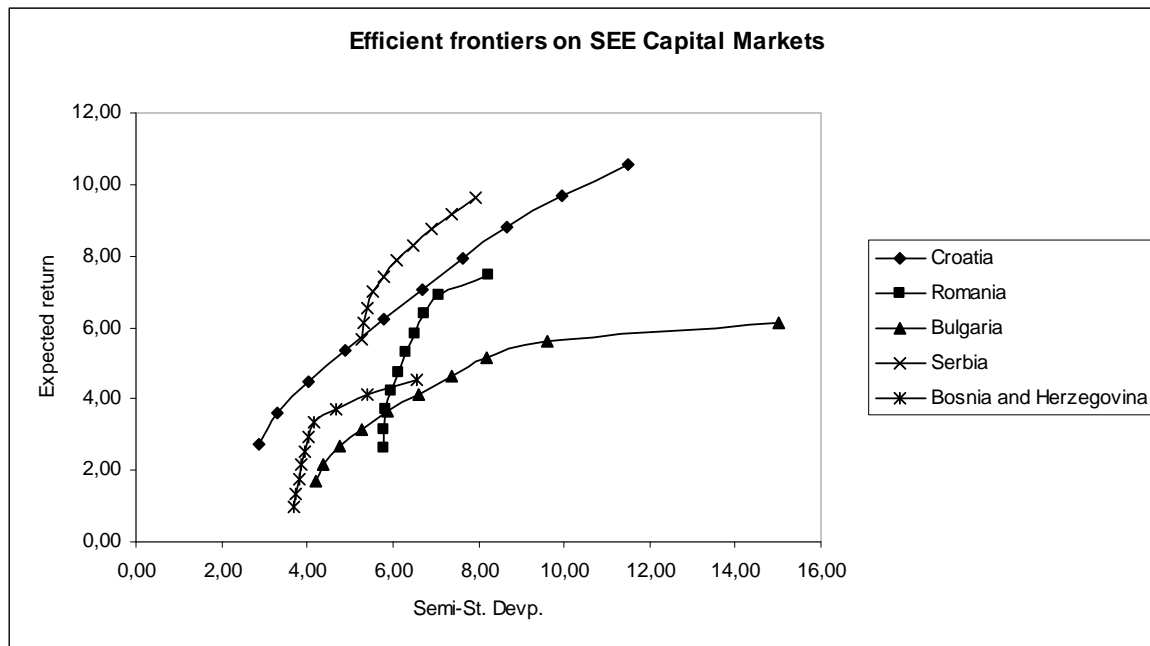
Figure 1.   Efficient frontiers on transitional SEE capital markets

According to the shape and position of efficient frontiers from Figure 1 the main findings can be summarized as follows.

In Serbia's capital market there is relatively small interval of risk and for such level of risk there are the highest values of expected return, in comparison with all other observed countries. Croatia offers wider range of expected returns with wider range of risk.

Romania is in the middle of this capital market ranking with small vary of risk, as it is obvious on Figure 1.

The new Sarajevo Stock Exchange offers small values of return and small values of risk. Bulgaria efficient frontier shows also small values of return but with much more higher values of risk.

The position of each country is in accordance with their economic-financial environment (Tomoć-Plazibat et al., 2006). The exception is Serbia's market where it can be seen very active and to investors very attractive capital market, in spite of its economic conditions.

4. CONCLUSION

For the first time, the efficient frontiers on the capital markets of the group of the South Eastern European (SEE) transition countries have been calculated and compared, using alternative (appropriate) risk measure. The data in this study don't satisfy the hypothesis of normality which is assumption for applying well known Markowitz theory. Because of asymmetric data distributions, in order to calculate valid curves, the lower semi-variance is used as risk measure. The whole procedure is done by programming in MATLAB.

Although new and transitional, the observed capital markets satisfy all the conditions of modern markets and stock exchanges and so the modern portfolio theory can be correctly applied.

From the mathematical-statistical point of view the method gives correct results. The deviation of results is possible in cases where different share sample or/and different observed period are taken. The period taken in to consideration is reasonable if we look at existence and stability conditions on observed capital markets.

The obtained results show the conditions on SEE capital markets and possibilities for investors in accordance with their preferences and risk aversion. In that sense Serbia's and Croatia's capital markets are the most attractive in region. Such results are expected in the case of Croatia because of its leading economic-financial position. The attractiveness of Serbia can be explained with young increasing capital market where the prices of shares have the constant rise tendency. Such situation gives a big possibility of earnings for potential investors.

Of course, the investor's choice depends on its individual utility function. In that sense the obtained efficient frontiers for all observed countries give possibilities for a wide range of interested investors, for those with risk aversion as well as for those who prefer higher earnings with higher risk.

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Abstract

Relationship between the depth of the financial system and economic growth, investment, poverty and other indicators of the level of development of a country is a long established fact in economic theory[1]. Only in last ten years, however, did the theory and empirical analysis clearly define the causal relationship between financial development and economic growth. Just as the development of a financial system is a significant determinant of an overall level of development of a country, so is the successful financial reform a significant determinant of success of a transition process. Financial reform consists of several elements, one of which is financial liberalisation. This paper will deal with some of the issues of financial liberalisation in the transition countries in South and East Europe (SEE).

All sectors of a modern economy fundamentally depend on financial services sector. Healthy and stable financial sector, supported by strong macroeconomic policy and prudential system, is a basis for achieving sustainable development of an economy in transition. Financial reform based on deepening of financial sector, according to many studies in itself is a source of growth (see analysis provided in [Claessens, 2005]). Liberalisation, or internationalisation of this sector based on international disciplines is an integral part of this reform. The first part of this paper analyses regulatory framework for international trade in financial services within auspices of the World Trade Organisation (WTO), with a special attention paid to the open issues including the scope of prudential measures and capital mobility limitations. The second part of the paper deals with concrete financial liberalisation commitments undertaken by the original WTO members in SEE and the newly acceded SEE member countries. The last part of the paper provides a quantitative analysis of these commitments by means of measurement of the liberalisation indices in banking sector in SEE countries.

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[1] See [Francois and Schuknecht, 1999], or [Fink, Mattoo and Rathindran, 2001]. Overview of the empirical results is provided in [Claessens, 2005].

1. INTERNATIONAL REGULATORY FRAMEWORK FOR TRADE IN FINANCIAL SERVICES

1.1. Regulatory framework for trade in services

The last decade saw a major boost in global trade in services, mainly due to the introduction of new technologies facilitating the supply of services (e.g. satellite communication), the opening of services' monopolies in many countries (e.g. voice telephony) and gradual liberalisation of previously restricted sectors like banking and insurance, combined with changes in consumer preferences therein. Services now account for close to 70% of production and employment in the OECD area [OECD, 2001], while estimates show that total measurable trade in services represents close to a fifth of total trade in goods and services [WTO, 2001]. This boost in services' activities on an international level demanded regulation through multilateral disciplines similar to GATT (General Agreement on Tariffs and Trade).

The General Agreement on Trade in Services (GATS) was negotiated during the Uruguay Round (1986-1994) and is one of the major achievements of those negotiations. The reason is that the GATS is the first and only set of multilateral legally-enforceable rules that govern international trade in services. Similar to the GATT, GATS encompasses the following three elements: general rules and disciplines, Annexes to regulate sector specificities and the Schedule of Specific Commitments that show specific obligations a particular Member has undertaken in the particular services' sector in order to facilitate market access therein. Unlike GATT, GATS has a specific fourth element - a list of MFN exemptions. This list shows the sectors in which the Member is *temporarily* not going to apply the Most-Favoured Nation (MFN) principle of non-discrimination (those are temporary withdrawals of the MFN principles).

As in the case of trade in goods, measures restricting trade in services actually decrease the real GDP level. Due to the specificities of the modes of supply of the services, liberalisation of particular services sectors demands liberal and transparent domestic regulatory framework that enables higher mobility of production factors, service providers and consumers. Thus, compared to the goods sector, in the case of services the scope of impact of international trade rules on domestic regulation is higher by far.

Goods and services fundamentally differ in more than one way. As opposed to goods, many services are not tangible, visible, or continuous and their production and consumption processes more often than not run simultaneously. It is this aspect of services that crucially determines the mode of trade in services and represents the reason that international trade in services often cannot occur without allowing for mobility of production factors – capital and labour. It is the former of these that will be further discussed in this paper and in particular in the section titled Open Issues further below.

The generally accepted definition of trade in services, as provided in Article 1, Paragraph 2 of the GATS, recognises this specific aspect of services and defines trade in services by way of four services supply modes[2]:

- *Mode 1: Cross-border Supply* - where services are delivered across the country border, the service provider is resident abroad while the consumer remains in the home

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[2] Estimates show that in the total world trade in services in 1997, around 40% is the share allocated to these two modes of supply: cross-border transactions and commercial presence modes; remaining 20% share consists mainly of the consumption abroad, while services supplied through natural persons were found to be statistically insignificant. [Karsenty, 1999]

country (for example, when financial credit is extended or insurance policy purchased from a bank/insurance company located abroad);

- *Mode 2: Consumption Abroad* - this is where the consumer travels into the country in which the services are delivered by the foreign services supplier (for example, tourism; education in a foreign country; or repair of a ship in a foreign country, when it is only the service consumer's property that travels abroad);

- *Mode 3: Commercial Presence* - where a service supplier of one country supplies a service in another country by establishing, through foreign investment, a commercial presence in that country (e.g., commercial presence of foreign banks or insurance companies);

- *Mode 4: Presence of Natural Persons* - this applies to the temporary movement of individuals (which are natural, not legal persons as is the case in the previous mode) and arises where a service is delivered in a foreign market; these individuals may be independent service providers (such as medical doctors), or employed with a service-supply company.

The level of the foreign trade in services liberalisation is weighed against the restrictions of *Market Access* (MA) or *National Treatment* (NT) for each of the four service supply modes and for every service sector. Concrete liberalisation commitments of a WTO member country, defined against this framework, are entered into that country's Schedule of Specific Commitments. Same as with trade in goods, where every country has its Schedule of Concessions as an integral part of GATT (defining the maximum tariffs to which it commits), every country also has its Schedule of Specific Commitments (hereinafter: the Schedule) related to GATS, through which it commits to a particular level of liberalisation in trade in services.

1.2. Specific provisions regarding financial services

The basic GATS rules outlined above apply to financial services trade, same as for other service sectors. However, recognising particularity of this sector, both as basic input for all other sectors and its importance for financial viability and stability of an economy, specific rules were developed to regulate only this sector. As a result this set of rules under GATS became "to date, WTO GATS which sets rules for international trade in financial services and thus affects the financial sector and its stability. remains the only multilaterally agreed, binding, and legally enforceable framework related to the financial sector"[3]. That is why in this paper we have performed both descriptive and empirical comparative analysis of the degree of liberalisation in financial services sector that countries in this region have committed themselves to. To begin with, we shall describe the mechanisms and outline the basic provisions of this regulatory framework with respect to financial services.

GATS rules that apply specifically to financial services are found in several documents. These are:

- GATS Articles XI, XII and footnote 8 to Article XVI.

  Article XI provides that 1) *payments and current transactions* shall be allowed in relation to service sectors and modes of supply where the country has undertaken commitments in its Schedule, and 2) that the country will not impose restrictions on

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[3] [Kireyev, 2002] p. 3.

capital transactions that may be inconsistent with the country's specific commitments[4].

Article XII provides that country may temporarily maintain restrictions on payments and transfers related to its specific commitments in the event of serious balance-of-payments (BOP) and external financial difficulties, or threat thereof. These are to be applied only under certain conditions (to be reviewed by the WTO Committee on BOP Restrictions) and in accordance with the IMF Articles of Agreement.

Footnote 8 to Article XVI (MA) further provides that if a country has undertaken Market Access (MA) commitment in its Schedule under modes 1 or 3 and if a capital transaction is an essential part of that service, such capital transaction shall be allowed[5].

- *Annex on Financial Services* (hereinafter: the Annex) further defines scope of application of GATS in financial services sector. The Annex defines which governmental services and measures shall not be subject to GATS rules. It provides that GATS rules do not apply to: (a) the activities of the Central Bank (hereinafter: CB) or other monetary authority in relation to monetary or foreign exchange policy not subject to GATS, and (b) the activities of any public entity performed for the account, with the guarantee or using financial resources of the Government, unless the it allows that those activities be provided by a financial service supplier(s) in competition with such public entities.

  The Annex also provides that prudential measures do not fall under the GATS disciplines ("prudential carve-out")[6]. However, these measures may not be used as a means for avoiding commitments undertaken under GATS. Furthermore, the Annex offers definition and classification of financial services (this classification extends the one previously provided by [WTO, 1991]) .

- *Second and Fifth Protocol* are results of the subsequent rounds of negotiations in financial services and provide for inclusion of new financial services as well as a higher level of commitments of member countries (these came to force as of September 1, 1996 and March 1, 1999, respectively).

- *Understanding on Commitments in Financial Services* (hereinafter: the Understanding) provides further levels of commitments in the financial services sector. Although its application is not mandatory, most newly acceded members were heavily pressed and accepted it[7], as did most of the SECE (South East and Central European) countries that were original members. The Understanding offers a wide array of provisions that present significant liberalisation commitments on behalf of the signatories thereof. It is divided into four sections: A, B, C and D. Part A of the Understanding provides that countries shall not undertake any new measures that are contrary to the provisions contained therein. Parts B and C specify MA and NT commitments respectively, while part D supplies the definitions.

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[4] Exceptions are to be allowed only under the auspices of the IMF.

[5] Although this applies to all services, it is of particular importance for financial services sector since undertaking MA commitments in this sector for modes 1 and 3 is often not feasible without allowing the underlying capital transaction.

[6] This provision is quite vague in many aspects as shall be discussed in more length below. However, it provides appropriate procedures for recognition of prudential measures of member courtiers.

[7] Due to the wide scope of the Understanding it is usual that countries apply it partially, this fact being entered in their Schedule.

In part B the Understanding relates to MA commitments and states that the monopoly rights must be listed in the schedule and also provides that the countries shall endeavour to eliminate them or further reduce their scope. This provision also applies to other governmental services as defined in the Annex on Financial Services and summarised above under (b) (i.e. not including monetary authority). Part B further provides that modes 1 and 2 shall be allowed for the provision of the following services:

- insurance of goods in international transit,

- insurance of goods, the vehicle that transports the goods and the liabilities arising therefrom, in commercial aviation and maritime shipping, and

- reinsurance, retrocession and the services auxiliary to insurance.

It also provides that mode 1 shall be allowed for provision and transfer of financial information, financial data processing etc., as well as advisory, intermediation and other auxiliary financial services, while mode 2 shall be allowed for all banking and other financial services (that includes all financial services except for insurance).

With regard to mode 3, the Understanding provides that the country shall allow financial services providers of another member to establish its commercial presence[8] and to expand within its territory including purchase of the existing enterprises (allowing for adequate terms, conditions and procedures for authorization thereof). Established commercial presence of another member shall be allowed to provide new financial services[9], as well as transfer and processing of financial information and transfer (importation) of equipment necessary for business operations of a financial services supplier. With regard to mode 4 the Understanding provides that the temporary entry shall be allowed to the necessary personnel.

Part C of the Understanding relates to NT commitments and provides that established commercial presence of another member shall have access on NT basis to publicly-operated payment and clearing systems, official funding and refinancing facilities available (not including the lender of last resort facilities), as well as to membership of any professional bodies, associations etc.

1.3. Open issues

The above regulatory framework is by no way perfect, but several issues are of particular importance for further analysis of the commitments undertaken towards liberalisation of financial services sector. These are: (i) Distinction between modes of supply, (ii) Scope of prudential measures, and (iii) Capital mobility issues.

(i)   *Distinction between modes of supply.* One of main issues regarding definitions and disciplines defined in GATS is the unclear distinction between modes 1 and 2. This issue was identified and analysed in the WTO forums and also in the document [WTO, 2001a] which examines different specificities of the financial services sector. The distinction between the two modes of supply is particularly unclear in the case of

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[8] Part D defines "commercial presence" to include wholly- or partly-owned subsidiaries, joint ventures, partnerships, sole proprietorships, franchising operations, branches, agencies, representative offices or other organizations.

[9] Part D defines new financial service as a service of a financial nature, related to existing and new products or the manner of their delivery, that is not supplied on the member's territory but is supplied in the territory of another Member.

financial services sector. While the mode 1 occurs when the consumer is at the domestic territory and mode 2 when he goes abroad (in both cases the service provider is abroad) now it is often the case that physical presence of the service consumer is no longer necessary for the service provision, due to the modern telecommunication technology available. It is often hard to tell how the particular service was provided, i.e. by which mode. This presents problems both for scheduling the commitments in the acceding countries and with understanding of the commitments already undertaken by members in further negotiations. This issue was discussed as early as the negotiations on financial services which ended in December 1997 (see details in annexes to [WTO, 2001a]). It was recognised that the proposed solution to this problem should not interfere with the commitments already undertaken. The proposed, partial solution discussed was the adoption of a non-binding headnote and a member that feels that such explanation is necessary may include the note in its Schedule. Models of such headnote can be found in the attachments to the [WTO, 2001a].

However, the issue of distinction between the modes of supply may also be found with regard to modes 1 and 3. One study [Kono and Schuknecht, 1998] finds that in financial services sector most important modes of supply are modes 1 and 3, and in some cases the distinction between the two is quite vague. For example, a foreign bank credit that was aranged over the phone presents mode 1 of supply, while the same credit arranged through domestic branch[10] or subsidiary of a foreign bank shal be deemed mode 3.

(ii)   *Scope of prudential measures.* By virtue of the Annex on Financial Services prudential measures are allowed (so-called "prudential carve-out") and are not subject to GATS disciplines, provided they shall not be used as a means of avoiding commitments under GATS and the country's Schedule. The WTO legal documents do not provide a precise definition and explanation of what prudential measures comprise of. From the information available it could be surmised that they include not only measures to ensure stability and integrity of the financial system, but also measures to protect investors, depositors, etc.[11]. No further explanation is offered, which is acceptable since this should not be subject of the WTO[12] but other international fora, such as Bank for International Settlements (BIS), IMF or International Organisation of Securities Commissions (IOSCO).

However, while prudential measures are not scheduled in the countries' Schedule still the extent of their restrictiveness may significanlty undermine the level of commitment (i.e. libersalisation) of individual members. This imposes significant reservations regarding the quality of information avaliable in the Schedule, with regard to financial services. For example, quite stringent licensing procedures for new entry on the market, that may be defended on the grounds of market instablity thus for prudential reasons, may be significant impediment to new entry. To our knowledge this is still an open issue that requires defining disciplines and means to measure the degree of restrictiveness of the underlying prudential measures. Still, in theory[13] any measure can be challenged under a dispute settlement mechanism to be a disguised MA or NT limitation (thus in breach of section 2 (a) of the Annex).

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[10] Branches in this paper, same as in the WTO definitions, are dependent legal entities of a parent company situated abroad.

[11] See GATS Annex on Financial Services, section 2 (a).

[12] See for example [Key, 2003], page 12.

[13] In practice no such or similar dispute was ever undertaken.

(iii) *Capital mobility issues.* With regard to financial services sector, capital mobility issues, namely capital and current transactions[14] are of particular importance. It goes without saying that without opening the current account mode 1 is generally not feasible. That may be the reason many SEE countries keep this mode of supply closed. Regarding capital transactions these generally have an impact on all modes of supply. This has been discussed in more detail in [Kireyev, 2002], who has developped a table for measurement of the strength of influence of capital transactions on praticular types of services in financial services sector, and for all 4 modes of supply[15]. This table show that capital transactions are general of minor influence for all tupes of insurance services for modes 1 and 2 (except for mode 1 in life insurance services where it is of strong significance). Regarding banking and securities trading the capital flows have majror significance for alll types of services for modes 1 and 2 (except for financial leasing in mode 1). Commercial presence, that is mode 3, in most cases does not have such strong significance[16]. Thus in most cases liberalisation of financial services is not feasible without liberalising the capital and current account. Consequently, the existing capital mobility limitations should be directly or indirectly listed in the country's Schedule in as far as they impact the financial sector commitments. This we shall examine further in the following section.

2. COMMITMENTS IN FINANCIAL SERVICES IN SEE COUNTRIES

2.1. Structure of commitments pertaining to financial services

It is common knowledge that the new WTO members usually make much higher level of commitment, as compared to the original members[17]. This comes as a consequence not only of the way the negotiations for accession are structured but also of the WTO principle of the progressive liberalisation. In financial services sector in particular there was a pronounced increase of commitments in all members regarding the scope of sectoral coverage and the level of commitments, due to the post-Uruguay rounds of negotiations that were dedicated exclusively to the financial services. Level of commitment in financial services in SECE countries, as concluded in [Mattoo, 1999], is much higher compared to other members: "5 out of the 7 (SECE) countries, accounting for 79 per cent of regional participant's GDP, already represent the most liberal markets as far as commercial presence is concerned"[18]. This part of the paper shall examine these findings further on the pool of the SEE countries, and also by including two acceding countries, Montenegro and Serbia.

We have analysed commitments in financial services in 7 countries, WTO members, in the SEE region: Albania, Bulgaria, Croatia, Hungary, Macedonia, Romania and Slovenia. In the first stage, a preliminary analysis of the structure of WTO commitments pertaining to financial sector was carried out. Results of this analysis are summarised in the Table 1 below.

Table 1 shows that MFN exemptions are not present except in the case of Hungary. As already mentioned in the first part of our paper, exemptions from the Most Favoured Nation

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[14] It should be mentioned that the distinction between the two is not provided in any WTO document.

[15] [Kireyev, 2002] p.13.

[16] The establishment of commercial presence, of course, requires inflow of capital (FDI), but such transaction is normally not forbidden.

[17] This information can even be found on the WTO site, www.wto.org.

[18] [Mattoo, 1999] p. 17

Treatment (MFN exemptions) are temporarily allowed[19], have to be scheduled in the List of MFN Exemptions of a member country, and are to be eliminated within certain period of time[20]. However, in the sectors and within the scope of application of such exemption, the member country cannot make any commitments in its Schedule.

Table 1.   Structure of WTO commitments in SEE: MFN exemptions and horizontal limitations relevant for financial services sector

Country	WTO membership date		MFN exemptions in fin. services sector	Horizontal limitations pertaining to fin. services
Albania	September 8,	2000	None	- for mode 4, and - for capital mobility
Bulgaria	December 1,	1996	None	- for mode 4, and - for capital mobility
Croatia	November 30,	2000	None	- for mode 4, and - for mode 3
Hungary	January 1,	1995	Reciprocity condition	- for mode 4
Macedonia, FYR	April 4,	2003	None	- for mode 4
Romania	January 1,	1995	None	- for mode 4, and - for mode 3
Slovenia	July 30,	1995	None	- for mode 4, and - for mode 3

Hungary kept the MFN exemption which provides reciprocity condition for commercial presence (mode 3) of other WTO members. The original, much stricter formulation of this exemption that was adopted upon its membership was subsequently watered down. Today it provides that Hungary *may* invoke reciprocity condition for commitments under mode 3. It follows that the reciprocity condition is in fact subject to the discretionary decision making which is considered to be a very restrictive limitation in itself. If in the meantime "autonomous liberalisation"[21] occurred and this limitation was relaxed, still Hungary did not bind itself for such liberalisation in its Schedule. Therefore, in our analysis we shall take this limitation under consideration.

Analysis of horizontal limitations of the SEE countries pertaining to financial services reveals three types of limitations:

- Mode 4 limitations with regard to movement of persons (e.g. residency requirements for managers or Board members, etc.) which are present in every observed country. These, as well as all other limitations on mode 4 will not be subject of further analysis as they were not considered to be representative indications for liberalisation of the financial services sector;

- Mode 3 limitations are present in 3 countries in our pool, requiring a certain form of legal entry etc. These will be subject of further analysis;

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[19] According to GATS Article II.

[20] According to GATS Annex on Article II (MFN) Exemptions.

[21] Many countries in fact apply a more liberal regime than the one actually bound in their Schedule. If a more liberal regulatory regime was adopted in a particular economy after the date of adoption of the country's Schedule, for many reasons most members would not change their Schedule. In WTO this is often referred to as "autonomous liberalisation".

- Some countries have listed their limitations on capital movement (current and capital transactions) in the horizontal section. These will also comprise the limitations to be analysed further in more detail.

To conclude the first stage, further analysis shall take into account one MFN exemption of Hungary, mode 3 limitations in the horizontal section as well as the current and capital transactions limitations listed horizontally. Mode 4 limitations and residency or other requirements upon employees that may be scheduled under mode 3 shall not be subject of further analysis.

2.2. Descriptive analysis of WTO commitments in financial services

Following the analysis of the structure of commitments in financial services sector, the second stage in our analysis is to explore further the depth of commitments in the sector. For this purpose, in accordance with the classification set out in the GATS Annex on financial services (see on www.wto.org), commitments were analysed separately for the following financial services sub-sectors:

- Insurance and insurance related services, i.e. sub-sectors (i) to (iv) according to part 5 (a) of the Annex;

- Banking services, which comprise sub-sectors (v) to (ix) in 5.(a) of the Annex;

- Other financial services (securities, money broking asset management etc), or sub-sectors (x) to (xvi) of Annex 5(a).

Results of this analysis are presented in Tables 2 and 3.

Since banking services will be subject of further quantitative analysis, they are analysed separately, according to sub-sectors (v) acceptance of deposits and other repayable funds from the public and (vi) lending of all types including consumer credit, mortgage credit, factoring and financing of commercial transactions. These are summarised in Table 3.

The level of commitment in the tables was sorted and outlined in the following manner[22]:

- No commitment, entry "*no c.*," is the situation where the country has not undertaken any commitment ("unbound" entry in the Schedule) or the limitations are such that in effect there is almost no market access (which are often referred to as "almost *no c.*");

- Full commitment, entry "*full c.*," is the situation where the country applies no (or practically no) limitations for market access. In case of mode 3 this includes branching[23], otherwise the situation may be categorised as "almost *full c.*";

- In between the two extremes are conditions where there are some limitations. In such cases we would usually summarily state the most stringent of the limitations applicable. For example, in mode 3 the most usual limitation is "legal form of entry" which means that the country requires a certain type of domestic legal incorporation (e.g. joint-stock company) in order to achieve domestic market access through mode 3 (that also implies that no branches are allowed).

The results of the descriptive analysis presented in the Tables 2 and 3 show that the original members have lower level of commitment as compared to the newly-acceded member

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[22] This categorisation was developed in accordance with [WTO, 2001b].

[23] See footnote 10.

countries. This hypothesis will be tested further in the quantitative analysis of the banking sector.

The analysis also shows that the level of commitment is higher in the case of banking, compared to insurance and other financial services. This is fully in line with the findings of [OECD, 2003] which conclude that in all SEE countries "financial services are dominated by the banking sector".

Limitations on capital mobility are present in every country in the pool. In some countries, like Albania and Bulgaria, they are listed horizontally, while some countries have listed them in the financial services section of the Schedule (Croatia, Macedonia and Romania). Although Hungary and Slovenia did not enter any capital mobility limitations in their schedules, they keep most of the modes of supply relating to such restrictions closed. This allows them to apply any capital mobility restrictions that may, or may not be part of their respective regulatory regime[24].

Insurance sectors are more closed than other sectors. Except for an overall acceptance of the insurance-related part of the Understanding (see explanation in the previous section) pertaining to insurance of goods in transit and in maritime and aviation, other sub-sectors of life and non-life insurance seem to be mostly closed. The exception is reinsurance and retrocession which are, as a rule, kept open in most cases.

Securities trade and other financial services seem to be the least developed. Albania even entered that it will take commitments in this sector upon adoption of adequate prudential regulation for mode 1. *Almost all countries in the pool made no commitments for the first two modes*[25], while mode 3 was kept fully open only in Albania and Croatia. Bulgaria, Macedonia and Romania have some limitations on mode 3 (legal form of entry) while the cases of Slovenia and Hungary are more complicated.

Regarding mode 3, special cases are Slovenia and Hungary, two of the three original members in our country pool. As already discussed above Hungary applies MFN exemption in financial services in the form of reciprocity condition that may be applied on WTO members for market access through commercial presence. In case of Slovenia, there is a potential discretionary licensing issue. In its Schedule it is listed that, when considering issuing a license Bank of Slovenia shall take into account "the national economic preferences for certain banking activities". Discretionary licensing is considered to be a most restrictive measure that is contrary to the spirit and basic principles of WTO. In Slovenia there is also a NT limitation that provides that foreigners may not participate in privatisation of state-owned insurance companies. This restriction is to be removed upon the "adoption of new Law on Banking."

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[24] The overall level of commitment in these countries is lower compared to others, but this was not an issue since both countries were original members, who did not go through the process of negotiating accession.

[25] So, although we find, same as [Mattoo, 1999] a high level of liberalisation in mode 3, modes 1 and 2 seem to be closed. The same will be found for banking services in the analysis below.

Table 2. Commitments undertaken in financial services sector for modes 1, 2, and 3, including the capital mobility limitations

Country	Capital mobility	Insurance	Other (securities etc.)	Remarks
Albania	Horizontal limitations for capital outflow, to be removed by 2010	Mode 1 almost *no c.* for life and non-life except ♦, otherwise *full .c.* ♠	Mode 1 *no c.* (until development of appropriate prudential regulation, 2010 at the latest), otherwise almost *full c.*	Although *full .c.* scheduled for securities trade in mode 2, additional commitment provides ♣.
Bulgaria	Limitations on current and capital transactions scheduled in the horizontal section	Significant limitations including on capital movement, except for ♦, exclusive providers of mandatory insurance ♠	Modes 1 and 2 *no c.*, Mode 3 limitation on legal form of entry	MA and NT limitations on legal form of entry in horizontal section; rather <u>limited</u> application of ♦
Croatia	Significant limitations scheduled in financial services section	Mode 1 almost *no c.* for life and non-life except ♦, otherwise *full c.* ♠	Mode 1 *no c.*, mode 2 limitations on capital movement, mode 3 *full c.*	Horizontal limitation on mode 3 branches are not independent, their rights are those of the parent company.
Hungary♥	Not listed!	Mode 1 almost *no c* .for life and non-life except ♦, mode 3 MFN exemption (reciprocity condition)	*No c.* by virtue of MFN exemption (reciprocity condition)	Legal form of entry and no branches scheduled horizontally.
Macedonia, FYR	Listed in financial services sector	Mode 1 almost *no c.* for life and non-life except ♦, mode 2 *full c.*, mode 3 limitation on legal form of entry, branches allowed from 2008	Mode 1 almost *no c.*, mode 2 limitations on capital movement, mode 3 limitation on legal form of entry, branches allowed from 2008	Mode 3 limitations on legal form of entry scheduled horizontally.
Romania♥	Some limitations listed in financial services sector	Modes 1 and 2 almost *no c.*, mode 3 only as a joint venture with a domestic person	Mode 1 almost *no c.*, mode 2 limitations on capital movement, mode 3 limitations on legal form no branches	Financial leasing was not included in the Schedule at all.
Slovenia♥		Modes 1 and 2 almost *no c.* for life and non-life except ♦, mode 3 limitations on foreign share in new companies, *no c.* for the existing, ♣	Modes 1 and 2 almost *no c.*, mode 3 potential discretionary licensing for foreign share ♣	

"No c".	no commitment, meaning market closed (although in effect it may be open, the country did not make any obligation to keep it so)
"Full c."	full commitment, meaning fully open market without any limitations
Mode 1	cross-border supply, consumer stays in home country, service provider is abroad and only the service crosses the border
Mode 2	consumption abroad, consumer travels abroad to purchase the service from the foreign provider there
Mode 3	commercial presence, foreign legal person establishes in home country to provide the service to consumer who stays in the home country

♠　　　branches allowed

♦　　　commitments are <u>entirely or partially</u> based on the Understanding, relating to insurance of good in international transit, as well as for maritime or aviation transport of goods including the vehicle thereof

♥　　　original members

♣　　　the country made commitment to liberalise in the future (with adoption of new law etc.) but this liberalisation was not included in the Schedule
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N.B:　　　- mode 4 limitations were not taken into account and neither were residency requirements for employees that were listed as mode 3 limitations in some Schedules
　　　　　- separate provision of insurance and banking services was not viewed as limitation since most countries observe that, and so does the EU

Table 3. MA commitments in SEE in banking for modes 1, 2, and 3

	Acceptance of deposits	*Lending of all types*
Albania	Mode 1 *no c.*, mode 2 limitations on capital outflow (until 2010 the latest), mode 3 *full c.*	Mode 1 *no c.*, mode 2 limitations on capital outflow (until 2010 the latest), mode 3 *full c.*
Bulgaria	Modes 1 and 2 *no c.*, mode 3 limitation on legal form	Modes 1 and 2 *no c.*, mode 3 limitation on legal form
Croatia	Mode 1 *no c.* mode 2 only under license which may be obtained from CB in some cases, mode 3 *full c.*	Mode 1 *full c.*, mode 2 limitation on capital mobility, mode 3 *full c.*
Hungary	Modes 1 and 2 *no c.*, mode 3 limitation on legal form, no branches, state ownership and 25% + 1 vote in one bank, plus reciprocity condition	Modes 1 and 2 *no c.*, mode 3 limitation on legal form, no branches, state ownership and 25% + 1 vote in one bank, plus reciprocity condition
Macedonia, FYR	Modes 1 and 2 almost *no c.*, mode 3 limitations on legal form, branches allowed from 2008	Modes 1 and 2 almost *no c.*, mode 3 limitations on legal form, branches allowed from 2008
Romania	Mode 1 *full c.*, mode 2 CB licensing, Mode 3 *full c.*	Mode 1 *full c.*, mode 2 CB licensing, Mode 3 *full c.*
Slovenia	Modes 1 and 2 *no c.*, mode 3 potential discretionary licensing for foreign participation to be liberalised "upon adoption of new Law on banks"	Modes 1 and 2 *no c.*, mode 3 potential discretionary licensing for foreign participation to be liberalised "upon adoption of new Law on banks"

CB　　　- Central Bank of a country; "*no c.*" and "*full c.*" have the same meaning as in Table 2 above.

2.3. Quantitative analysis of SEE countries' commitments in the banking sector

The commitments in the banking sector were used to calculate the liberalisation indices applying the methodology developed in [Mattoo, 1999]. The scope of analysis is limited to two sub-sectors in banking: (v) acceptance of deposits and other repayable funds from the public and (vi) lending of all types including consumer credit, mortgage credit, factoring and financing of commercial transactions[26]. The scope is further limited to only first three modes of supply, same as outlined in Table 3.

Nine SEE countries are subject of this study. Other than the above analysed 7 countries, listed in Table 3, the country pool will also include two countries that are in the process of WTO accession: Serbia and Montenegro. Information on limitations applicable for each of the 7 WTO member countries are gathered from their GATS Schedules, in line with the above analysis and in accordance with the model set out in [Mattoo, 1999].

Regarding Montenegro and Serbia, since they are not members (hence do not have a Schedule) the liberalisation indices were calculated on the basis of their *currently applied regulatory regime*. This means that, without changing the current regime these countries cannot have a higher liberalisation index, on one hand. On the other hand, it is possible and quite probable that during negotiations for accession they may be expected to accept a higher level of liberalisation compared to their current regime, meaning that the WTO membership may result in a higher liberalisation index (effected by the regulatory change, of course). In short, results for Montenegro and Serbia are not directly comparable to those of other countries if the currently applied regime in those countries is significantly different to the commitments in their respective Schedules. As we conclude below, this is only the case with the original members, which is the reason that we have always indicated the original members in our tables.

The liberalisation index created by Mattoo runs in the interval [0,1]. The situation where there are no restrictions on a particular service or mode of supply is considered the situation of full liberalisation and the index value is 1. On the other hand, if no commitments were taken for the studied service and supply mode, the index value is 0. Between these two extremes there are many levels of "partial" liberalisation, defined by particular commitments. Thus, in the case of mode 3 many countries impose restrictions on legal form of entry - e.g., it is required that a domestic entity be founded (no business can be conducted through affiliate offices) and the index value is 0.75.

After we assigned the indices for each of the two types of services and for each of the three supply modes investigated, what we needed was a suitable means (e.g., weighting scheme) to aggregate the data. The weighting scheme, which is supposed to define the relative significance of each of the studied service categories, was calculated based on USA foreign trade data[27]. The findings of our analysis are shown in Table 4.

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[26] As categorised in the GATS Annex 5(a).

[27] The main reason for deciding on this weighting scheme was the fact that the USA keeps separate statistics for each of the services supply modes. Since the same weighting scheme was used for all countries, the value of the weight does not distort individual countries' compared data.

The analysis revealed several open issues that were consequence either of the inadequately articulated Schedules or regulatory framework provided by GATS:

- A specific case was presented by Bulgaria which scheduled a possibility of exclusive service providers in banking, for "budgetarily financed public institutions". However, having in mind Item 1. of the GATS Annex on Financial Services we find that this limitation should not fall under GATS disciplines.

- In Croatian Schedule in horizontal part it is listed that branches are "not independent legal entities" and that their rights stem from the rights of the parent company. First of all this is contrary to the WTO definition of a branch. Secondly, this raises the question whether limitations in the Schedule that apply to the parent company also apply to the (domestic) branch. For example, in case of banking this may imply that domestic branches of foreign banks should observe the capital mobility limitations. That in itself contradicts the fully open mode 3 for banking.

- A particular curiosity is presented by the Hungarian Schedule, complicated by the already discussed MFN exemption. In the top of the financial services section this Schedule states that commitments in modes 1 and 2 apply only to transaction listed in the parts B 3 a) and b) and B 4 a) and b) of the Understanding on commitments in financial services (these are all about insurance of goods in transit, maritime and aviation transport). This precludes undertaking the commitments in modes 1 and 2 for banking services. For acceptance of deposits and lending services, on the other hand, the Schedule lists no commitments. This is a direct contradiction. Finally we decided, in accordance with the analysis supplied in [Mattoo, 1999], to accept the MFN exemption as the relevant one, while the commitments listed under modes 1 and 2 we surmised are listed in order to be applied once the MFN exemption is revoked[28].

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[28] Annex on Article II Exemptions (i.e. MFN exemptions) provides that the exeisting limitations be reviewed 5 years after the date of membership. It also states that all exemptions, in principle, shall cease 10 years after the membership date. As in every similar formulation, the issue is what does the term „in principle" mean. Hungary amended its MFN exemption after financial services negotiations that ended in December 1997. This amendment came into force on February 26, 1998. It is not clear if it may be revoked, in principle, in 2008.

Table 4. Liberalisation indices for banking

	Acceptance of Deposits	*Lending of all Types*
Hungary ♠	0.21	0.19
Serbia	*0.21*	*0.19*
Slovenia ♠	0.43	0.63
Bulgaria ♠	0.64	0.56
Macedonia, FYR	0.64	0.61
Montenegro	*0.79*	*0.81*
Albania	0.87	0.78
Croatia	0.85	0.98
Romania	0.99	0.98

♠   - Original WTO members

Analysis performed in Table 3 and quantified in Table 4 shows that in banking sector most limitations are present in case of mode 1, followed by mode 2. This indicates the countries' careful approach towards liberalisation that may endanger the stability of the financial system. For inwards movement of capital these countries mainly keep their markets open (in transition the capital is the most limited resource) – only Bulgaria, Hungary and Serbia keep it closed (or rather decided not to make any commtiments in the case of the two former). Regarding cros-border lending (mode 1) only Croatia, Montenegro, Romania and Slovenia have fully liberal regimes.

The highest impact on the liberalisation score is that of the mode 3[29]. Albania, Croatia and Romania have the most liberal regimes in this mode, followed by Bulgaria, Macedonia and Montenegro which have minor restrictions. Proverbial Slovenia and Hungary as the lowest are here joined by Serbia which has discretionary licensing for MA in mode 3.

The liberalisation indices presented in Table 4 show that Serbia is the most restrictive country regarding the banking sector openness. The same value has Hungary which, *de facto*, applies a higher level of liberalisation[30]. Next is Slovenia and then Bulgaria. All these (except for Serbia which is not a WTO member yet) are original WTO members. Following them is Macedonia which has already committed ro future liberalistation in 2008, when it will reach the levels of the rest of the countries in the Table 4 that are all (except for Montenegro) new WTO members who underwent serious negotiations in order to achieve the membership status. Montenegro's quite liberal regime in banking

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[29] Notwithstanding because it has the highest weight in the calculation of the index.

[30] Only because of the MFN exemption is the Hungary's score so low. This limitation is, however, applied only for commercial presence and not to all the countries. On the other hand, Serbia, *de facto*, applies a lower level of liberalisation since its National Bank *de facto* did not approve a single new banking license in the last two years.

allows that the country's negotiations in this sector need not complicate its WTO membership process.nor jeopardise its financial stability since its system is already adapted to the higher liberalisation levels necessary for achieiving the membership status. Serbia, however, needs to undergo a huge liberalisation process that may have farfetching consequences on its system.

3. CONCLUSIONS

Our descriptive an quantitative analysis of the financial services' liberalisation commitments in the SEE countries shows that:

1. Original members have a far lower level of liberalisation compared to the other WTO members. This hypothesis applies in a country pool as small as 7 countries in one region.

2. The level and depth of commitments is correlated to the level of the particular sector development, except for the original members. This is the consequence of the way that Schedules are defined (so-called "positive listing" approach, for further discussion see [McGuire, 1998]) which allows that countries may have a more liberal regime than the one in their Schedules. Since their inscription, further liberalisation steps were effected only in those countries that committed to liberalise in their Schedules[31].

3. Previous discussion leads to conclusion that the Schedules are the more realistic illustration of the applied regulatory regime, the later the country became the WTO member.

4. Consequently, the prospective members have to undergo a serious liberalisation in order to fulfil the demands put before them during the accession negotiations. For example, it is usual that the Working Group for negotiating accession of a certain country consists of the neighbouring member-countries who would normally demand that the new member apply at least the same level of liberalisation as they themselves committed to in the Schedule.

5. Therefore it is to be expected that both Serbia and Montenegro will be faced with such situation. Montenegrin high level of liberalisation in financial services sector allows the possibility that, perhaps with some obligations to future liberalisation, it may accede under the current regime. However, in case of Serbia, it is apparent that significant liberalisation will be demanded. Such a change would definitely have a considerable impact on its financial system, with possibly adverse effects on its financial stability or the threats thereof.

6. This brings us to another issue specific to the financial services sector – relation between financial liberalisation and financial stability. Without going into this ever vivid discussion, we will surmise that it necessarily dwindles towards finding the answer to the question how to liberalise in order to maximise the positive effects and

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[31] As the Tables 2 and 3 show several such commitments to future liberalisation exist in our country pool. Such examples are Macedonia which has committed to allow branches of insurance companies by 2008 or Slovenia which has committed to allow cross-border consumer credits after adoption of new Law on Foreign Exchange.

minimise the negative ones (including the shocks to the financial system). The main issue regarding financial stability is in fact related to unwanted capital movement ("capital reversals") and jumps in cross-border capital flows. For that reason it is important to understand the relationship between liberalisation of the financial sector and the capital account[32]. We find that the WTO framework in fact provides enough flexibility in this respect. Our analysis, where commitments on mode 1 are few and on mode 2 rather cautious[33], certainly proves this point.

7. We are of opinion that the decisive impact on successful financial reform (financial liberalisation being just one aspect thereof) is that of development of adequate institutional capacities to provide stabilising effect both directly and indirectly through affecting the capital mobility. In a transition country it is the state that has to play the crucial role for successful institutional development. The state has to define the regulatory framework and disciplines, form adequate supervision procedures and bodies and above all enable *a transparent* financial reform process. It is of vital importance that the state finds the right measure regarding its involvement in this process - to provide enough incentives for sector development and apply enough caution not to endanger the sector stability. It is often perceived that in practice the state has propensity to over regulate thus smothering further financial development. This conclusion also stems from our empirical analysis where countries show that only under (outside) pressure are they ready to liberalise.

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[32] See [Kireyev, 2002].

[33] Both relate to current and capital transactions as explained in section titled "Open issues".

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NORTH-SOUTH R&D SPILLOVERS AND TRADE POLICY IN MARKETS WITH LEADERS, TACIT COLLUSION AND ENDOGENOUS INTENSITY OF COMPETITION

− FULL PAPER NOT PUBLISHED −

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EXTENDED ABSTRACT

It is well known that R&D spillovers hamper domestic firms' incentives to invest in innovations and thus have likely adverse effects for domestic welfare. However, when tacit collusion between foreign (Southern) and domestic (Northern) firms is likely, and when market competition is endogenously induced by unit costs asymmetries, R&D spillovers may encourage monopoly pricing and therefore may have an additional detrimental impact on domestic welfare, especially on consumer surplus.

In imperfectly competitive markets tariff policy can alleviate the negative consequences of breaching intellectual property rights by Southern firms on a Northern country's social welfare. Yet, the overall positive effect of tariff protection is achieved at the consumers' expense. These results have been derived in set-ups that model imperfect competition using either Bertrand or Cournot type of competition or, to much lesser extent, Stackelberg leadership. In addition, the initial asymmetries between the Northern and Southern firms in

these models have no impact on the nature of market conduct. However, there is convincing evidence that the presence of firm asymmetries might affect market conduct in two related ways. First, the nature or toughness of market competition might be endogenously induced by the level of cost, capacity or capital asymmetry that exists among firms. Second, firm differences may induce a firm or a group of firms to assume the role of a leader in the market. It has been shown that with asymmetric information the better informed firm can become a leader, and with switching costs the firm with the biggest share of loyal consumers can become a leader. Also in the presence of cost asymmetries the most cost efficient firms have incentives to assume a leadership role in the market.

When firm asymmetries determine market conduct and market leadership, positive tariffs (as well as some other non-tariff barriers like imposing standards, regulations, etc. that confer a better position to domestic firms and have similar effects on foreign firms) may play additional roles to the ones in traditional models of imperfect competition so their impact on consumers, firms and social welfare might be different than in standard models. We show that this is indeed the case using a set-up in which a group of firms play the role of a leader and firm asymmetries determine the strength of market competition. Our results suggest that tariffs (or non-tariff barriers), set to protect domestic firms, may depress the market price and increase consumer surplus.

We introduce asymmetries as differences between firms' cost efficiency levels. We model a situation in which both domestic and foreign firms supply a domestic market. Domestic (Northern) firms are more cost efficient due to their ability to innovate. Foreign (Southern) firms do not have such an ability but they copy, albeit imperfectly, the results of Northern R&D. Domestic prices are determined in a model (supergame) where domestic firms are leaders and the degree of firm cost asymmetries determines the intensity and the nature of competition. We assume that domestic firms tacitly collude and coordinate on the price charged in the market out of all incentive-compatible prices. It is then also incentive-compatible for foreign firms (if they are active in the market at all) to follow this price. If they do not, the domestic firms retaliate and switch to the non-cooperative outcome from then onwards.

To protect domestic economy against the negative impacts of R&D spillovers, the Northern government might introduce tariff duties or impose other non-tariff barriers. The government's decision is based on a social welfare function that generally assigns different weights to the three components. Recent EU experts' discussion on competition policy stresses the importance of consumer well-being. Therefore, we allow for the weight attached to consumer surplus to be higher than the corresponding weights of domestic firms' profits and tariff revenue (when trade policy appears in the form of tariff). The situation in which all of the components of social welfare have equal weights is a special case in our specification.

We show that when prices are determined in such a set-up, the government protection may eliminate the threat of monopoly pricing and preserve or raise consumer's welfare relative to free trade. Due to the trade policy, the unit cost differential between domestic and foreign firms increases, triggering a more aggressive pricing strategy. Put into international trade jargon, there is a tremendous improvement in terms of trade so that even domestic consumers benefit from protection. Since trade protection has a positive effect on consumers, the government is more likely to protect its markets when it assigns a higher weight to consumer surplus (this result is stronger for non-tariff barriers where the concern for tariff rent extraction is not an issue). This is in contrast with perfectly competitive environments or in

imperfectly competitive ones in which firms compete *à la* Cournot or Bertrand where the higher the importance the government assigns to the consumer surplus, the less likely it is to enact tariff protection.

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INSTITUTION AND UNEMPLOYMENT:
CROATIA AND POLAND COMPARED

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1. INTRODUCTION – THE ROLE OF INSTITIUTIONS ON THE LABOR MARKET

The role of institutions[1] on the labor market has been increasingly drawing attention of scholars since 1980. Considerable literature has been developed that looks into the relationship between unemployment and labor-market institutions (e.g. Nickell, 1997; Elmeskov, Martin and Scarpetta, 1998; Blanchard and Wolfers, 2000; Belot and van Ours, 2002).

The necessity to include institutional approach to the analysis of unemployment is best supported by Blanchard (2002) who argues that the labor market will not function properly without institutions. That is to say, the labor markets are not perfectly competitive thus facing imperfections in terms of problems related to information asymmetry, market power and market mechanisms. Information asymmetry relates to the difficulty of employers to fully monitor the efforts and skills workers invest in their work while workers find it hard to properly evaluate their contribution to the productivity of the firm and know what their wage should be. Information problems often complicate the matching between workers and jobs available, especially when it comes to skills. Also, imperfections are reflected in market

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[1] Institutions are generally defined as humanly defined constraints that structure human interaction and are self-imposed. In another words, they are the rules of game in a society (North, 2003). However, many authors include in their definitions of institutions also organizations, procedures and regulatory framework. In the most recent literature, the institutions are defined in a broad sense connecting various measures of institutional quality with the outcomes of development from various aspects and from the viewpoint of various scientific disciplines. We, too, will treat institutions in the most comprehensive way.

power whereby if employers dominate labor relations wages can be significantly reduced and *vice versa*. Furthermore, market mechanisms cannot provide enough insurance against unemployment risk given the aggregate nature of such risk.

Introducing rigidities in the labor market is both supported and opposed. Employment protection laws, generous unemployment insurance, greater unionization, increased labor taxes and bargaining coordination across firms and industries are associated with higher unemployment as shown in number of studies (see, for example, OECD 2002). On the other hand, the history has shown that the labor market needs regulation for the purpose of ensuring efficiency and equity. The valuable lesson comes from the time of the Great Depression that too much inequality, economic insecurity and jeopardized possibility of people to access the basic needs (e.g. food, health, safety, housing and education) can adversely impact economic efficiency. In order for people to be economically productive requires certain level of income, which in turn requires employment and insurance against job loss, whereby labor market institutions play an important role (Baker et al, 2004: 3-4). The key issue is how to find an optimal mix of institutions that will reconciliation the two opposing needs – a need for flexibility and a need of coordination between workers and employers in order to promote employment and thus economic growth.

According to Cazes (2002) the relationship between unemployment and labor market institutions is mainly an empirical question and it is rather difficult to measure the degree of flexibility of labor markets. Some aspects of market (in)flexibility can be easily quantified, e.g. level of unemployment schemes, weight of tax burden and the like. Contrary to that, some aspects are more qualitative in nature, particularly when it comes to employment protection and measuring is difficult or impossible to conduct, e.g. the willingness of labor courts to entertain law suits by fired workers or interpretation of the notion "just cause" for termination.

Having these constraints in mind, the paper considers a set of institutional features and compares unemployment in Croatia and Poland on the basis of selected institutions that characterized labor markets of both countries. The labor market performance in Croatia and Poland is given in the section 2 wherein the employment and unemployment have been reviewed in both countries. Particular emphasis is given to the unemployment profile. Section 3 offers a brief overview of the selected market institutions. The attention is given to the active and passive labor market policies, employment protection legislation and unemployment insurance schemes. Croatian and Polish experience with the legislative and institutional development of labor markets is provided in the section 4. The section 5 ends the paper with concluding remarks.

2. LABOR MARKET PERFORMANCE IN CROATIA AND POLAND

2.1. Employment and unemployment – brief overview

It is worth to remind that both Croatia and Poland share the same experience of transition process to market economy and political democracy. Polish accession to the European Union (EU) on May 1[st], 2004 has marked down the end of transition, while Croatia is still tackling with some reforms of administrative, legal and economic nature in order to remove weakness that prevents it to access the EU. Still, the previous socio-economic regime have impacted the

institutions on labor market which reflects in current attempts of both countries to make their labor markets less rigid which has been one of the most evident heritage of previous socio-economic system.

In the socialist or centrally-planned economy, as Croatian and Poland economy had before, the official unemployment rate was negligible. Everyone who wanted to work could obtain a job. Certainly, the situation regarding labor markets was not ideal in both countries; disequilibrium, overemployment, a surplus of vacancies compared with the number of job-seekers were some of their main characteristics. For example, Rutkowski (1990) estimated that hidden or latent unemployment in Poland in the late 1980s was even for 25 percents of total employment.

Transition reforms that seized both countries (directed to solving long-standing structural imbalances under the socialist regime), the Homeland war in Croatia, inadequate macroeconomic policy and the decrease in the demand for the products (in the former Soviet countries and for Croatia also in the former Yugoslav republics) brought many problems, *inter alia*, reduction of output and increase in unemployment. Reduction of output in both countries at the beginning of the 1990s was followed by decrease in employment and increase in unemployment as well as in inactive individuals. Although output recovered in a few years and has started to growth, as is illustrated in Figure 1, the unemployment has kept standing on immensely high levels. These countries have thus been challenged with the difficult task of building efficient and effective mix of labor market institutions which will promote employment and sustained economic growth.
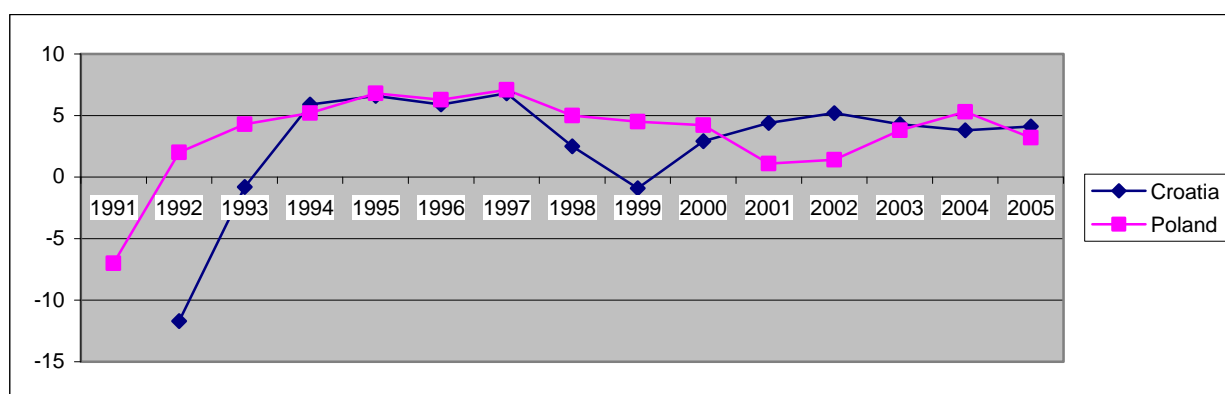
Figure 1.   GDP constant prices, annual percentage change

Source: http://www.imf.org/external/pubs/ft/weo/2006/01/data/ accessed November 24[th], 2006

Historic records of unemployment in both countries indicate similarity; although Poland has experienced a bigger unemployment (especially after 2002) as shown in Figure 2.[2]

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[2] It should be noted that there is a difference between two sources of data on unemployment: the Labor Force Survey (LFS, which is carried out twice a year by the Croatian Bureau of Statistics in Croatia and the Central Statistical Office in Poland) and the registers, maintained by the Croatian Employment Service (CES) in Croatia and the Local Labor Office (LLO) in Poland. These data differ from each other which are due to varied research methodologies, the definition of the unemployed and the reporting periods. Both data sets have its strengths and weaknesses (see Socha and Weisberg, 1999 for Poland and Rutkowski, 2003 for Croatia). In this paper we use the both, primarily because of availability of the data.
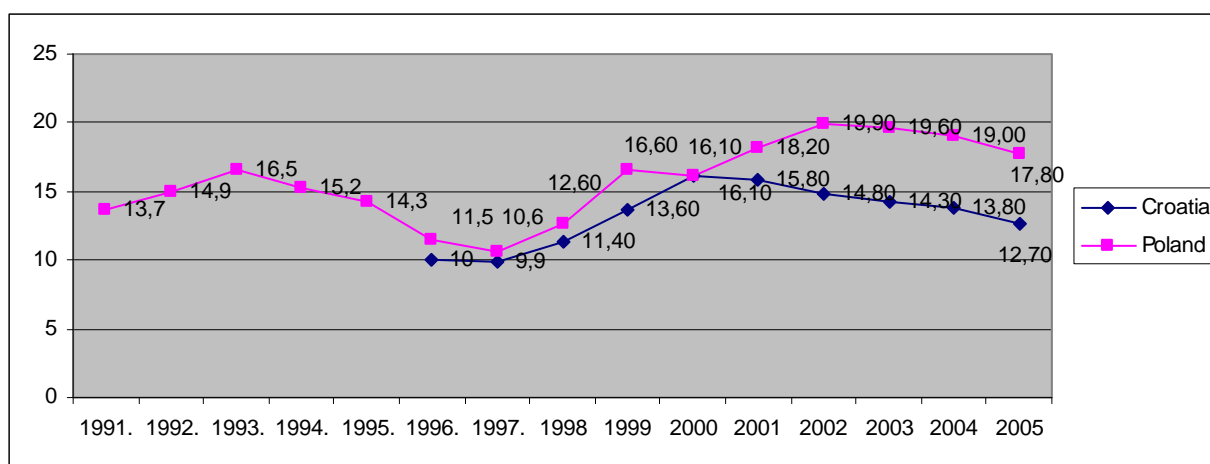
Figure 2. Unemployment rate (the Labor Force Survey, LFS, avg.)

Note: The LFS was conducted at the first time in Poland in 1992 and in Croatia only in 1996.
Source of data: for Croatia: Croatian National Bank (CNB, www.hnb.hr), for Poland: Central Statistical Office of Poland (www.stat.gov.pl), accessed November 24[th], 2006

While in Poland the significant increase in the registered unemployment stock started in 1998, when inflow into began to exceed outflow from unemployment, and accelerated after 1999, in Croatia, it increased since 1996, and accelerated after 1998 (Figure 2). There are two primary causes of the crisis in the Polish job market in those years (MEL, 2005). The first, external, cause was the 'demand shock', resulted partially because of the economic crisis in Russia, and the second, internal, cause was the so-called 'technological shock' that have made more people redundant rather than creating jobs.[3] Škare (2001) pointed out as the most important causes of unemployment in Croatia a bad macroeconomic policy and privatization, as well as the delaying in conducting structural reforms. Too big gap between the dynamic of job closing and new job creation is caused, according to him, by fast bankruptcies of big enterprises in public sector plus simultaneously development of private sector based on trade services but not on manufacturing.

Recently, labor market performance in both countries has been poor. Although positive trend, i.e. reduction of unemployment can be noticed, unemployment is still very high. In 2005 unemployment (LFS) was 12.7 percentages while at the same time in Poland it was 17.8 percentages. For the sake of comparison, unemployment rates in Czech Republic, Hungary and Slovenia were lower (7.9%, 7.2%, 6.6% respectively) at the same time.[4] While 2000 represent inflexible time-point after that unemployment rate in Croatia has started to decline, in Poland 2002 represent this time-point.

Although the sources usually indicate different level of economic activities in a country, this difference is not so high. But, this is not a case in Croatia. Because many people registered at the Employment Offices are not unemployed according to the ILO definition of unemployment (they either have a job in the informal sector, or are not actively looking for work, or are not available for work), registered data overestimate the real level of unemployment. Rutkowski (2003) pointed out that overestimated level of unemployment accounts almost 50% in Croatia.
[3] For explanation see Gardowski, http://www.eiro.eurofound.eu.int/2002/10/feature/pl0210110f.html, accessed November 20[th], 2006
[4] Source of data: www.wiiw.ac, accessed November 27[th], 2006

In the context of the search theory (McCall, 1970), the unemployment rate can be analyzed in terms of an inflow rate and an average duration of unemployment. Therefore, in this section we put our emphasis on them.

High unemployment combined with a low labor force participation rate (about 63%,)[5] implies low employment rate. In Croatia, employment rate hovers around 43.3 percentages, while in Poland around 51.5 percentages (Table 1). The employment rates in Poland are higher than in Croatia, but comparison with the EU-15 employment rates put employment rates in Croatia and Poland in real frame. Employment rates in Croatia and Poland are much lower than in EU-15 where employment rate is more than 64% and exhibits slow increasing tendency.

Low utilization of labor resources (mainly because of high unemployment among the oldest and the youngest workers) implies a loss in economic output and income, in social welfare and high social cost. It should be noted that reduction of unemployment neither in Croatia, nor in Poland has been followed by increase in employment rates. More dynamic economic activities and job creation is needed for this.

Table 1. Employment rate in period 1999-2005

	Employment rate		
	HR	**PL**	**EU-15**
1999	44.8	57.6	62.5
2000	42.6	55.0	63.4
2001	41.8	53.4	64.1
2002	43.3	51.5	64.2
2003	43.1	51.2	64.3
2004	43.5	51.7*	64.7*
2005	43.3	52.8	65.2

Source: for Croatia: CNB: www.hnb.hr , accessed November 24[th], 2006
　　　　for Poland: MEL, 2005 (for 2005:
　　　　http://www.finfacts.com/irelandbusinessnews/publish/article_10007244.shtml , accessed November 24[th], 2006
　　　　for EU-15 in 2005: Employment in Europe 2006, MEMO/06/404, Brussels, November 6[th], 2006
 Notes: * preliminary data

2.2. Unemployment profile

A special problem associated with high unemployment is derived from a discriminative character of unemployment.

- In Croatia[6], women are more sensitive to unemployment (in 2005, the share of unemployed women in total unemployment were 58.5 percentages). As in the EU, Poland has recently seen a closing of the gap between employment indices for women and for men. While in the most EU countries this resulted from increasing employment levels for women, in Poland it resulted from a decline in employment for men. In 2003-2004 unemployment rates for women and men were 18.1% and 19.7% respectively.[7]

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[5] Labor force participation rate = (Employed + Unemployed)/Population aged 15+. See for example http://www.ilo.org/public/english/employment/gems/eeo/download/croatia.pdf,
http://www.forfas.ie/ncc/reports/ncc_annual_05/ch03/ch03_01.html, accessed November 27[th], 2006
[6] Source of data: CES, 2005
[7] Source of data: MEAR, 2005 (unless stated otherwise)

- Unemployment hits harder the elderly people, the age of 50 and over (in Croatia, there was 22% of unemployed in this age category and their unemployment rose for 9.2% in 2005 compared to 2004; in Poland, there were 22.7% of unemployed persons aged 55+ in June 2005 compared to the same period, what is by 24.2 thousand persons more).

- Particularly evident is the youth unemployment (age of 15 to 25); the share of unemployed persons at that age was 20% in Croatia in 2005 which is a bit lower than, for example, in 2003, when the share of youth unemployed was 21.3%. In Poland, the youth unemployment was the highest in the EU-25 (36.9% in 2005).[8]
  It is well known that high youth unemployment often indicate labor market rigidities and strong barriers to entry (such as high hiring and firing costs).

- Regarding the educational attainment, the least share in the total unemployment is related to the persons with higher education, first college degree and vocational studies, as well as with college degree, academic title, masters and Ph.D. (6.8% in Croatia in 2005) while the greatest share of unemployment is related to the persons with secondary school background with the percentage of 63.8% in Croatia in 2005. The share of unemployed with primary and lower educational background was 29.5% in 2005.

- Low average education levels contribute to low mobility and low labor market activity. It is confirmed by statistics in many countries that unemployment rates are higher among the less educated, who also tend to remain unemployed longer.

- Majority of the unemployed (over half of the registered persons) are jobless for over one year, i.e. are long-term unemployed. For example, in 2005 this share rose to 58% compared to 59.2% in 2002 in Croatia. In addition:
  - duration of unemployment has been closely related to the educational attainment of persons; higher the level of educational attainment, less is their share in the long-term unemployment;
  - among long-term unemployed there are more women than men;
  - as the consequence of long-term unemployment, un-entrepreneurial mentality and poor availability of job opportunities, one detects the appearance of the so-called "discouraged worker" effect, i.e. workers cease their job search effort because their earlier attempts to find work have proved futile and thus they believe that no jobs are available.

- Spatial distribution of unemployment indicates significant regional imbalance. Differences in the unemployment rate across the Croatian counties with the highest and the lowest level of unemployment is particularly high, 24.3 percentage points, whereby the lowest unemployment is recorded in the city of Zagreb (7.8%) and the highest one in the Vukovarsko-srijemska county (32.1%). In Poland, the difference between the province with the highest registered unemployment rate (Warmisko-Mazurskie, 28%) and with the lowest one (Maopolskie, 14.0%) amounted less than in Croatia, i.e. 14% in June 2005.

Such a discriminative character of unemployment calls for an adequate reaction of the labor market institutions.

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[8] Source of data: http://www.eurofound.eu.int/ewco/surveys/EU0609SR01/EU0609SR01_2.htm

3. SELECTED LABOR MARKET INSTITUTIONS DEFINED

The institutional package in this paper refers mostly to the employment protection legislation, active labor market policies and unemployment insurance benefits in Croatia and Poland. The provisions of stated institutions significantly impact not only the access to employment but also the quality of employment.

Employment protection legislation refers to hiring and firing rules which are designed to protect the welfare of workers, but at the same time they are representing a cost for employers. Under the centrally planned economic system, labor markets in both Croatia and Poland have been extremely rigid and labor allocation inefficient. Structural adjustments of the transitional economies during 1990s have led to series of economic and social reforms that impacted national employment protection legislation calling for its moderation in order to provide workforce adjustment for firms. The guiding idea was to ensure flexibility and economic competitiveness of firms while providing employment protection of firms that goes in line with developed market economies.

Furthermore, both countries have introduced a wide range of active and passive labor market programs in order to relieve tensions created in the labor market as well as to provide income support. Active programs have been including job mediation, labor market training, public works, subsidized employment or mobility measures, while the passive programs encompassed unemployment insurance schemes, early retirements and the like.

Active labor market policies are those aiming to improve access to the labor market and jobs, job-related skills and labor market functioning. Croatia and Poland have been developing significantly these policies since the beginning of transition, which have covered a range of objectives and programs that are economic as well as social.[9]

Unemployment insurance benefits are available for workers who are unemployed through no fault of their own. They have been less generous in both countries over the time which is reflected in both duration of the benefit as well as in the eligibility rules.

Certainly, there are other institutions that significantly impact the movements of the labor markets, such as collective bargaining process by trade unions or taxes on labor. They will, however, remain the challenge for the future research and analysis of the labor markets.

Croatia has adopted a set of labor market institutions that broadly resemble those in Poland, i.e. EU countries. Both countries opted for an average institutional package providing neither the most nor the least flexible model.

4. LEGISLATIVE AND INSTITUTIONAL DEVELOPMENT OF THE LABOR MARKET: CROATIAN AND POLISH EXPERIENCE

As already mentioned, Croatia and Poland had a permanent full employment until the initiation of the transition to the market economy in early 1990s. In reality, both countries

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[9] An interesting chapter on the evolution of active market policies in OECD countries and their macroeconomic and microeconomic effects can be found via Internet at www.oecd.org/dataoecd/59/23/2485416.pdf, accessed November 30th, 2006

experienced the phenomenon of a hidden unemployment which was revealed in the transition process. Thus, the unemployment in Croatia and Poland had its specific sources and problems different from those common in market economies.[10] They were connected mainly with the restructuring of the economy. The Croatian and Polish governments reacted to this situation by development of adequate legislation and institutions.

Poland adopted the Act of December 29[th], 1989 on employment (Journal of Law, No. 75, item 446) and since 1990 the active employment policy has been implemented, however with different level of intensity. Croatia adopted the Labor Law in 1995 (Official Gazette, NN 38/1995) as well as it adopted measures of active employment policy which had been applied sporadically until 2002 when the government adopted new program of active employment policy.

4.1. Croatian legislative and institutional framework for the labor market

4.1.1. Legislation

The Labor Law in Croatia was originally adopted in 1995 and is in force since January 1[st], 1996. After its initiation, it has been amended twice (Official Gazette, NN 114/03 and Official Gazette, NN 142/03) and as such is in practice since January 2004. The Law has introduced the so-called civil concept of labor relations whereas this had previously been regarded as a status-related and legal concept. The Labor Law is a regulation of a general significance which regulates labor relations as a whole – regardless of whether the employer is a legal or physical person, except where they are regarded by the separate law. Amendments of the Labor Law were introduced with the idea to ensure greater flexibility in the labor relations; however their success in achieving flexibility remained only partial. This is due to the fact that each social partner has interpreted the flexibility in a different way – trade unions have primarily advocated the need for introducing functional flexibility while the Croatian Government and employers primarily focused on numerical flexibility and on the adaptation of employees to the real needs of employers, accompanied by the reduction costs through shortened dismissal notice periods and reduced severance pay (Marinković Drača, 2002).

The latest change of the Labor Law (Official Gazette, NN 142/03) created a certain hybrid situation in which not all types of work are recognized as an employment neither they are covered by the Labor Law. For example, Law on Mediation in Employment and Rights in Unemployment defines what is not considered unemployment while the Labor Law does not consider persons who work on temporary service contract employed even tough all compulsory contributions must be paid when such contract is in force (Crnković-Pozaić, 2005: 4-5).

Some of the most significant changes are related to the prolongation of the dismissal notice period for workers that are employed with the same employee for more than 20 years (extended period for two additional weeks), for workers that are age of 50 and more (extended period for an additional month). If the dismissal is caused by the worker misdemeanor, the dismissal notice is cut in half period of time. Dismissal wages for the dismissal of employee which is not caused by his/her misdemeanor are determined by the average of employee's net incomes in the last three months of employment whereby the height of it can be neither lower than 1/3 of stated incomes nor higher than 6 of such monthly incomes (except in the case

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[10] Compare H. Sopniewska, *Some Economic Problems of Unemployment in Poland in the Transition to Market Economy,* Working Papers of Institute of Finance, Warsaw, no 19/1991, p. 4-5.

when the collective agreements or other types of agreements do not state otherwise). Mass layoffs have been redefined whereby the employer who is intending to lay off at least 20 employees must provide a program for taking care the excess of workers 90 days before the date of the actual lay off. The employer is asked for the cooperation and consultation with the worker's council and regional Employment Service.

In a nutshell, the major effect of the new changes in the Labor Law are targeting at the reduction costs of "separation" between employee and employer which are formerly bared by the employer. The period in which the existing cadre in the firm can be replaced is reduced which is additional step in reducing costs and initiating structural changes. Furthermore, the social partners have recognized the direction in which the new regulation is heading and parallel they have recognized the need to compensate the employment safety with the social rights in the time of unemployment. This is evident in the increase rights for the unemployed persons through bigger financial compensation for unemployment, longer duration of right to use the financial compensation, one-term amount added to the financial compensation to the people who are potentially hard to re-employ (i.e. people who have long work period achieved or have been limited in their quest for new job by age).

Besides the Labor Law, the most significant law that regulates the Croatian labor market is the Law on Mediation in Employment and Rights in Unemployment adopted in 2002 (Official Gazette, NN 32/02) and amended twice since its initiation (Official Gazette, NN 1576/03 and Official Gazette, NN 2187/03). The general purpose of this law is to regulate mediation in employment, vocational guidance, educational activities aimed at increasing the labor employability, insurance in the event of unemployment, labor market active operations aimed at providing incentives for physical and professional mobility of labor and new employment and self-employment, sources of funds for operations of the Croatian Employment Service, as well as the organization, management and implementation of activities of the Croatian Employment Service. The main goals to be fulfilled with this law include following: (i) introduction of international standards in defining the notion of unemployment based upon the methodology of the International Labor Organization (ILO); (ii) initiation of competition in mediation on the labor market; (iii) reduction of bureaucratic formalities related to job placements that are especially burdening the employers; (iv) motivation of unemployed people to actively seek employment; (v) introducing information technology in business processes as well as (vi) creating greater responsibility of management system.

This law represents one of the most radical changes related to the functioning of the Croatian labor market. Besides the introduction of ILO methodology in defining unemployed persons, the law has introduced measures for people to actively seek themselves an employment. Also, the greater responsibility is placed on the Croatian Employment Service in following the behavior of unemployed persons, i.e. observing that the unemployed persons has gone through all steps in actively seeking a job which in turn represent a way of doing qualitative and successful mediation at the well being of the unemployed person. According to this law, preparation for employment (i.e. active job-seeking) includes activities such as professional orientation, introduction to active job-seeking methods and techniques, training for employment and professional rehabilitation. Other most significant result of this law is the introduction of the mediation in employment, which implies professional selection of unemployed and other persons whose professional and other working skills suit to the best of employers' needs: The mediation is conducted by the Croatian Employment Service as well as private agencies that have been registering since the adoption of this law. According to data, there have been eight new private agencies registered to provide mediation in

employment on the labor market particularly in the field of mediation for the jobs with higher incomes (Crnković-Pozaić, 2005: 34). The reduction of the administrative procedures for employers has been one of the most welcomed provisions of this law. The employers are no longer obliged to file a free job position in their company to the Croatian Employment Service and many have exercised that right as soon as possible. Even tough the number of the registered vacancies has dropped in all Croatian regions, the Croatian Bureau for Employment considered it as a challenge making the increase in mediation on the top of priority list. Thus, the Croatian Employment Service has come up with variety of new business processes that will increase the effectiveness and efficiency of it in job mediation.[11]

One of the most significant features of Croatian labor market is the low level of part-time employment outside the agriculture. Even the old Labor Law had foreseen the possibility to work part-time, however in most of the cases the employers had not used that possibility. This was due partly to the former Law on Pension Insurance (Official Gazette, NN 102/98) which had contained discouraging effect on the part-time employment. The amended *Law on Pension Insurance* (Official Gazette, NN 117/03) has altered this effect by enabling an age-based pension to an employee with part-time job once the female employee turns the age of 60 and male employee the age of 65 and if they are 15 years included in the pension scheme.

In addition to constant revision of the legislative framework trying to make labor market more flexible, the Croatian Government has been increasingly promoting measures for active employment policy which has been institutionalized in three programs. The first program dates back to 1998. Based upon the National Employment Strategy adopted by the House of Representatives of the Croatian National Parliament at the session held on February 27[th], 1998, the Croatian Employment Service carried out five programs for the purpose of reducing unemployment, promoting new vacancies, providing assistance in the reorganization of economy and synchronization between supply and demand on the labor market (see Bosanac and Barković, 2005). At the session held on January 10[th], 2002 the Government of the Republic of Croatia passed the second program – the Program for the Promotion of Employment that should influence the change of negative unemployment trends and the rise of employment of particular target groups. Currently, the Government conducts a third program - Croatian National Employment Action Plan that was adopted on December 2[nd], 2004.

The Croatian National Employment Action Plan is in the line with the European Employment Strategy (EES) launched by the Heads of State and Government at the Luxembourg Summit in December 1997. The EES aims at strengthening the coordination of national employment policies. Its main objective is to involve Member States in a series of common objectives and targets, focused on four pillars, namely employability, entrepreneurship, adaptability and equal opportunities[12]. EES focuses on the promotion of active employment policy measures. Measures encompassed in this plan include ten directives: (1) active and preventive measures for the unemployed and inactive; (2) encouragement of the job creation and entrepreneurship; (3) promotion of adaptability and mobility in the labor market; (4) promotion of development of human capital and lifelong learning; (5) increase of the labor supply and promotion of active aging; (6) strengthening gender equality; (7) promotion of labor integration of the disadvantaged people; (8) making work pay; (9) undeclared work and (10) reducing regional

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[11] For details see the official web site of the Croatian Employment Service at www.hzz.hr, accessed December 1[st], 2006

[12] More information can be found on the site: http://europa.eu/scadplus/leg/en/cha/c11318.htm, accessed December 1[st], 2006

differences.[13] Currently, the plan has modestly fulfilled its purpose of increasing the employment in the country. Employers evaluated the co-financing of employment as the most positive measure, particularly when it comes to co-financing of long-term unemployed, young people without previous work experience and elderly people. Co-financing of employment of people from the so called special group (invalids, Croatian war veterans, single-parents, etc.) has not been a successful in practice. Positive effects have been noticed with the measures targeting at educational programs for newly employed persons and employed persons with the purpose of maintaining job at current employer as well as measures targeting education of unemployed people for unknown employer. However, the business community warns that the implementation of active measures is burdened by the complex bureaucratic procedures and thus the measures remain mostly declarative in nature rather than practical.[14]

Passive measures for on the Croatian labor market are closely related to the Croatian policy on social protection which has been gone through series of changes. One of the particularly important aspects of passive measures is the unemployment insurance benefit that is regulated by the Law on Employment (Official Gazette, NN 59/96). In order to become a recipient of the unemployment benefit a person must be between ages 15 and 65 with 9 months of employment in the last 24 months. The insured must register with the Croatian Employment Service in the first 30 days of unemployment. There is no qualifying period for unemployed mothers caring for children younger than age 1. Persons whose employment ceased as a result of willful misconduct or by agreement with the employer are not entitled to unemployment benefits. Unemployed workers with 34 years (men) or 29 years (women) of employment are covered until they are reemployed; the required period of employment will rise to 35 years (men) or 30 years (women) in 2007. Benefits may be paid to women during pregnancy and until the child is age 1 if there is no entitlement to benefits under any other program. The benefit may be paid during temporary incapacity for work for up to 3 months. Unemployed persons of retirement age are also entitled to unemployment benefits until the minimum insurance coverage period for the old-age pension is satisfied, up to a maximum of 5 years. Lump-sum payment is paid to beneficiaries of the unemployment benefit who became unemployed because of the restructuring of their place of employment or because of unforeseen personal circumstances. The unemployment assistance is provided to unemployed persons who participate in vocational training. Reimbursement of traveling and removal costs is given in the case that costs occurred as a result of finding new employment and having to relocate away from the regular place of residence.

The unemployment benefit is equal to the average wage in the last 3 months. The benefit is payable for between 78 and 390 days, depending on the duration of previous employment. The minimum benefit is 887.20 kunas a month while the maximum benefit is 1,000 kunas a month. Depending on the duration of previous employment, a lump sum equal to 2, 4, or a maximum of 6 monthly unemployment benefits is paid. Unemployment assistance is 887.20 kunas a month is paid while the lump sum is paid for the reimbursement of traveling and removal costs.[15]

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[13] Detailed explanation of each measure can be viewed in Matković (2005).

[14] More detailed comment of the effects of measures by the director of the Croatian Association of Employers can be found in Poslovni tjednik, December 12th, 2006 available via Internet at http://www.poslovni.hr/29121.aspx

[15] Source of actual data: Social security Throughout the World: Europe, 2006 available via Internet at www.ssa.gov, accessed December 11th, 2006

4.1.2. Institutions

The following institutions related to the Croatian labor market are considered: the Ministry of Economy, Labor and Entrepreneurship, the Croatian Employment Service, the Committee for Monitoring Active Employment Policy Measures and the Fund for Development and employment.

- **Ministry of Economy, Labor and Entrepreneurship**

Ministry of Economy, Labor and Entrepreneurship consolidates three segments crucial for the quicker economic growth – economy, labor and entrepreneurship, of which the segment of employment and labor market is surely one of the most important. Taking into consideration Croatian efforts to join the EU, the Ministry is intensively focused on implementation of European standards in the labor market whereby it bears in mind the development and entrepreneurial needs of employers and principles of social dialogue. One of the most important goals of the policy in the labor market and employment segment is the increase of employment, because of which the Croatian National Employment Action Plan was adopted, which encompasses *inter alia* directives regarding the active employment measures necessary to contribute to more flexibility on the labor market.

- **Croatian Employment Service**

The Croatian Employment Service is a public institution owned by the Republic of Croatia and is a subject to regulations governing institutions unless otherwise stipulated by the Law. The central office of the Croatian Employment Service is seated in Zagreb while there are 22 regional offices and 94 local offices across the country. Some of the main tasks of the Croatian Employment Service include monitoring, analyzing and researching economic, social and other trends, the level of employment, new employment and the level of unemployment, and their mutual influences on each other, on the basis of which it proposes the measures for improvements in employment; keeping records of the unemployed and other persons, mediates in employment between employers and persons seeking job, monitors demand for workers and their employment, as well as cooperates with employers in this activity; organizing and implementing programs of professional orientation, educational programs and other types of the active employment policy in cooperation with employers, educational institutions and other legal persons; developing the cooperation with educational institutions in order to adjust educational programs to the demand for workers and undertake professional orientation, etc.

- **Committee for Monitoring Active Employment Policy Measures**

This committee is composed of representatives of various ministries appointed by the Croatian Government with the purpose to monitor, evaluate and create measures of active employment policies. They are particularly focused on monitoring the implementation of measures stated in the Croatian National Employment Action Plan. So far, their work has been rather passive since its activity is based primarily on the analysis provided by the experts with the research experience in the area of labor market. Furthermore, the committee has been engaged mostly in reviewing the reports presented by the Croatian Employment Service and suggesting measures and alterations based upon those reports while not much has been done in reviewing the effects of other institutions on the labor market.

- **Fund for Development and Employment**

This is the newest institution which is responsible for financing all measures of the active employment policy and for supporting various development projects. Currently, it has been

limited in its capacity related to number of its employees but the intention is to increase and expand the responsibilities of this fund out of which some include issuing the guarantees to pay the lagged incomes of the workers who lost their jobs due to the firm bankruptcy as well as it will have the function of financial service in implementation of the CARDS project.

4.2. Polish legislative and institutional framework for the labor market

4.2.1. Act of April 20th, 2004 on employment promotion and labor market institutions

The vision of Poland's accession to the European Union forced the government to the realization of more active and more complex employment policy. Moreover, the high level of long-term unemployment urged the State to "financing labor instead of unemployment" (Wisniewski, 2000: 276). As a result Poland' employment policy in late nineties was influenced by the European Employment Strategy.

Under the influence of both the situation on the labor market as well as the requirements predicted in the Association Agreement with the European Union the government adopted the Act of December 14[th], 1994 on employment and counteracting unemployment[16]. It was amended several times and finally it was repealed and substituted by the Act of April 20[th], 2004 on employment promotion and labor market institutions.[17] It contains the most important provisions concerning employment policy and counteracting the unemployment. Therefore, further remarks will concentrate on them. However, there are also other regulations which influence employment such as the Labor Code[18], Acts on income tax from natural and legal persons etc.

Act of April 20[th], 2004 predicts labor market services and instruments which support them. One of the most important are work exchange and EURES services which consist in: helping the unemployed and job-seekers to get appropriate employment and helping the employers to find employees with the expected vocational qualifications; gathering job offers; providing employers with information on job candidates corresponding to the submitted job offer, etc. Work exchange services are provided mainly by district and province job centers, free of charges. They are based on the principles of availability, equality, publicity and voluntary character.[19] There is no doubt that effective work exchange contributes to the reduction of costs connecting with seeking for jobs as well as to shortening time during which workers are unemployed (Marciniszyn, 2005: 30).

It should also be added that since May 1[st], 2004 Polish public employment services have become members of EURES (European Employment Services) which cover the states of European Economic Area. Thanks to it the unemployed and job-seekers can get information about opportunities of employment in other Member States (those of them that did not predict transitional periods for free movement of workers from Poland).

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[16] Its original version was published in Journal of Law of 1995, no 1, item 1.

[17] Journal of Law of 2004, no 99, item 1001. It entered into force on June 1[st], 2004.

[18] E.g. art. 39 of the Code prohibits the termination of a work contract with a person who lacks no more than four years to be at the retirement age (if the period of employment allows this person to get the right to pension at this age).

[19] Compare art. 36 point 4 of the Act. See also P. Ziołkowski, *Promocja zatrudnienia i instytucje rynku pracy. Ustawa z omówieniem (Employment Promotion and Labor Market Institutions. Act with Commentary),* Warszawa 2004, p. 20.

The second active form of counteracting the unemployment is vocational counseling. It consists in particular in: providing information on vocations, labor market, job and training opportunities and providing counsel that facilitate selection of a vocation, change of qualifications, undertaking or changing employment (this includes examination of vocational interests and capacities). Vocational counseling is also connected with helping employers to select candidates for work, in particular with providing information and counsel in this sphere.

Help in active search for work is the third example of labor market services. It consists in preparing the unemployed and those seeking employment to manage search activities and undertake employment with higher efficiency. This is achieved through the participation in a training focused on job seeking skills, the participation in unemployment prevention classes, the access to information and digital databases, aimed at acquiring skills in job seeking and self-employment.

Labor market services also include the organization of trainings. They are organized by district job centers according to the plan prepared after the evaluation of training needs on local labor markets. Training plans contain information on their subject, dates of their realization, conditions for candidates, principles of recruitment procedure etc. Plans are posted up in the seats of district job centers as well as in workplace where group dismissals are planned and institutions which give social assistance for the unemployed.

Trainings organized by district job centers are open to the unemployed, people who get training allowance, reserve soldiers and certain categories of job-seekers. They aim at increasing chances to obtain employment or other paid work, at improving vocational qualifications or increasing the level of occupational activity in particular in the case of: lack of vocational qualifications; the need to change or improve qualifications due to lack of appropriate job offers, loss of the capacity to carry out work in the hitherto practiced vocation; lack of active work search skills. Such trainings are financed from the Labor Fund and can last up till 6 month (or up till 12 months if their programs require so). An unemployed person who has been sent to and is participating in a training course is entitled to a training allowance (the monthly training allowance is equal to 20% of the allowance for the unemployed). The young who are under 25 can get scholarship during the period of training (scholarship is equal to 40% of the allowance for the unemployed).

Labor market services are supported by labor market instruments. Some of them can be used for all unemployed persons. Others are predicted for certain groups of the unemployed. The first group includes: financing the costs of travel and accommodation, co-financing of the furnishing a work place or of engaging in a business activity, refund of the costs born for social insurance contribution, additional unemployment prevention allowance.

Thus, an unemployed person can ask for the refund of the costs of travel to the work place or the place of other paid work e.g. during the trial period; the place of training or vocational counseling classes. The refund is given from the Labor Fund by the district governor who takes into account all the circumstances of the case. The person has to meet jointly three conditions – has to undertake employment or other paid work or participate in training and vocational counseling classes outside the place of permanent residence, do it on the basis of an assignment of a district job centre and receive a salary that does not exceed 200% of the minimum remuneration for work. An unemployed person can also ask for refund of the cost

of accommodation. The whole procedure is the same but the conditions which have to be met by such a person are slightly different.[20]

The employer who bore the cost of furnishing and/or providing additional equipment for a work-stand for an unemployed person following an assignment may receive the reimbursement of these costs from the Labor Fund. The amount of the reimbursement is specified in the contract concluded with the district governor and cannot be higher than 500% of the average remuneration.

An unemployed person may be granted a one-off subsidy for undertaking business activities from the Labor Fund. Again, the amount of subsidy is specified in the contract concluded with the district governor and cannot exceed 500% of the average remuneration.

The district governor can conclude with en employer a contract that provides for one-off refund of the costs born for the paid social insurance contributions related to the employment of an unemployed person sent by the job centre. Such a refund can be realized if the employer provided the assigned unemployed person with full-time employment for at least 12 months and this person remains employed after 12 months.

An unemployed person with the right to the benefit for the unemployed is eligible for an additional unemployment prevention allowance if: as a result of job assignment issued by a district job centre he/she undertook part-time employment according to the standard for a given occupation or service and receives a salary that is lower than the minimum remuneration for work or undertook employment or other paid work on his/her own initiative.

There are also labor market instruments for "persons whose situation on the labor market is special". This group consists of the unemployed who: are under 25 or over 50, are persistently unemployed, maintain on their own at least one child under 7, lack vocational qualifications, are disabled. If there are no offers of employment for the above-mentioned groups of the unemployed, district job centers can initiate and finance intervention or public works. The first are connected with the subsidies given to employers for the employment of such people.[21] Thus, district governor refunds the employer a previously agreed-upon part of the outlays for the remuneration, bonuses or social insurance contributions for the assigned unemployed who has to be engaged in intervention works for the period of up to 6 months. The level of refund is determined in the contract concluded between the employer and the district governor.

Public works are similar to intervention works. They can be organized by communes or non-governmental organizations which deal with the problems of environment protection, culture, education sport and tourism, health care, unemployment and social welfare. District job centers can offer public works on the terms of full-time jobs only to: the persistently unemployed; the unemployed over 50; the unemployed who maintain on their own at least one child under 7. District governor concludes contracts with organizers of public works and

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[20] He/she has to undertake employment or other paid work or participate in training and vocational counselling classes outside the place of permanent residence (the total time of commuting has to exceed 3 hours a day), do it on the basis of an assignment of a district job centre, stay in a hotel or rented flat and receive a salary that does not exceed 200% of the minimum remuneration for work in the month, for which the accommodation cost is refunded.

[21] Compare E. Kwiatkowski, W. Kwiatkowska, *Bezrobocie i jego skutki społeczno-ekonomiczne w okresie transformacji systemu społeczno-gospodarczego w Polsce (Unemployment and its Socio-Economic Results in the Period of Socio-Economic Transformation in Poland,* Toruń-Płock 1998, p. 64.

refunds part of the costs spent on remuneration, bonuses or social insurance contributions. The level of refund is determined in the contract and depends on the length of employment.

Particular instruments are predicted for the unemployed under 25. Its aim is to activate them and help to get qualifications or continue education. They include trial period, vocational training at the work place and scholarships. Trial period (it cannot exceed 12 months) and vocational training at the work place are carried out pursuant to a contract concluded between the district governor and the employer, according to the program provided in the contract.

Scholarships are granted by the governor on request of the unemployed under 25 and without vocational qualifications who during the 6 months since the registration in the district job centre began education in a supra-primary or supra-secondary school for adults or started to study at a university as an extramural or co-op student. Generally, scholarship is equal to 50% of the benefit for the unemployed and is paid for the period of 12 months.

The Act also predicts passive forms of counteracting the unemployment. They include *inter alia* benefits for the unemployed and pre-retirement benefits. An unemployed person is eligible for the benefit for each calendar day after 7 days since the day of registration in the appropriate job centre if: (a) there are no proposals of appropriate job, training, trial period, vocational training at the work place, intervention or public works for this person (so one can say that this is the last resort) and (b) during 18 months proceeding the registration, for the period of at least 365 days the person was employed and received a salary equal at least to the minimum remuneration or the person worked on the basis of a work-by-job contract and acquired an income or the person provided services on the basis of an agency contract etc. (so there is a requirement of performing paid work). Thus, it can be noticed that benefits are not received on the automatic basis and certain conditions have to be met. Moreover, the periods of receiving them are differentiated to 6, 12 or 18 months and depend on the unemployment rate within the territory of the unemployed person's residence and on his/ her personal situation. As a result of these regulations the right to benefits for the unemployed was limited. This is supposed to force them to look for job or training opportunities. The money previously spent on benefits can support labor market services and instruments (active forms of counteracting the unemployment).

According to art. 58 of the Act the unemployed who are over 50 can apply for the right to a pre-retirement benefit after 6 months since the day of registration in a district job centre. However, they have to meet the conditions for becoming eligible for this benefit, defined in separate provisions (they require e.g. certain work periods).

4.2.2. Institutions

The following institutions influence significantly the behavior of labor market in Poland: the Ministry of Labor and Social Policy, the Public Employment Services and the Labor Fund.

- **Ministry of Labor and Social Policy**

The main tasks of the minister responsible for the labor-related issues (currently the Minister of Labor and Social Policy) are connected with preparation and coordination of the realization of the National Action Plan for Employment and coordination of the public employment services. The minister also realizes tasks related to the participation of these services in the EURES network through the national EURES coordinator who operates within the office of the minister.

- **Public Employment Services**

They consist of district and province job centers, the office of the minister responsible for labor issues and province offices. Currently, there are 16 province job centers and 338 district job centers[22]. The system of public employment services is based on the decentralized model in which each centre is independent. As a result, general employment policy is determined on the state level but the centers can adjust it to the local needs. Decentralization does not exclude certain inter-relations among employment institutions. They concern inter alia the monitoring of the province and district self-government by the province governor[23].

Public employment services realize the main labor market services and instruments. They help the unemployed and those seeking employment to find work. They also provide vocational counseling services and organize trainings. It can be said that most of the activities which are necessary to re-integrate workers with the labor market are undertaken by public employment services.

- **The Labor Fund**

Resources for the implementation of the employment policy and payment of benefits come from the Labor Fund. It is a national target fund but it has several sources of incomes e.g. the obligatory contribution paid by employers, farming production cooperatives and other obliged persons; subsidies from the state budget; the means allocated from the European Union budget for co-financing projects financed from the Labor Fund or for co-financing activities related to the participation of the public employment services in EURES.

- **Other institutions**

Among the other institutions the following ones are of particular interest:
- Voluntary Work Corps - state budget entities that specialize in operations for the benefit of the youth. They realize the tasks in the domain of employment and prevention of social exclusion of the youth as well as the tasks of providing the youth with education.
- Employment agencies - non-public organizational units that provide services in the domain of work exchange with Polish and foreign employers, vocational and personal counseling and temporary work.
- Training institutions - public or non-public entities that provide non-school education pursuant to separate provisions.
- Social dialogue institutions deal with labor market problems e.g. organizations of trade unions, employers and the unemployed and non-government organizations cooperating with public employment services.
- Local partnership institutions realize initiatives of labor market partners, taken up for the realization of the tasks defined herein and supported by the local self-government organs.

4.3. Selected labor market institutions in action: Croatia and Poland compared

Transition reforms, including bankruptcy process and closure of many big firms together with ownership transformation, rationalization and increase of the level of productivity through workers' dismissals as well as insufficient job creation have given rise to accelerated inflows

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[22] Information from the site: http://www.mpips.gov.pl/index.php?gid=489, accessed November 30th, 2006
[23] Ibidem.

into unemployment at the beginning of 1990s. These have been reflected in an increasing share of workers who were laid-off among the unemployed and, correspondingly, in a decreasing proportion of workers who are first-time job seekers. At the same time, outflows from unemployment, including outflows to jobs, have slowed down. Several years ago, outflows to jobs exhibit increasing tendency implying unemployment reduction in both countries.

Relatively few unemployed receive unemployment benefit in Croatia (see Figure 3). The benefit coverage rate (percentage of unemployed who receive benefit) has been below 15 percent. According to Rutkowski (2003) this can be attributed to two facts – there are a great number of new entrants to the labor market who do not qualified for the unemployment benefit as required by the law and there is a great number of long term unemployed, who are no longer eligible for the benefit which is given in duration of one year if the otherwise is not determined by the law. However, the situation is different in Poland (Figure 3). At the beginning of the transition the Polish government introduced relatively high unemployment benefits which have been reduced along with tightening of criteria for them and the reduction of their duration as the Polish unemployment policy have been changed over the last years. Unemployed people currently receive support at subsistence level and are simultaneously encouraged to seek a job. In addition, the restructuring of major sectors of economy has caused the job losses on the large scale, forcing the government to adjust its social insurance policy to the current situation as well as to introduce a series of allowances used as the buffer against the adverse impact of the existing situation in the labor market.[24]
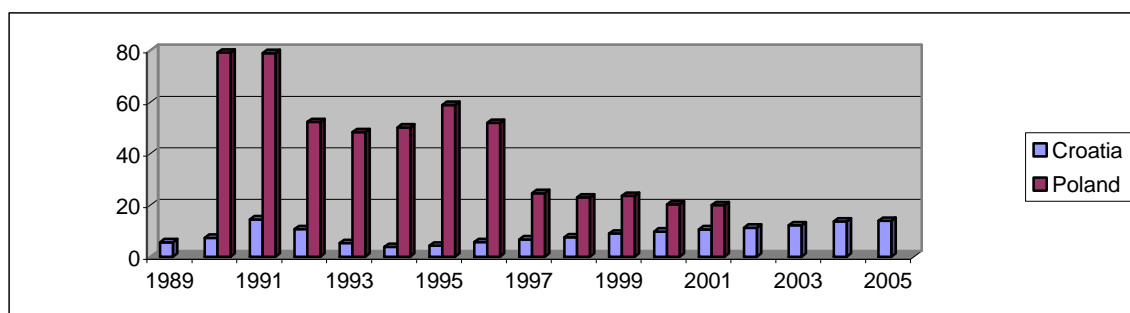
Figure 3.   Unemployment benefit recipients in Croatia and Poland

Source of data: for Croatia: CES, 2005
                for Poland: Gardawski, 2002 according to *GUS yearbooks*

Rutkowski (2003) examined several potential causes of high unemployment in Croatia, like the unemployment benefit system, labor taxation, the wage structure, and skill and spatial mismatches. He found out that they do not play a substantial part in accounting for poor labor market outcomes in Croatia. In his explanation he focuses on the job creation in Croatia which is among the lowest among CEE transition economies. Namely, low job creation in Croatia is an aftermath of the extremely strict employment protection legislation – termination of work contract is difficult and costly while the flexible forms of employment are rather limited. If employment protection regulation is binding, the job turnover is expected to be

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[24] See more detailed explanation of unemployment benefits examined in Gardawski (2002) available via Internet at http://www.eiro.eurofound.eu.int/2002/10/feature/pl0210107f.html), accessed December 2nd, 2006

low. Job destruction will be low because it is costly for the employer to close an unproductive job and at the same time the job creation will be low because employers will avoid hiring new workers in order not to incur future dismissal costs. This results in falling employment and accumulation of unemployment since the new entrants to the labor market face difficulties in finding a job.

World Bank's Indicators indicate the level of employment protection, i.e. difficulties that employers face in hiring and firing workers. Each of indicators from Table 2 assigns values between 0 and 100, with higher values representing more rigid regulations.

Table 2. Employing Workers (2006)

Indicator	Croatia	Poland	Region	OECD
Difficulty of Hiring Index	61	0	34.2	27.0
Rigidity of Hours Index	40	60	50.7	45.2
Difficulty of Firing Index	50	40	37.1	27.4
Rigidity of Employment Index	50	33	40.8	33.3
Hiring cost (% of salary)	17.2	21.4	26.7	21.4
Firing costs (weeks of wages)	39.0	13.0	26.2	31.3

Note: The Rigidity of Employment Index is an average of the three indices. The Difficulty of Hiring Index measures how difficult it is to hire a new worker. The Rigidity of Hours Index measures how rigid the regulations are on working hours. The Difficulty of Firing Index measures how difficult it is to dismiss a redundant worker.

Source: World Bank Group, Doing Business www.doingbusiness.org, accessed December 2[nd], 2006

In general, employment protection is the most stringent in Croatia reflecting the rigid character of Croatian labor market. Poland is closer to the OECD values. Cazes (2002) interestingly points out that transition countries do not constitute a homogeneous group when it comes to employment protection. For example, Hungary, Bulgaria and Poland are among the most flexible for regular employment followed by Estonia and the Czech Republic while the Russian Federation exhibits the most restrictive one. If regular and temporary employment is concerned, Hungary yet again leads with flexibility, closely followed by Poland and the Czech Republic, while the Russian Federation and Slovenia tend to be the most restrictive.

5. CONCLUDING REMARKS

It has been well established in theory and practice that the high unemployment represents striking economic failures that are costly not only to individuals directly affected, but also to the economy and society as a whole. Thus, it does not surprise that governments across the world place the objective of rising employment at the center of policy agenda targeting at economic growth and development.

The European Union (EU) has committed itself to combat the unemployment ever since signing the treaty of Amsterdam in 1997. The challenging task of combating unemployment and its economic and social costs have been translated into the Luxembourg European Employment Strategy (1997) and further improved into Lisbon strategy for growth and jobs (2000) by setting a target to reduce unemployment, i.e. to reach employment of 70% by 2010, create more and better jobs and thus ensure stronger and lasting growth for all EU member states. Poland, a 'young' EU member country and Croatia, an EU candidate country share the

similar experience with high unemployment rates ever since entering the process of transition during early 1990s. The transition to market-oriented economy and political democracy has proven to be a complex task, which offered numerous opportunities in terms of private initiative development, emergence of property rights and the like while at the same time causing a contraction of industrial output, increase in income inequality, increase in the foreign debt and domestic arrears. The high unemployment rates, which were oscillating at the level of 20% for more than a decade now in both countries, have been identified as one of the most detrimental aftermath of the transition that continues to burden their national economies.

Unemployment in Croatia and Poland has been traditionally explained by various factors such as continuous macroeconomic and structural reforms, which lack consistency, completeness and are occasionally too slow in its implementation. However, recent academic and public debates often point out that the causes of high unemployment can be found in labor market institutions. Labor market rigidities had been identified as one of the major source of unemployment persistence in both countries. Croatian and Polish governments have been aware of the need to change legislative and institutional setting in order to promote employment.

Both Croatian and Polish legislators, guided by the EU commitments formulated in European Employment Strategy, have been investing efforts to readjust regulations, recreate policies and develop institutions to counteract the unemployment that carries significant economic, social and political burdens. Legislations have gone through profound amendments in attempt to facilitate firms with greater flexibility and competitiveness while ensuring the employment protection at the same time. Wide range of labor market programs has been introduced, both active and passive, in order to relieve the tensions in the labor markets as well as to provide income support.

Even tough much changes have been done in order to create more flexible labor markets in Croatia and Poland, the challenges still remain in order to ensure labor market stability. There is a lack of regulations which would reduce the costs of labor and encourage employers to create new work places. Such instruments like co-financing of the furnishing a work place, refund of the costs born for social insurance contribution, intervention or public works can be helpful but they will not solve the problem. Thus, new regulations should be introduced and the existing labor market services and instruments should be used more extensively.

Recognizing the need to adjust the legislative and institutional package to the needs of labor market is an important step for both Croatian and Polish government in combating alarming rates of unemployment that strikingly persists in both countries over the last decade. Finding a good balance between the need of flexibility desired by employers and the need of security desired by employees, coupled with macroeconomic improvements, will ensure the greater employment leading to greater economic growth and overall social development.

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EU INTEGRATION CAPACITY AND EUROPEANISATION PROSPECTS FOR 'EXCLUDED' STATES

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1. INTRODUCTION

The European Union has clearly reached some kind of crisis in terms of ability to take in additional members. Many see even the impending Romanian and Bulgarian entry as a reluctant enlargement with longstanding elite level reservations about further enlargement now accompanied by significant popular misgivings. Whilst enlargement remained off the radar of the EU populace for much of post cold-war period, since May 2004 it is has increasingly become part of the political discourse in EU member states mainly due to perceived problems of immigration and other negative consequences of open borders. Fears of 'unfair' economic competition from new member states with much lower costs of production seems also to be playing a part. Alongside this the complications affecting the Turkish EU accession negotiations and the reservations about Turkish EU membership in general are burdening not only that accession process but also those of other candidates and aspirant EU members. Moreover, perceived problems of enlargement also seem to be contributing to a trend of disinterest in the EU turning into growing disillusion and even mistrust.

The current negative political climate for EU expansion was the background for a European Commission 'reflection' on enlargement issued in November 2006. The Commission's communication to the European parliament and European Council states that (European Commission, 2006a, 15) "The EU honours the commitments made to the countries already in the (enlargement) process, but is cautious in assuming any new commitments." Thus any European countries not already in the process – this specifically applies to post-Soviet states - seem to be faced with indefinite exclusion. At the same time, even those states in the process face a somewhat uncertain future as far their Europeanisation is concerned. The prospect of a long wait for EU membership and increasingly strict and rigorous assessment of their preparedness to accede runs the risk of serious declines in domestic political support for EU entry. Should this compromise the already painful and complicated and lengthy process of preparation for EU membership then the risk of exclusion will be real since the (European

Commission, 2006a, 15) "pace of the accession process depends on the pace of reforms in the candidate country."

This paper addresses the Europeanisation prospects of current EU non-member states in the light of the present uncertainties surrounding the EU enlargement agenda, concentrating mainly on 'excluded' post-Soviet countries currently without an EU membership perspective. The main assumption is that the EU has not become closed off to more new members but that the situation has inevitably shifted to one where further expansion is a much more long-term prospect and a key task of pro-integration forces of all EU aspirants is to accept this and to develop strategies to deal with it. The paper begins with some reflections on 'inclusion and exclusion' in the EU integration process. Section two provides an analysis of the current problem of enlargement fatigue and introduces the concept of an 'Optimum Integration Area' as a means of understanding the lengthening time scale of EU enlargement. The next part argues that vital Europeanisation processes are nevertheless on the agenda, both through the EU engagement currently offered 'in lieu' of a membership promise and also via accession-related subregional cooperation initiatives. The final sections elaborate the subregional cooperation issue due to the discourse of subregional economic cooperation as a possible *alternative* integration option for post-Soviet states and the debate over the future role of the Single Economic Space (SES). The SES is discussed with reference to alternative preferences of SES participants, the interaction with EU integration and also the relevance of the Central European Free Trade Agreement (CEFTA) to these debates.

2. THE UNCERTAIN IDENTITY OF THE INCLUDED AND EXCLUDED

By the early 1990s most Central and East-Central European (ECE) states had already signed Europe Agreements (EAs). At the same time the EU was already serving early notice of how the EU membership credentials of the various categories of post-communist country were perceived by withholding associate membership from post-Soviet countries. The Partnership and Cooperation Agreements (PCAs) offered to and accepted by selected post-Soviet states in the early 1990s were assumed to be long-term arrangements open to some relatively modest possibilities for upgrading the economic integration with the EU in future (mainly in the form of a provision to explore a move to free trade agreements at some later stage).[1] The lack of any serious membership requests from this part of Europe consolidated the assumption that, apart from the three Baltic states, the post-Soviet area would not be part of the EU enlargement agenda. This assumption still prevailed by time the end of the wars in former Yugoslavia and receding chance of renewed conflict brought the West Balkans out of longstanding limbo in their relations with the EU. The Stabilisation and Association Process (SAP) was introduced in 1999 putting them on the road to an EU membership perspective.[2]

Due to the eastward shift of its frontiers and the entry of several new member states with pronounced interests in the region, the 5[th] EU enlargement necessitated a re-think of EU

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[1] PCAs are (http://ec.europa.eu/comm/external_relations/ceeca/pca/index.htm) "legal frameworks, based on the respect of democratic principles and human rights, setting out the political, economic and trade relationship between the EU and its partner countries. Each PCA is a ten-year bilateral treaty signed and ratified by the EU and the individual state".. PCA countries are Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, Russia, Turkmenistan, Ukraine and Uzbekistan. Not all PCAs have entered into force, for example that of Belarus.
[2] The SAP includes the countries of the former Yugoslavia except Slovenia plus Albania.

policies towards East European countries which now lay on its doorstep. The process of formulating a new strategy towards the countries of the former Soviet Union - and particularly the so-called Western Newly Independent States (WNIS) of Ukraine, Belarus and Moldova - began after the accession negotiations were completed in December 2002. By the time the actual EU enlargement took place in May 2004 the reflection period was complete and a new EU instrument was on the table. The European Commission's proposal to supplement PCAs with the European Neighbourhood Policy (ENP) was approved by the European Council and the next step was whether the Eastern neighbours themselves would agree to it. Yet a new complication was already at hand in that shortly after the 5[th] enlargement took place the 'Orange Revolution' in Ukraine resulted in the first real bout of entry pressure from a post-Soviet state. Nevertheless, apart from Russia, where the status of strategic partner applies, and self-isolating Belarus, all those East European states offered the ENP relationship have agreed to it for now.[3]

Among the various interpretations of the ENP is the view that it is essentially a device for exclusion. In other words a tool to define the final borders of the EU and irrevocably settle a question that had been alive since the Turkish application in 1987 and which gathered resonance after the collapse of the Berlin Wall and the massive wave of membership demand which the EU subsequently encountered. This interpretation is somewhat hard to dispute if exclusion is defined starkly in terms of whether nor not an EU membership promise is on the table. The official EU position on ENP is that "the ENP is not about enlargement and does not offer an accession perspective".[4] Despite ongoing appeals from Ukrainian President Victor Yushchenko for some kind of accession perspective to be offered by Brussels no such thing has materialized so far. Indeed after the latest EU-Ukrainian summit meeting, held in Brussels in October 2006, Commission President Manuel Barroso said "Ukraine is not ready and we are not ready for discussions on enlargement", while the disappointed Yushchenko's comment was that he "occasionally worried about the intention to determine EU borders" and added that "we hope these discussions will not result in the creation of some new Berlin Wall along the EU borders."[5]

Yet despite all this the identity of the included and excluded in the EU expansion process seems as elusive as ever. The EU accession of Turkey and (apart from Croatia) SAP/West Balkan countries is either floundering or scheduled to take place so far in the future that there must be real doubts as to whether the necessary reform processes can be sustained. On the day of the final EU summit of 2007 it was reported that EU leaders would (*Financial Times*, 15/12/06) "set tough new entry rules for all future EU members in an attempt to allay public concerns…Turkey and the countries of the western Balkans – Croatia, Serbia, Montenegro, Bosnia, Macedonia and Albania – will face tougher scrutiny than any other candidate country before". On the other hand the ENP looks like it will not after all be a tool to indefinitely set the limits of EU expansion. Paradoxically, there is increasing acceptance that, despite all the current enlargement-related trauma, the EU cannot hold off the Ukrainian membership claim forever. Views are being aired that the EU will eventually have to incorporate all *European* states, otherwise the issue of where the final border lies will never go away. For example, in

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[3] Note also that, as well as the WNIS the Caucasian countries Armenia, Azerbaijan and Georgia whose putative EU membership credentials may be less grounded in an unambiguous European identity, also participate in ENP. ENP also covers the EU's southern neighbours, something which has been used to cast doubt on its appropriateness for countries that are clearly European.

[4] http://ec.europa.eu/world/enp/policy_en.htm

[5] Both the Barroso and Yushchenko quotes are from 'Ukraine enlargement plea falls on deaf ears', EUobserver, 27/10/2006. Available at: http://euobserver.com/9/22755/?rk=1

August 2006 Andreas Schockenhoff, Deputy Chairman of the CDU/CSU parliamentary group in the Bundestag wrote that (Schockenhof, 2006, 90) article 49 "should apply in principle to all European countries including Ukraine, Belarus and Moldova". Just recently, even former Commissioner and ardent enlargement opponent Frits Bolkenstein (who was the only Commissioner to vote against the Commission's 2004 recommendation to open negotiations with Turkey) recognizes the logic that if EU enlargement is to be ongoing all European countries must be included (Bolkenstein, 2006): "Whoever lets Turkey in cannot very well refuse Ukraine, which is more European than Turkey. Ukrainian membership (much advocated by Poland) would be followed by that of Belarus, Moldova and - why not - Georgia, Armenia and Azerbidjan."

Thus it seems that the only unambiguous part of the picture concerns the self-excluded. The absence of EU membership aspirations on the part of Russia and the current refusal of Belarus to take the steps necessary to engage with EU integration have already been noted. In addition, some West European countries, of course, also do not presently aspire to full membership of the EU. This group comprises Switzerland along with European Economic Area (EEA) members Norway, Iceland and Lichtenstein. All have all developed intensive integration with the EU but the domestic political consensus is that they do not require full EU membership at this stage.

3. CAUSES OF EU ENLARGEMENT FATIGUE

The official EU position on why enlargement must be subject to a period of pause is based on two basic arguments. First, the state of (un)readiness of the current set of candidates and non-candidate aspirants justifies a rather indefinite pre-accession period and a vision of more accessions in the long rather than short or medium term. Second, there is the rhetoric of the EU's own 'integration capacity' which refers not only to the problems of digesting the ten new members which joined in May 2004 but also the Constitutional Treaty impasse which has put in place an institutional obstacle to adding new members.[6] What factors have brought the EU to the situation where the enlargement agenda is such a major source of both political and practical difficulty?

A useful first step in understanding the onset of enlargement fatigue involves reflecting back on the enlargement that took place in May 2004 and recognizing that the relative speed and scale of the 5[th] enlargement was underwritten by a special set of conditions that are unlikely to be reproduced. Many scholars have argued that there was a clear asymmetry between the ECE countries and the EU as far as the potential gains of EU enlargement were concerned and certain EU states were clearly opposed to enlargement. Thus there was a puzzle to be solved: why was enlargement able to take place against the wishes of its opponents and contrary to the predictions of the dominant rationalist/liberal intergovernmentalist theories of EU integration dynamics? [7] According to Schimmelfennig (2001) those EU members against expansion became 'rhetorically entrapped' by the EU's self-proclaimed identity which

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[6] Following the publication of the European Commission's (2006) Communication from the Commission to the European Parliament and the Council: Enlargement Strategy and Main Challenges 2006-2007, the convention has been to replace the term 'absorption capacity' with 'integration capacity'
[7] Schimmelfenning identified the drivers of enlargement as Austria, Finland ,Germany, Britain, Denmark, Sweden, and the brakemen as Belgium, Luxembourg, Netherlands, France, Greece, Ireland, Italy, Portugal Spain

stressed being (a) open to any European country practicing EU values and principles; and (b) a community of liberal democratic states based on the rule of law. Schimmelfennig and, later, Sedelmeir (2005) convincingly show that a coalition of a pro-enlargement commission and member states in favour of enlargement were able to effectively deploy an *EU identity argument* against the unwilling. The anti-enlargement parties were placed in the position of either responding positively to the ECE claims of a right to 'return to Europe' or declaring their opposition on the basis of narrow self-interest, an action which also would have undermined their own claim to practice the key values of the club. To put this argument in a slightly simplified form, the pro-enlargement camp successfully used the argument that the EU was morally bound to enlarge to the east to overcome resistance of EU member states who opposed expansion (Schimmelfennig, 2001,): "the opponents of a firm commitment to Eastern enlargement found themselves rhetorically entrapped. They could neither openly oppose nor threaten to veto enlargement without damaging their credibility as community members. With the support of the EC Commission's proposal power and the council presidencies of pro-enlargement member states, the initial objections of the community made way for a principled commitment to Eastern enlargement". Nowadays, far fewer big players are unambiguously pro-enlargement and 'integration capacity' seems to have replaced 'rhetorical entrapment' as a device to protect the integrity of the European project and more broadly safeguard liberal democracy in the EU against diluting influences. Moreover, the historical guilt that underwrote the ECE claim to EU membership could not be applied to the countries of the former USSR.

Second, the complimentary relationship between enlargement and EU foreign policy seems to have reached its limits. The May 2004 enlargement has been declared as (Kok, 11) "the most successful act of foreign policy that the EU has ever made" yet of course the eastward expansion process began when the Common Foreign and Security Policy (CFSP) was embryonic and the foreign policy effectiveness of enlargement and the attendant conditionality was yet to be fully revealed. The rapid steps forward in CFSP and European Security and Defence Policy (ESDP) since the late 1990s have meant that SAP and ENP countries' relations with the EU have become much more explicitly intertwined with EU foreign policy. In the SAP zone, CFSP/ESDP objectives were pre-eminent (unsurprising, as it was events in this part of Europe which more than anything stimulated the main steps forward in ESDP) and EU accession was deemed to be a necessary aspect of fulfilling the EU foreign policy objectives for the region. Whereas the SAP states have been simultaneously part of the enlargement process and CFSP, this is not the case so far for WINS states, whose status in this respect is more explicitly a topic of CFSP and formally separated from the enlargement agenda. Yet paradoxically, the enlargement method has remained the key instrument in EU foreign policy towards its neighbours. For the West Balkans enlargement remains a key ingredient in achieving the foreign and security policy goals.[8] In the case of the post-soviet states the EU foreign policy priority is not strong enough to justify enlargement.

Third, and following on from the point above, we could analyse the issue of post-Soviet EU member credentials from a neo-realist perspective and float the idea that the EU expansion limitations are ultimately governed by geopolitical considerations and power politics. The geopolitical fault line of 'EU-rope' has shifted from the old iron curtain to the borders of the former USSR. The sphere of influence of Russia has shrunk but still exists and is still highly relevant. This perspective also links closely to the relationship between enlargement and EU foreign policy, as the approach towards ENP states will be influenced by, and perhaps even

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[8] Of course it might also be suggested that as the decisive 2003 Thessaloniki EU summit was favourable timing in that it preceded the 5[th] enlargement and subsequent public opinion turn against further expansion.

subordinated to, the EU's relations with Russia. EU policy will therefore naturally have to reflect the fact that its influence in the ENP region is far from exclusive and currently subject to maybe a changing balance due to a general revival of Russian assertiveness and confidence in the context of the energy security factor.

The fourth factor is connected to the integration capacity issue. It involves a somewhat lengthier elaboration than for the factors mentioned above and utilises the concept of the EU as an 'Optimum Integration Area'. As argued earlier, the assumption made in this article is not that the enlargement process has irrevocably run aground but more a case of a shifting time scale and a more rigorous and technocratic assessment of readiness to join. This is because the enlargement agenda now encompasses countries that currently have profiles that threaten the internal consistency and coherence of the EU. A good way to begin the explanation is to point out that the analysis of the dynamics of the enlargement process must also take into account not only post-communist countries currently pursuing EU membership but also the four West European states mentioned earlier in this article that are in the category of currently not wishing to opt for EU entry. Most observers would accept that if the four EEA/EFTA states were to shift their positions and decide that they would like full membership after all it would be fairly straightforward for them to join. So the question that needs to be asked is what is different about these countries? Why does the constraint of 'integration capacity' not seem to apply in the same way to the EEA/EFTA states?

One obvious reason for this is the nature of the European Economic Area itself. The EEA "unites from May 2004 the 25 EU member states and the three EEA EFTA states (Iceland, Lichtenstein and Norway) into an internal market governed by the same basic rules. These rules aim to enable goods, services, capital and persons to move freely about the EEA in an open and competitive environment, a concept referred to as the four freedoms. In practice, this means that citizens of all 28 countries, with over 460 million consumers, have the right to move freely to live, study, work, invest and set up business in the EEA."[9] Clearly there are two things here. First, the EEA states are so closely entwined with the EU they are virtually full members anyway. For political reasons their entry would have to be delicately managed but there are no serious obstacles to entry. Second, the most serious issues around the current and future enlargement agenda for post-communist countries are centered on their entry to the single market that is the bedrock of the EU. These implications include, of course: the growing conundrum over free movement of labour; the ability to meet single market regulatory standards; the additional costs in terms of EU structural funds which are used to address regional income and development differences across the single market. The EEA countries, of course, are already full players in the EU single market hence are not really comparable cases to the post-soviet EU aspirants in any way. However, making some comparisons between the EEA/EFTA countries gives key insights into why some European countries are at present more viable members of the EU and why 'enlargement fatigue' is relevant for some but not others.

Table 1 adapts the idea of an 'Optimum Currency Area' (OCA) to the EU enlargement issue. The OCA theory tries to identify the necessary conditions for a currency union to work and essentially holds that the economic profiles of the prospective participants need to be sufficiently close to each other so that unsuitable partners do not put a strain on the whole system. The idea of an 'optimum integration area' uses a number of indicators which could be

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[9] It should be added that EEA states also participate in a large number of EU policies and contribute to the EU budget in order to be included in those policies.

used to determine whether potential members are close enough to the prevailing levels in the EU in order to be absorbed without undermining or destabilising the integration project – or at least to have the effect of creating significant domestic political discourses in EU member states around these issues. It therefore attempts to measure compatibility with the EU at the current time. The countries included in the table are two EEA states (Iceland, Norway), Switzerland, three WNIS states (Ukraine, Belarus, Moldova) and two ECE states (Czech Republic and Bulgaria) for an additional comparative case.

Table1: ENP states and the EU Optimum Integration Area

	INCOME PER HEAD 2005 ($)	*FREEDOM INDEX*	*REGULATORY QUALITY*	*2005 TRANSITION RATING (EBRD)*	*RUSSIA FACTOR RELEVANT?*
ICELAND	33810	1	1.67	N/A	No
NORWAY	34530	1	1.46	N/A	No
SWITZERLAND	38270	1	1.47	N/A	No
UKRAINE	700	2.5	-0.2	2.89	Yes
MOLDOVA	400	3.5	-0.43	2.85	Yes
BELARUS	2870	6.5	-1.46	1.81	Yes
CZECH REP	5250	1	1.04	3.78	No
BULGARIA	1520	1.5	0.63	3.41	No

The first column of Table 1 compares income per head across these countries. Excessive discrepancies here can lead to several problems such as asymmetric migration patterns (largely one-way traffic in people flows because of vast differences in wage levels with potential negative consequences for host and home countries) and implications for the EU budget in particular new spending pressures on regional development programmes via the EU structural funds. Clearly on this criterion the ENP are outside the optimum integration area in comparison to the EEA/EFTA states. Next comes 'Freedom Index' which is derived from Freedom House mapping of the state of political rights and civil liberties.[10] The figure given concerns political rights and civil liberties with a score of 1 representing most free and 7 least free. Clearly the post-soviet states are not yet reaching the baseline political criteria for EU membership and some (Belarus) have been moving in the wrong direction. The issue here is compliance with key EU principles of democratic freedom and rule of law etc. and again the data brings out the WNIS states' deficiencies in this respect.

The third indicator, Regulatory Quality, is a figure taken from a World Bank database of governance indicators.[11] It measures "the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development". Here the range is between a score of +2.5 (best/highest) and -2.5 (worst/lowest). Clearly the WNIS countries have got a lot of work to do in order to bring their

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[10] Freedom House (2006) The Annual Survey of Political Rights and Civil Liberties. Available via: http://www.freedomhouse.org/template.cfm?page=15

[11] See: http://info.worldbank.org/governance/kkz2005/year_report.asp?yearid=1

economic regulatory framework up to EU/EEA standards. The final indicator is a companion to regulatory quality in that it is a measure of progress towards the establishment of a fully functioning market economy. This data is from the European Bank for Reconstruction and Development (EBRD) which has been measuring progress in transition from planned/command economy to market economy over the last 15 years or so.[12] The range is between 1 and 4 with 1 indicating no progress at all and 4 complete progress. Again we see a lot of distance for the neighbourhood countries to travel in this respect. Obviously there are no figures for the EEA countries but the cases of the Czech Republic and Bulgaria indicate the lag in the post-Soviet states. The final indicator simply refers to whether or not geopolitical factors could be relevant for EU policy defined in this case as whether or not Russian interests are significant.

In sum we can see that the ENP countries are as yet far from compatible with the standards needed to place them in the optimum integration area. Attaining membership of the EU will therefore logically be a long-term project. Though the appropriate reform measures, EU Action Plans and other reform-inducing processes such as WTO accession could bring them into line with most of these indicators eventually, the income per head gap is likely to remain significant for the foreseeable future which would indicate free movement of people will continue to be an elusive objective under current conditions. It can also be mentioned that the optimum integration area is not only relevant to the ENP states' lack of membership perspective but also has an impact on those countries that are in the enlargement process. The fact that the 'rhetorical entrapment' factor arguably allowed EU enlargement to already overshoot the optimum range has resulted in an uneven/discriminatory accession process. Many of the enlargement-related problems appearing today could be seen as part of a reaction to address the *perceived* damage done by an enlargement that breached the optimum integration area. This reaction includes for example the Romanian and Bulgarian worker movement restriction, other unprecedented 'attached strings' to their entry in January 2007 including the provisions to suspend EU aid, for example. Then there is the knock-on effect for Croatia, Turkey, Macedonia etc. who, as already noted above, will all face a much more rigorous and ruthless assessment of their readiness to join and certainly will not get (as Bulgaria and Romania did) a set date of entry before they have satisfied all the entry conditions.

4. ENLARGEMENT FATIGUE AND EUROPEANISATION PROCESSES

The recent tendency to replace the term 'absorption capacity' of the EU with 'integration capacity' in the enlargement debate is a somewhat perplexing choice of language when considering that though all post-communist countries have not been offered a membership perspective they have all been clearly offered an *integration* perspective. In spite of some key difference so far in the EU's approaches to the ECE, SAP and ENP groups - which is essentially to with the proscribed endgame for ENP states - there is broad consensus that EU's approach to all post-communist states has nevertheless had a key similarity in that it involves a route-map which is designed to end in an advanced position in the European integration process. As Cremona (2005,25) put it ENP is "an offer of an enhanced relationship with the EU based on the EEA model, that would be as close to the union as can be without being a member and (based on) the use of instruments derived from the (CEE states – author's addition) pre-accession process". In other words, if the membership perspective is stripped

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[12] EBRD Transition indicators are available at: http://www.ebrd.com/pubs/factsh/country/

out, it is clear that the EU has deployed its 'soft power' in a rather path-dependent way to the effect that the process and instruments used by the EU towards its ENP partners are very much based on the ECE and SAP approaches. The common ingredients have been as follows. First, formalised and regular political dialogue. Second, technical assistance projects – backed by dedicated EU funding instruments (PHARE, CARDS, TACIS/ENPI) – to support the post-socialist transformation and eventually to facilitate the practicalities of adopting EU laws and regulations. Third economic integration with the EU via various degrees of trade liberalisation with a free trade area between the EU and the ENP a stated goal in all cases. Fourth, the application of conditionality that links the provision of EU rewards with progress on EU-determined political and economic reforms. Fourth annual monitoring based on regular progress reforms as a tool to aid the effectiveness of conditionality. Finally the key principle of differentiation which allows for individual countries' relations with the EU to progress at varying speeds, not tied to a group/regional timetable, and country specific plans for EU preparation and concomitant deployment of EU technical and financial assistance.[13]

This ongoing engagement of the EU according to the key methods and instruments of the standard pre-accession process seems to provide an indisputable argument that 'enlargement fatigue' is not so far a barrier to Europeanisation since the ENP offers an unambiguous integration perspective. ENP is concerned with promoting and assisting the political and economic reforms that will align the ENP states with the Copenhagen criteria and thus support the 'baseline Europeanisation' needed as a foundation for 'integration proper'. In addition it is promoting the first stages of *de jure* 'integration proper' with the EU in the form of a planned free trade area between ENP states and the EU and later partial participation in the EU single market. This is scheduled to involve a gradual programme of regulatory alignment in order to achieve the promised 'stake in the internal market' and broader adaptation to EU laws and regulations etc.. Some further notable points about the Europeanisation potential of the ENP are as follows. First, it is possible that the integration perspective could eventually pave the way for a membership promise at some future point.[14] Second, Dodini and Fantini (2006) have pointed out that the ENP Action Plans require Ukraine and others to undertake what they have do anyway if they are serious about becoming EU members. In this way, it is also a valuable chance to demonstrate membership credentials and is clearly practical preparation for membership. Finally, the ENP itself has scope to include the participants in the core business of the EU which is economic integration. As Tsoukalis ((2006, 3) says: "European integration started as an economic affair, though with strong political undertones. Today, economics remains the backbone of it". Or, as the Financial Times (12/9/06) put it, the "business of Europe has always, among many other things, been business".

As well the *primary* dimension of the Europeanisation process that is operating through EU engagement and the integration perspective contained therein, another important dimension of the Europeanisation process operates at the level of subregional cooperation. Europeanisation via subregional cooperation works in two main ways. First, there are the outreach policies of subregional groupings in the wider European space. Second, there is mutual integration between the aspirant EU members themselves, something which is ambiguous in the case of the post-Soviet area due to the lack of any real progress so far together with some controversy over how the latest putative mutual integration exercise – the Single Economic Space – will

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[13] On the latter point, the overall ENP funding is set to increase significantly from 2007. In early December 2006 it was announced that the EU (Financial Times, 5/12/06) "is to spend €12 bn (£8bn) on its neighbours in eastern Europe, the Caucasus and North Africa…up by nearly a third since the last budget period".

[14] For further discussion see Dangerfield (2006)

link to furthering integration with the EU. The final section of the article discusses the subregional cooperation issue.

5. SUB REGIONAL COOPERATION AND EUROPEANISATION OF 'EXCLUDED' STATES

Beginning with the outreach policies of subregional groupings, entities such as the Nordic Council have been providing various forms of assistance to EU pre-accession since the early 1990s. Since the actual enlargement of May 2004, those subregional associations made up exclusively or predominantly of post-communist countries - CEFTA, Višegrad Group (VG), Central European Initiative (CEI) - have secured their post-enlargement relevance by focusing their activities and resources on those European states lagging behind in the Euro-Atlantic integration process. The VG is a particularly notable example of the latter.[15] Since May 2004 the Višegrad Four (V4) have increasingly been focusing their joint activities externally and VG is being used as a tool to allow the member states to bring their interests, expertise and experiences into play on EU external policy and in so doing bring some 'value added' to the EU in that domain. The work plan of the (2005-6) Hungarian VG presidency stressed that the West Balkans and Eastern Europe (Ukraine in particular) are priority regions for the VG countries and their mutual cooperation. In June 2005 it was confirmed that the VG countries would (VG Joint Declaration Ukraine 2005, 1) "exchange information on (and co-ordinate where beneficial) bilateral assistance projects and the engagement of Visegrád countries in the twinning co-operation when it is finally offered to Ukraine later this year. In particular joint Visegrád Group efforts will concentrate on institutional development, regional co-operation and development, and implementation of selected reforms. The Visegrád Group countries will work towards closer co-operation between the EU and Ukraine in the area of CFSP, JHA as well as development of economic co-operation, with respect to facilitation of Ukraine's accession to the WTO as well as start of negotiations on a free trade agreement between the EU and Ukraine". The International Visegrád Fund (IVF) is now being deployed outside the VG region itself. For example the VG scholarships are now available to incoming postgraduate students from South East and Eastern Europe countries including Belarus and Ukraine. In addition 'standard' IVF projects are available for projects involving cross-border cooperation between the V4 and East and South East European neighbours.[16] A more significant impact may stem from the introduction (in 2005) of the 'Visegrad Strategic Programme' which enables longer term projects (up to three years duration) and has (International Visegrád Fund, 2004, 2). "exchange and cooperation between the Visegrad Countries and their neighbours" as one of its three main strands.

Albeit operating at the micro-level these aspects of subregional cooperation make valuable if often unnoticed contributions to Europeanisation processes and their value should not be underestimated. Solonenko (2005, 5) has argued that in spite of criticism leveled at it the ENP does have the necessary incentives for ENP states to undertake reform and the critical ingredients of the ENP include, inter alia, an enhanced 'socialisation' process based on people-to-people contacts, educational programmes, sharing of transition experiences, activities to improve 'capacity' of civil servants etc.. It is in this socialisation process in particular that the outreach programmes of the VG and other groupings can make their mark.

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[15] The members of the VG are the Czech Republic, Hungary, Poland and Slovakia.
[16] Standard grants are for projects in excess of Euro 4000, with the IVF supplying no more than 50% of the project cost. In 2004 IVF standard grant awards ranged from Euro 3000 to Euro 52,000.

The second main aspect of this dimension of the Europeanisation process is in the form of subregional cooperation within groupings of EU candidates/aspirants and often including mutual integration processes and creation of multilateral subregional associations. The usual pattern has been for subregional integration to serve as a preparation for EU entry and therefore be an unofficial but important element of the pre-accession process. In the post-Soviet area, there has over the years been considerable rhetoric about subregional integration but little reality. It is still at a rather rudimentary stage and subject to various complications including concerns about how it will link to integration with the EU. Though this is an issue that also affected earlier subregional cooperation agendas in post-communist Europe there is a significant difference due to the participation of Russia. Russia's intention to remain outside the EU affects not only its own preferences for subregional integration in the post-Soviet area but also gives it an interest in shaping how other post-Soviet states balance mutual integration processes and their integration with the EU.

The SES, which is the current mutual integration project involving certain post-Soviet countries, has been in gestation since 2003 but is yet still to actually begin operation. The agreement to form the SES was signed by Russia, Belarus, Kazakhstan and Ukraine at a CIS summit in Yalta on 19 September 2003. The decision on Ukrainian inclusion was taken by the previous (i.e. before the Orange Revolution) administration and the situation today is that Ukraine's participation is a rather cloudy issue. On the one hand there is a gap between the Russian and Ukrainian preferences for what the SES should entail. The Russian agenda proposes a customs union/single market type of integration project with significant institutionalisation and even supranational management of the SES. The Ukrainian preference is for a much more modest exercise and is (Aslund, 2005, 15) " only interested in that part of the Common Economic Space (CES, formed in 2003 together with Russia, Kazakhstan and Belarus) that concerns free trade, while the CES aims for more, including a customs union and a monetary union, as in the EU".[17] There is a second complication which is that the Ukrainian preference for a free trade area only is the position of the presidential wing of the Ukrainian authorities whilst the government and Prime Minister Victor Yanukovich take the idea of deeper SES integration rather more seriously in line with what the Prime Minister calls 'tactical differences' with the President over European integration strategy.

Debates about the future direction of the SES should be guided by past experiences of subregional integration which have developed in the context of parallel engagement with the EU. The CEFTA experience is particularly informative in this respect. Scrutiny of CEFTA (see Dangerfield 2004 and 2006a) has shown that subregional integration complements rather than impedes integration with the EU and that its success was ultimately predicated on the fact that it was largely restricted to free trade and market integration. In this way, CEFTA not only enabled and resulted in mutual integration between those ECE states joining the EU at the same time, but also made it possible for states also having a free trade agreement with the EU in place to participate even though they had a slower EU accession timetable.[18] For example Croatia joined CEFTA in 2003 despite not even being an EU candidate at that stage. Despite the fact that all the original members of CEFTA have since departed, and Bulgaria and Romania will terminate their participation on 31 December 2006, CEFTA is still very

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[17] SES is sometimes referred to as CES

[18] CEFTA began life as an integration tool for Visegrad states. By the time it downsized in May 2004 its membership included five states who left to join the EU (the Czech Republic, Hungary, Poland, Slovakia and Slovenia) along with Bulgaria, Romania and Croatia.

much a going concern having shifted its focus to South East Europe and now just beginning a new role (see below) as the vehicle for multilateralising the trade liberalisation project for the states covered by the Stability Pact for South Eastern Europe (SP).

In the post-Soviet area context then, the key condition is that mutual economic integration should not go further than the degree of economic integration that all of the participating states have reached with the EU. The reasons for this are threefold. First there is the need to avoid disruptive termination or reversal of economic integration in the event of any of the parties moving significantly ahead in integration with the EU.[19] Second, a more far-reaching integration plan for the SES at this stage would place it on a collision course with further EU integration and clearly de-rail progress towards reaching a free trade agreement with the EU. In the context of Prime Minister Yanukovych's statement of 14 September 2006 that Kiev's plan to join NATO was now on hold, it was also reported that (*Financial Times,* 15/9/06) that "while Kiev would like a trade deal with Brussels, EU officials warn this will be impossible if Kiev joins a customs union with Russia. Moscow is promoting such a customs union with several former Soviet neighbours". Third, there must be strong doubts about whether the SES can yet operate at the level of a single market and whether independent SES integration can best serve the long term economic development of its participants and therefore be worth the inevitable penalty of sacrificing the chance of a free trade deal with the EU. An examination of the profile of the SES countries (Table 2) suggests that for the foreseeable future it will be difficult to independently achieve genuine intensive economic integration. Table 2 combines some of the relevant data from Table 1 with some extra indicators. The first addition is World Trade Organisation (WTO) status which normally acts as an important gauge of whether the country's business environment will guarantee responsible participation in free trade agreements. Second is control of corruption which also very closely linked to whether the economy is genuinely competitive and rule-based which in turn underwrites ability to engage in regional integration.[20] Table 2 shows that the relevant indicators simply do not at present match up to what is required to practice genuine free trade let alone a deeper economic integration programme. Sweden is included simply as a benchmark illustration of how these indicators look for countries 'qualified' to participate in sophisticated programmes of cross-border economic integration. Clearly SES integration should be externally anchored to a parallel gradual process of integration with a more developed regional economic space. In this connection the example of Ukraine is interesting as is it worth noting that its indicators have shown sharp positive movement since its post-2004 reform programme got under way in the context of engagement with the EU action plan.

Clearly the most appropriate and practical strategy for Ukaine is to engage with the SES but only to the level of a free trade area. And preferably to push to make the SES free trade agreement conditional on all parties having WTO membership and a free trade agreement with the EU. These criteria would give a SES free trade area the chance of working properly and most easily enable mutual integration of SES countries to proceed in tandem with integration with the EU. This is exactly what has happened in the east-central and SAP zone cases. Of course such a strategy would involve making a hard political choice and the key question for the future is whether Ukrainian politics able to come up with that solution? This whole business of an EU-oriented or SES-oriented Ukrainian integration strategy is of course

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[19] The CEFTA experience also suggests that other than a customs union move, this may be impossible for practical reasons anyway. See Dangerfield (2004).

[20] Corruption indicator is taken from the 2006 World Bank database of governance indicators. The range is from -2.5 (most corrupt) to +2.5 (least corrupt) See:
http://info.worldbank.org/governance/kkz2005/year_report.asp?yearid=1

a highly significant political issue in Ukraine. One interpretation of the choice Russia is facing Ukraine with is this: walk away from the single economic space and be prepared for a purely commercial relationship with Russia. This would involve Ukraine getting its natural gas from Russia at full world market prices. The short term costs of this would obviously be considerable but the long term developmental advantages could make it pay ultimately. Charges that Russia is using energy dependence as a lever to impose closer integration are inconsistent with the idea that the SES can become a genuine case of economic integration and is in fact more likely to be reminiscient of CMEA-style political economy.[21]

Table 2: The 'Single Economic Space' - A Sub-Optimal' Integration Area?

	WTO STATUS	*CONTROL OF CORRUPTION*	*FREEDOM INDEX*	*REGULATORY QUALITY*	*TRANSITION RATING (EBRD)*
BELARUS	OBSERVER	-0.90	7/6	-1.53	1.81
KAZAKHSTAN	OBSERVER	-0.94	6/5	-0.47	2.93
RUSSIA	OBSERVER	-0.74	6/5	-0.29	2.96
UKRAINE 2004	OBSERVER	-0.96	4/3 (2005)	-0.48	2.81
UKRAINE 2005	OBSERVER	-0.63	3/2 (2006)	-0.26	2.89
SWEDEN	MEMBER	+2.10	1	+1.47	N/A

A final element of this part of the discussion concerns Moldova. An ENP country but not signatory to the SES, Moldova is in fact occupies an interesting in-between position that questions the logic of separate subregional integration programmes for ENP and SP states. Trade liberalisation has been an important element of the SP programme for some time now and Moldova has been part of the network of free trade agreements put in place for the SP area, which makes for a rather complicated situation as far as any potential Moldovan participation in the SES project is concerned.[22] As mentioned earlier, the next stage of intra-SP trade liberalization is scheduled be a multilateralisation of free trade via the'big-bang' enlargement of CEFTA. The *Agreement on Amendment of the Central European Free Trade Agreement* was signed by six of the SP states in Brussels on 9 November 2006.[23]

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[21] Russia is also reported to be subjecting even Belarus to politically motivated energy price rises and is (*Financial Times*, 14/12/06) "penalising Belarus for not delivering on pledges of closer integration with Russia, including the currency union and selling half of Beltransgaz, the Belarus gas distributor, to Gazprom".

[22] Even if the SES results in only a free trade area a system of certificates of origin would be needed but if the SES is based on a customs union or more then all SES countries will have to match Moldova's trade provisions with other SP countries or Moldova's trade arrangements with the SP area will face very serious disruption.

[23] Serbia and Bosnia and Herzegovina delayed signing due to some unsolved problems on fiscal discrimination and agricultural concessions respectively. It was however anticipated that they would be in a position to sign at a meeting of SP states Prime Ministers scheduled for 19 December in Bucharest. See Stability Pact: Press Releases available via: http://www.stabilitypact.org.

'CEFTA 2006' - as the new agreement will be known - is expected to enter into force in summer 2007 and will clearly further embed Moldova into the subregional integration complex in South East Europe. Equally significantly, it also raises the important question of whether Ukraine and other post-soviet states could join CEFTA. The original CEFTA membership conditions have been significantly relaxed to allow the participation of all SP states and this certainly opens the door to ex-Soviet republics. Ukrainian accession in particular should be eminently possible under the new CEFTA accession criteria.[24] Whether an enlarged CEFTA could become an alternative option to the SES project is of course a much more contentious question. There is a history of political manipulation around CEFTA, with Croatia, for example, having consistently promoted the idea of CEFTA as the tool for multilateralising intra-SP trade in order to avoid being thrust into a discrete economic integration association for South East Europe (anathema to Croatia because of a mixture of associations with 'recreating Yugoslavia' and EU ambitions). Yet there was the sound practical argument of why create new economic associations when vehicles fit for purpose are not only already available, but also require certain standards to be met that are needed anyway if the integration objectives are to be realistic? Sentiments which have been expressed in the past that 'CEFTA is a finishing school for the EU' may be a little strong, especially for the reconfigured CEFTA, but the fact that CEFTA states must have, or be on course to get, a free trade agreement with the EU is a condition that builds in an automatic compatibility with further integration with the EU. Thus there is indisputably a strong case that WNIS debates on strategies for mutual integration should seriously explore the CEFTA option.

6. SUBREGIONAL INTEGRATION AS A POSSIBLE ALTERNATIVE TO EU INTEGRATION?

Given the current difficulties surrounding the EU accession process – not only for post-Soviet countries faced with uncertainty about whether a membership perspective will materialise but also for the West Balkans faced with the certainty that the wait for EU entry will in most cases be a long one – how realistic is it to think about other options to address transition and achieve economic development? Of course this is not a new conundrum but it is an enduringly difficult one to address and as yet no credible strategic alternatives have been put forward. The fact is that EU integration has emerged as the key instrument of the transition and development strategies of all post-communist countries, at least in central and south east Europe, not simply by default but because of the sheer difficulty of envisaging an alternative strategy without successfully challenging all conventional economic and policy wisdom and ignoring the global context which currently confronts all economies.[25] Opening markets to competition from EU producers, exploiting new export opportunities in the EU market and hoped-for influxes of western investors in the production capacity have been seen as key ingredients in restructuring for economic development and growth. Moreover, as well as trade liberalisation, engagement with the EU pre-accession process also fosters incorporation into the pan-European economic space that small economies need if they are to successfully attract inward investors. It also offers – in terms of both design of reforms and practical and financial support to realise it – a transition blueprint. With special reference to ENP Dodini and Fantini

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[24] Let us not forget either that Ukrainian links with CEFTA are not new. In the mid-1990s Ukraine was pushing hard for CEFTA membership and attended CEFTA summits as an observer in 1996 and 1997 and in fact lodged a formal application to join CEFTA in 1997.

[25] This is without even considering the huge political momentum behind the EU-oriented development strategy.

(2006, 516) remind us of "a legacy of regulations that, even after a decade or more of reform, are inadequate to the needs of modern economies…ENP offers countries a ready-made regulatory framework. For countries wishing to put in place a modern regulatory framework, adopting the acquis as a reference is likely to be easier than developing a new one from scratch."

Since a strategic alternative – if one exists - would reach into almost every aspect of economic governance such a discussion is way beyond the scope of this paper. However, assuming open economies would be maintained (no model based on closed economies could surely even be considered) one question which can be raised here is whether subregional economic integration could be a viable element of an alternative transition/development strategy to EU membership? We have already mentioned some deficiencies of the putative SES which at the current time does not seem to be underpinned by sufficient legal/regulatory quality to allow market integration. For the time being, this leaves alternative options of drifting back into dirigistic models which have known only failure in the past and have usually reflected asymmetric power relations and economic dependency. The 'big-bang' enlargement of CEFTA and the projected role of 'CEFTA 2006' as the vehicle for multilateral trade liberalisation between south east European (and essentially Stability Pact) countries raises the question of whether the new set of CEFTA countries could concentrate on mutual integration as an alternative economic space to the EU?[26] CEFTA 2006 is barely off the drawing board and at this stage therefore it is not yet even known whether it will be sufficient to successfully further develop market integration in south east Europe. However, it is clear that subregional integration cannot replace the *development and modernisation* role currently ascribed to EU integration. As well as the examples of past European subregional integration exercises being unable to avoid development of close integration with the EC/EU (EFTA, the original CEFTA[27]), Inotai's earlier prognosis of the prospects for independent subregional integration in Central Europe seems equally relevant for CEFTA 2006. Inotai (1997) wrote that any agenda to substitute subregional integration for engagement with a wider integration framework (i.e. the EU) can only arise under certain conditions. First, if the necessary 'material conditions' for it to work effectively are present, that is if a development/modernisation anchor (defined as an economy or sub-group of economies sufficiently large, prosperous and technologically advanced to support growth and development of integration partners by accommodating a significant share of their trade growth and being a major source of foreign direct investment) is located in the subregion. Second, the presence of an overwhelming external threat (or complete lack of any external integration options) may impel countries to cooperate though this arrangement will be second best and liable to unravel when external conditions change. Third, subregional cooperation may occur as independent preparation for joining a wider, more advanced, regional integration scheme and is viable so long as the cooperation is based on adjustment to the rules of the larger integration. Since none of these conditions would apply to a CEFTA 2006 area looking to develop independently of integration into the EU we can conclude that CEFTA

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[26] Of course, the extremely doubtful prospect of the necessary wholesale political commitment to a subregional integration solution (especially in the context of Croatia's relative proximity to EU entry and to a lesser extent that of Macedonia) renders this a largely hypothetical question.

[27] It is well documented (e.g. Dangerfield, 2004) that original CEFTA experience provided very firm evidence that independent integration-deepening at the subregional level is difficult to achieve. Early (mid-1990s) proposals to move CEFTA from a free trade area to a Common Market were rapidly shelved and there was little progress on even those non-tariff barriers which remained on the CEFTA agenda – state aids and public procurement. EU rules provided the blueprint for removing these non-tariff barriers and CEFTA cooperation on these issues was ultimately restricted to sharing experience on adapting to the EU system rather than achieving any specific CEFTA solution.

2006 will follow the pattern of its post-communist antecedents and be limited to a complimentary and support function tied to and dependent on the EU membership endeavour.

7. CONCLUSIONS

The EU enlargement scenario is somewhat confused at present and the only certainty is that further expansion will inevitably be a long term process. The latest and impending accessions have arguably compromised the EU as an optimum integration area, or at least fed a discourse focused on the alleged harm rather than benefit further new members could bring. The key challenge for European states without a current membership promise is therefore essentially about political strategies for keeping EU integration and the associated reform measures on track. This challenge also applies to those states already in the enlargement process but still at relatively early stages (Serbia, Montenegro, Bosnia and Herzegovina, Albania) and facing a long wait for accession. In the meantime, the Europeanisation processes taking place via EU measures/programmes in the framework of or in lieu of a membership perspective are vital especially as they replicate the preaccession process. For all EU aspirants, whether or not a membership offer is on the table right now does not alter the obligation to undertake the massive programme of reform and transformation entailed by EU membership preparation. At the current stage, pressure on the EU to increase the resources on offer to assist that transition and open up as many EU programmes as possible in the meantime seems a much better option than wasting energy on fruitless attempts to fast-track membership itself. In current conditions there is no theoretical or empirical evidence that subregional cooperation can provide the development impetus associated with closer EU integration, but it can continue alongside the primary Europeanisation mechanism of EU engagement. The part of process that is based on the involvement of 'external' subregional groupings poses no difficulties for furthering EU engagement and is in fact designed to support that process, but the dimension based on mutual integration needs to be managed more carefully. Programmes of intensive integration aiming to leap ahead of the state of play in integration with the EU are likely to incur political damage in the form of holding back advances in relations with the EU. They are also likely to encounter practical difficulties as past experiences suggest that programmes of subregional integration are most effective when running a parallel and coordinated course with EU integration. In this connection some imaginative thinking by officials in post-Soviet states and in western circles alike (i.e. SP officials) could open up the possibility that CEFTA, having already shifted its focus from Central to South East Europe, could take in Eastern Europe too.

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BUSINESS ANGELS IN SCOTLAND AND POLAND: THE DEVELOPMENT OF AN INFORMAL VENTURE CAPITAL MARKET

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1. INTRODUCTION

Recent years have seen a greater emphasis across the European Union (EU) on support for small and medium enterprises (SMEs) in the belief that these are the main creators of new jobs, are more innovative, assist the competitive environment, and provide the dynamism for growth within both regional and national economies (see 'White Paper on Competitiveness', CEC, 1993). The expectation has been that this should enhance the competitive position of the EU in the global economy through enhanced innovation and entrepreneurship. As well as seeking to close the job creation gap with the United States (Danson et al., 2006), the imperative for a new dynamism and growth in the EU has become even more pressing with recent enlargements in 2004 and 2007 through the accession of the transition economies of Central and Eastern Europe (CEE) especially.

These recent expansions of the EU have prompted significant budgetary reforms, leading to restrictions on the support available to the SME sector. Such support has been defended on the grounds of the market failures which disproportionately impact on the SME sector. Of especial significance here is availability and access to equity finance. Across the continent, the supply of start-up and early stage equity finance has become more acute due to changes in the banking sector which have made lending to small enterprises unattractive for banks. The primary factors underpinning the banking sector's position on SMEs are the low margins, high overhead costs and risk involved; additionally, venture capital funds are often not able to accommodate the large number of small deals with heavy due diligence requirements. A potential solution to these problems is informal investment markets, where finance is provided by investors known as 'Business Angels'.

Business Angels are private individuals (or syndicates) who supply venture capital to businesses, mainly small start-up firms, in an informal investment market setting. This paper presents a preliminary analysis from the first phase of a research project that explores the emergence of Business Angels in the new EU member states of Central and Eastern Europe. It focuses on case studies conducted in Poland, and examines the role and function of Business Angels in the context of a transition economy. It undertakes a comparative analysis of this market with the established one of Scotland: identifying policy issues related to the development of a Business Angel market in Poland and drawing upon an earlier research project on Scotland's Business Angels. In particular, the analysis addresses the important role that Business Angel networks play at national and international levels in supporting the entrepreneurial process. Thus, the paper informs the analysis of key functions that Business Angels can play in addressing problems faced by new small businesses in an emergent economic and investment environment.

From our previous work (Danson et al, 2006; Paul et al., 2007), it is apparent that business angles and their networks are in different states of development within the economies of the EU. In the context of the market failures above, their more significant role in the venture capital suggests a need to consider how they are operating and their effectiveness in different environments. There is a rationale, therefore, in looking for lessons in more mature markets and whether these can be transferred to other contexts. In particular, the experiences of economic restructuring in Scotland since the 1970s have some echoes with those facing several of the countries of CEE (Danson et al., 2001). So Poland, as in Scotland, has also been losing its traditional industries and pursuing FDI attraction strategies, whilst promoting an enterprising economy. In attempting to create a more entrepreneurial culture and encourage individuals to establish new businesses, start-up companies in Poland are faced with the immediate issue of raising capital. It is argued below that Business Angels are increasingly seen to be an important, if not the most important, source of finance for new and growing businesses. With the establishment of a national Business Angel Network (BAN) and business angel syndicates, we would argue that Scotland has a mature market for the provision of equity finance. This mature market, as analysed below, has continued to evolve and provides a good example from which emerging angel markets in countries such as Poland can learn valuable lessons.

The remainder of the paper organised as follows: first, an introduction to the concept of Business Angels, offering an overview of their role in the venture capital market more generally; this is undertaken within the context of an established western European economy – Scotland so that there is an examination of business angels and entrepreneurial finance initiatives in Scotland highlighting the activities of business angel networks; next, the

development of business angels and their networks in Poland is charted, establishing the institutional and financial support, and the development of venture capital before business angel networks in Poland are considered; and finally, the paper finishes with a comparison of Scotland and Poland from which conclusions are drawn from the analysis.

2. BUSINESS ANGELS IN SCOTLAND

Continuing the policies established at the Lisbon summit there is an ongoing desire at the EU level to promote entrepreneurship and Small Medium Enterprises (SMEs). This desire arises out of the acknowledgement that the continued development of the internal market and establishment of a knowledge based economy alone will not automatically drive innovation, competitiveness and growth. It is argued that this task falls to the continued development of an entrepreneurial climate in which new high growth businesses can flourish. These new high growth businesses are necessary to exploit evolving market opportunities developing innovative goods and service via effective and innovative processes. It has been established that SMEs are the source of the majority of new jobs and that they are more innovative per £ spent on R&D. It has also been established that SMEs suffer in terms of market failure in comparison with larger businesses hence intervention has long been accepted as being appropriate for SMEs. An area of significant market failure for SMEs has been in the area of finance. This problem was highlighted in the Lisbon strategy which calls for:

"*a regulatory climate conducive to investment, innovation and entrepreneurship: facilitating access to low-cost finance, improving bankruptcy legislation, taking into account SMEs' specificities (2000), improving the industrial framework, encouraging responsible corporate governance*" (Kok 2004 p.28).

The Kok Report argues that there is limited availability of finance available for setting up and developing businesses in Europe. This problem is further exacerbated by the lack of availability of risk capital for companies within the EU Access to lending capital particularly by start-up businesses is difficult as they cannot easily meet the demands for guarantees made by traditional financial institutions. Additionally, within the EU it is argued that the risk capital available is often short-term, particularly for start-ups. Kok further highlights the separation of many funding programmes, which makes it difficult for SMEs to locate the appropriate funding and opportunities available. He argues that:

"*There is insufficient mobilisation of capital, but also the infrastructure to channel more capital to investment opportunities is underdeveloped*" (Kok, 2004 p.30)

These findings reflect the earlier Green Paper 'Entrepreneurship in Europe' (European Commission 2003). In response to these documents the European Business Angel Network (EBAN) issued a White Paper that put forward proposals on improving the environment in which business angels operate. EBAN believing that Business Angels, through Business Angel Networks, can help reduce the equity gap experienced by new growth businesses.

In attempting to raise finance for a business venture, entrepreneurs typically utilise their own limited capital such as personal savings, home equity, sale of personal assets and loans from friends and family (Van Auken). Once these personal networks have been exhausted

entrepreneurs will seek to raise finance from other agencies typical banks. It is at this stage they will typical experience the 'funding gap'. The 'funding gap' arises principally due to the lack of experience of the new business. They typically are not yet profitable, often lack tangible assets and are characterised by a high risk of failure. Banks are unwilling to invest under such conditions, and, if investments do take place a high rate of interest is often charged reflecting the high-risk premium attached to such investments. Debt financing, if available is not an attractive option (Mason and Harrison 1996); the situation has been exacerbated further by the formal venture capitalists losing interest in investing in start-ups. Formal venture capitalists have increasingly concentrated on larger deals where transaction costs are comparatively less (Lerner 1998; Bank of England 2001). To meet this unsatisfied demand for finance from new ventures and early-stage ventures, informal investment markets have developed in a number of countries. Business angels supply the funds that sustain these markets by investing in businesses in return for equity stakes.

2.1. Angels in Scotland

In this section we will discuss the findings of the largest survey conducted into Business Angel activity in Scotland. This survey was conducted by Paul et al., (2003) and whilst the reporting of this survey noted the problems of comparing informal investors in differing countries it was necessary to highlight the differences and similarities they found with the existing literature. Business Angels located in Scotland fit broadly with the age and sex profiles that have emerged in other developed countries, namely, Canada (Short and Riding 1989), Sweden (Landström 1993), Finland (Lumme et al.1996), Norway (Reitan and Sørheim 2000). A key different finding, however, was that Angels in Scotland tend to have a background in large businesses rather than in small or entrepreneurial businesses. The existing literature found that a majority of angels have gained small business experience by, for example, founding a business. In their reviews of the literature on informal investors, both Freear et al., (1997) and Feeney et al., (1999) found that angels typically had business start-up experience while, in Norway (Reitan and Sørheim 2000) and Singapore (Hindle and Lee 2002) angels were found to be successful entrepreneurs in their own right. This key difference with the established literature maybe due to the past industrial structure of Scotland, dominated by a reliance on subsidiaries of multi-national corporations and, compared to the South East of England, for example, a lack of new firm formation. (Scottish Enterprise, 2000). In the case of Angels in Scotland it can be argued that some informal investors gain their understanding of the realities of small business only when they become angels. It is arguable that such angels would be in a better position to add greater value to a business if they had been able to gain an understanding of the SME sector prior to making an investment. The lack of 'Investment Readiness' is a term usually used by Angels to justify not making an investment. It could perhaps be argued that a further problem arises with 'Investor Readiness'. The extent, to which angel investors have the experience and understanding of small businesses, is an important issue and overcoming this supply-side knowledge shortfall would assist the effective operation of the informal market.

The UK has a long history of initiatives based on public expenditure or the tax system, or a combination of both, aimed at filling the equity gap which SMEs confront (see Cressy, 2002 for a useful discussion). If more investments between angels and entrepreneurs are to take place, it is important to identify those aspects of the informal market upon which public policy initiatives should focus. The findings of Paul et al, (2003) suggest the need to address not only supply-side but also demand-side deficiencies. On the demand-side, it was found that, while angels have funds available, there is a shortage of sufficiently attractive investments and, in this respect, an

angel's confidence in the entrepreneur or team behind the project is paramount. Parallels can be drawn with the formal market where Dixon (1991) found similar evidence and, as a result of their pan-European study of the investment criteria used by venture capitalists, Muzyka et al., (1996) recommended that entrepreneurs seeking funds should concentrate on building the management team and worry less about packaging the financial aspects of their proposals. Paul et al. (2003) argue that their findings suggest that the same advice can usefully be given to entrepreneurs seeking funds from business angels. Public policy initiatives should therefore be aimed at not just providing entrepreneurs with help on preparing business plans but also at their presentation skills.

Scotland has also witnessed the establishment of a Business Angel Network (BAN) partly supported by public funds. The BAN is known as the Local Investment Network Company (LINC). The role of LINC is to match investors with companies, and vice-versa, which assists the deal making process. Any individual can join after paying a membership fee. By vetting potential business investment opportunities LINC lowers transaction costs by reducing the risk element of any potential investment. Furthermore, when unknown parties first meet there is an inevitability of mistrust. LINC by conducting initial screening operations can reduce this high element of mistrust.

The main motivation of Angels in Scotland was to achieve capital growth, a finding in common with the established research for example Mason and Harrison (2002a), Secondary motivations included non-financial reasons such as the concept of 'giving something back' and, while expressions of altruism may be met with a degree of scepticism, Freear et al., (1995) found that the expected returns required from an angel investment were lower when compared to returns from venture capital funds. The term 'psychic income' has been utilised to explain this phenomenon. Early research by Wetzel (1983) also indicated that some angel investors were prepared to accept lower returns or assume higher risks when the ventures were expected to, for example, create jobs in their communities or result in socially useful technology. There appears to be a reservoir of goodwill that could usefully be exploited on behalf of some of the Angels in the Scottish survey and reinforced by the existing literature.

The survey of Angels in Scotland found that they were of the 'hands-on' variety, that is, they wanted to be involved in the running of the businesses in which they invested. The established literature suggests that this is usually the case and that they utilise their business skills and contacts to offer strategic and, in some cases, operational support to the businesses in which they have invested (Wetzel 1983, Harrison and Mason 1992, Freer et al, 1995, Mason and Harrison 2000b). However, the evidence is by no means conclusive. Kelly and Hay (1996) note that a substantial minority prefers to manage their investments in a passive fashion. Berger and Udell (1998) report continuing disagreement on this issue while Reitan and Sørheim (2000) found that Norwegian informal investors were relatively passive in terms of the relations with the companies in which they invest. There are two possible interrelated reasons for this. Firstly, it is a way of reducing risk and protecting their investment. Secondly, and given the survey results, Scottish Angels prefer to invest close to home, with a majority wishing to make investments within 100 miles of their base. Although it has been identified that entrepreneurs benefit from the involvement of experienced outsiders (Deakins et al., 2000), there is less evidence as to the benefits an active angel can bring. A main feature of the assistance that Angels in Scotland were able to bring to the businesses in which they invested was the leveraging of additional funds. With their high burn rates of capital, early stage businesses often require the infusion of several rounds of funding whose magnitude and timing cannot be fully anticipated in advance (Sapienza and Korsgaard 1995). Well connected

Angels, possibly using contacts through LINC or Angel syndicates maybe in a good position to do this and limit the time consuming searching which could fall on the entrepreneur.

3. BUSINESS ANGELS IN POLAND

This section of the paper will consider the development of Business Angel networks in Poland both at national and regional level using Silesia as a case study region. The analysis begins with some broad background information on the institutional and financial support for entrepreneurial activity. We follow this with a commentary on the development of the contemporary venture capital market before turning our attention to the characteristics of Polish entrepreneurs and Business Angels.

Privatisation as well as new firm formation gave rise to a large private sector in Poland. Although there are various forms of privatisation it is true to say that it is the entrepreneurs who would like to play an increased role, and further support the transition from a command to a free market economy. Business decisions concerning new start-ups were significantly affected by Poland's transition programmes, launched on January 1st 1990, which eased regulations, removed many restrictions, liberalised prices, and lowered entry barriers for private business. However, there seems to be a discrepancy between the degree of interest expressed by the entrepreneurs and their actual involvement in the privatisation process (Grabowski et al, 1992).

The employment trends in the private sector, and especially in SMEs, since 1990 have been mostly favourable (Roberts et al., 1997; Koen, 1998, PAED, 2004; Jackson et al., 2005). The vast majority of private enterprises expanded in terms of the volume of business and employment; the SME sector providing work for many people who were made redundant by large, state-owned enterprises. Towards the end of the 1990s the rate of growth of the SME sector (measured by the number of enterprises) and the share of SMEs in GDP generation grew at a slower rate (PAED, 2001). However, Polish SMEs created jobs for young people, who would otherwise be unemployed, and contributed 48.6% to GDP in 2002 (PAED, 2004).

As in other EU countries, the 'one-man' business is also the most frequent size of business in Poland. Although it is the foreign owned companies that predominantly supply the goods and services to the Polish market, increasingly a growing number of very small enterprises and sole proprietorships (micro-enterprises) also play an important role in this process. They are a major supplier of employment both legal and illegal or clandestine, and provide part-time work. Clandestine employment became most prominent in the first half of the 1990s in Poland and generated around 8.1 per cent of Polish GDP in 1994, also creating a burgeoning 'grey economy' (Grabowski and Jedrzejowicz, 1995). The employer here may be a household or a company (registered or not). Many new businesses started up and still are driven by necessity due to major problems resulting from privatisation. These new firms require some initial capital that is usually supplied from an entrepreneur's own savings (77 per cent in 1991) or family resources (22 per cent in 1991), and the use of their 'know how' due to limited access to and reliance upon the banking sector (Grabowski and Kulawczuk, 1992; PAED, 2004).

It was clear, that new firm formation was crucial to the sustainable economic development of Poland in terms of its contribution to GDP, job creation and the containment of increasing

unemployment throughout the 1990s (Ministerstwo Gospodarki, 1999). However, regional disparities measured by economic growth are diverse with the 'Eastern Wall' performing significantly below the national average; while the northern regions are registering successful economic expansion. This issue is regarded as a major problem for new firm formation as a policy instrument (Ministerstwo Gospodarki, 1999; Jackson et al., 2005; PAED, 2004).

3.1. Institutional and financial support

In economies experiencing market failures, a thriving private sector depends on support for SMEs and entrepreneurial activity. This includes State sponsored funding schemes, institutional support, training, information services and technology support. In the early stages of transition, most of this activity stemmed from foreign aid, resulting in a whole host of programmes, schemes, initiatives and institutions (Blazyca et al., 2002).

The lack of institutional and financial support for small to medium size private enterprises in Poland was especially acute at the beginning of transition. A study conducted by Grabowski et al in 1992 surveyed 272 private enterprises in three regions of Poland (Gdańsk, Łódź and Kraków) which established that only 16. 9 per cent of the firms applied for bank loans. Among the main frequently cited reasons for not using this facility were high interest rates (70 per cent of all firms), uncertainty over future interest rates (37 per cent of firms), high and unrealistic collateral required by the bank (36 per cent of companies), and banks' unwillingness to provide loans for SMEs (12 per cent of respondents).

There are also other Polish studies (Pawlowicz, 1995) that try to assess problems that banks face while measuring the credit worthiness and efficiency of their potential client enterprise. Here banks use three main criteria: the company's product and its relative competitive position in the market; managerial staff and its experience, and firm's ability to generate profit. Therefore, (as Pawlowicz, 1995 p.5) observes:

"…in classifying particular enterprises as efficient …banks are fully aware of the responsibility for the appropriateness and adequacy of their decisions".

However, despite signs of new institutional developments for entrepreneurial support, as public sector organisations and business networks were created they were to a large extent under-funded. This caused frustration among their employees as well as among potential clients (SMEs). As for EU funding, although Poland has qualified and received substantial pre-accession funds, the management and administration of these projects was inefficient. Many programmes were either poorly coordinated or duplicated across regions and institutions. This led to a situation where some regions were over- provided with programmes and funds while others experienced major shortfalls.

As Grabowski et al, (1992, p.36) stated:

" The greatest social cost is the creation of a false impression that something is being done as de facto very little is being done. Everything starts and ends with finances. The rest is just a pretence."

However, the situation gradually improved and by the mid-1990s SME promotion and new firm formation gained momentum. In 1994, there were 1,000 organisations and institutions acting in the area of SME promotion in Poland (including 120 regional and local development

agencies and foundations; 50 centres of innovation and enterprise promotion; 110 advising, information and training institutions; 180 Chambers of Commerce; 26 Chambers of Crafts, and 130 various other economic associations).

Although the number of institutions has grown steadily, publicly funded programmes were less prominent. Their ranks were filled with profit-oriented institutions working for business development, such as private consulting firms that continue to escalate in Poland (Tamowicz, 2004). Until recently, there were only two major publicly funded programmes providing SME financial support: the Labour Offices' loan scheme for the unemployed who want to establish their own businesses; and the Loan Guarantee Fund established by the Ministry of Finance targeting all small to medium size enterprises. However, at the end of 1990s support for SMEs and the private sector strengthened, as reflected in various governmental policy documents (Danson el al., 2001). By 2000, preparations for EU membership meant that the government's position towards entrepreneurial activity and SMEs was further re-focused on emphasising greater private sector involvement. Therefore, by 2002 the majority of small firms were Polish owned and increasingly financed from private sources (PAED, 2004).

Following EU accession, support for entrepreneurial activity in Poland was steered by the Lisbon strategy with an emphasis on the need to boost entrepreneurship, productivity, employment, and competitiveness. In line with an overall aim of making Europe the world's most dynamic and competitive knowledge-based economic area, new initiatives in this area stem from the 2003 Green Paper on Entrepreneurship and the Commission's Action Plan on Entrepreneurship published in 2004. Its five policy areas comprised: entrepreneurial mindset, incentives for entrepreneurs, competitiveness and growth, access to finance and red tape will have a strong impact on Poland. As Grabowski (2005) observes:

"(this) current year is crucial for the development of new strategies and priorities for entrepreneurial activity in the next 5-7 years".

Despite the growing number of institutions encouraging entrepreneurial activity the financial gap for its support is still considerable. The problems are caused by unrealistic demands imposed by the banks (as discussed earlier) and by entrepreneurs themselves, who submit ill prepared business plans or provide non viable projections of their future profits which the banks reject.

Therefore, the next section will address some of the issues associated with provision of funds for new ventures which can help close the existing financial gap.

3.2. The development of venture capital

The number of studies examining venture capital activities in the CEE region (Poland in particular) has been growing in recent years. However, the coverage and understanding how this operates is inadequate (Klonowski, 2006). Although Poland represents a relatively new market for venture capital and private equity institutions, it has established itself as a market leader in CEE Europe since 1998. Therefore, Poland provides an interesting example worthy of further research.

At the beginning of transition and at the early stages of the privatisation of large state owned companies, investment funds in Poland were in their infancy and therefore played only a small role in these processes (Tamowicz, 1995). In addition, the provisions of previous

legislation during the immediate post-communist transition period were insufficient to promote the functioning of venture capital funds. The first legislative change took place on February 21, 1998 with the introduction of the Investment Fund Act which made some provisions for closed-end investment funds. A further amendment was introduced on 22 March 2001 when the Polish government introduced an amendment to the Act on Investment Funds (CEC, 2002). Until then, only two closed-end investment funds were operating in the Polish market and could be regarded as similar to venture capital funds. The amendment allowed for a new type of investment fund, that is a specialised closed-end investment fund created by investment fund societies. The whole process was further facilitated by a consolidation of the Polish banking system and the creation of pension funds.

As the Polish economy and the private sector grew steadily they became more and more attractive mainly to large international venture capital companies. Therefore, not surprisingly a majority of venture capital (in excess of 90 per cent) comes from abroad. By the mid-1990s, 12 companies had conducted venture capital type activities and managed total capital funds of around $660 million (Tamowicz and Stola, 2003). At the end of 1990s, the Polish venture capital market was attracting such international players as 3TS Venture (with 3i); Baring Communications Equity; and Environmental Investment Fund (Grzywacz and Okonska, 2005).

 However, at the same time the Polish government's efforts to stimulate endogenous venture capital were intensifying (Tamowicz, 2003). The first venture capital/private equity operations began in 1990, with the establishment of 'the Polish American Enterprise Fund'. The same year saw the launch of a small 'Danish Fund for Central and Eastern Europe and Economic Initiatives' followed by the establishment of a small 'Society for Social and Economic Initiatives' in 1991 (with the involvement of French capital among others). In March 1992, Caresbac-Polska, created with EBRD participation and US sources, marked the foundation of a venture capital market that combined foreign aid and governmental sources. Most of the funds described above where the consequence of 'bottom up' initiatives and resulted from emerging business opportunities. In parallel, the Polish government in a 'top down' manner created a number of other funds such as the National Investment Funds, and the Agency for Industrial Development (Agencja Rozwoju Przemyslu). Although these funds function along the lines of venture capital, their origin and rationale are different, since they assisted in government led restructuring and privatisation processes (Tamowicz, 1995).

 Despite this expansion of the venture capital market, Polish venture capital firms have a very small share of the market (3 per cent), and are still reluctant to invest in small start-up companies due to a continued perceived high risk in the SME sector according to the Polish Private Equity Association (Zwierzchowski, 2004). More importantly, venture capital firms set up minimal investment levels of millions of dollars which are far too high for start-up firms. Thus, most new small and micro-firms are thrown back upon self-financing sources and find access to credit and capital for growth restricted (PAED, 2004).

At the beginning of 2000, almost 92 per cent of SMEs were established from an owner's or owner's family funds, with the term 'venture capital' being relatively unknown among Polish entrepreneurs as only 20. 8 per cent of them knew what it meant (Bobinska, 2002).

Thus the role of Polish entrepreneurs and endogenous venture capital provision is crucial for the SME sector in Poland, with a growing potential for Business Angels involvement.

3.3. Business Angel Networks in Poland

The term Business Angel is relatively unknown in Poland although the phenomenon of private investors providing funding for business ventures is not a new one (Nasz Rynek Kapitalowy, 2004). Polish Business Angels have the same aims and operate along similar lines as their counterparts in the West. Although their activity is in line with the Lisbon Strategy of enhanced entrepreneurship, their functions in Poland are much wider. As mentioned earlier, venture capital and equity markets in Poland remained underdeveloped in the early 1990s, and Polish private entrepreneurs were often either inexperienced or unfamiliar with the way venture capital functions. Therefore, Polish Business Angels are faced with much greater challenges than their western counterparts. They also fill an important investment gap for new ventures that still exists in Poland. Polish entrepreneurs seeking funds from banks and similar institutions often face an additional obstacle as banks look for collateral or a guarantee that is equal to the sum of money they wish to borrow (Business Week, 2004).

Therefore, the potential for the Business Angels market in Poland is quite considerable, although it will take time before it is fully functional. According to W. Dolkowski (president of PolBAN) there are around 100 thousand people in Poland each with 1 million PLZ in disposable income (Puls Buzinesu, 2004). If only 5 per cent of them could be persuaded to invest in one or two business ventures this would provide sufficient seed capital of between 50 and 500 thousand PLZ each for around 10 thousand firms. However, it is not only about access to start-up funding since Business Angels, whether 'hands on' or not, also provide valuable advice, help formulate business strategies; and provide contacts and networks.

At the national level there are two Business Angel networks in Poland: PolBAN and Lewiatan BA (LBA), which operate within the Polish Confederation of Private Employers Lewiatan. PolBAN and LBA have the same aims and objectives as other members of the European Business Angel Network (EBAN): acting as honest brokers and a 'marriage bureau' for private investors and entrepreneurs who are seeking funds for their new ventures. More recently, a group of entrepreneurs have created a web- based Business Angles network (www.Znajdzinwestora.WP.pl). They already have 1234 names of real and potential BAs, and have so far assisted in two successful investment projects. At the regional level there is a newly established network of Business Angels in Silesia called SilBAN.

The Business Angel network in Poland is relatively young, and it is too early to assess its effectiveness given the small number of completed investment projects to date. However, the major features and activities of these organisations at national and regional levels are examined below.

PolBan

PolBAN was established in December 2003 by Wojtek Dolkowski and three friends who have funded 15 Polish entrepreneurs. It forms a part of EBAN; therefore it can tap into its contacts and a wide range of networks.

It is a "non-profit" organisation and its activities are now funded from a variety of sources: sponsorships (companies and private individuals), membership fees, and commission from PolBAN led projects (www.polban.pl). The organisation has an office in Bydgoszcz but also operates through a network of representatives throughout Poland. Its main aim is "to inform

wider public about Business Angels activities, seek potential investors and promote interesting projects" (Puls Buzinesu, 2004). However, there are more specific aims that address a range of issues that small firms confront when endeavouring to access finance for their businesses, and promote their own activities:

- locate and support Business Angels in Poland,
- promote seed capital type investment at the start-up investment stage,
- help eliminate the 'capital gap' at an early stage of entrepreneurial activity,
- link up new projects with potential investors (BAs),
- promote new firm formation,
- improve the entrepreneurial climate and stimulate the development of the SME sector,
- support cooperation between entrepreneurs and Business Angels,
- exchange experiences and knowledge with similar organisations abroad,
- promote foreign investment through, among others, the EBAN network,
- stimulate the business environment and create a forum for the exchange of contacts and ideas, and
- advocate tax reductions for Business Angel type investment.

In 2005, PolBAN was associated with 20 Business Angels, and in June 2005 completed its first project (Gazeta Wyborcza, 2005) and by the end of 2006 it has successfully completed three projects (Puls Biznesu, 2006).

Lewiatan Business Angels

Lewiatan Business Angels (LBA) was established in April 2005, with 85 per cent of its funding coming from EU sources. It collaborates with a number of organisations such as Innovation Funds-FIRE, American, German and Irish Chambers of Commerce. However, as a constituent part of the Polish Confederation of Private Employers, it can operate at a regional level by using an existing network of their offices in various Polish cities.

Similarly to PolBAN, it currently operates as a non-profit organisation but will start charging for its services in 2007. LBA is a very much a 'hands on' organisation and pays a lot of attention to project selection. It pre-selects projects, prepares a summary document and then passes it on to a potential investor. Once the initial meeting between an entrepreneur and BA takes place, LBA 'takes a back seat'. Some of the less well defined projects are either rejected outright, or sent back for further amendments.

LBA calculates the amount of yearly profit at an early stage of negotiations between an entrepreneur and the Business Angel according to LBAs project manager (interview, January 2006). Its strict business focus has paid off, and LBA has succeeded in facilitating start-up funds for a network of coffee bars and was instrumental in setting up an indemnity company and more recently a software company. Currently there are 50 Business Angels associated with LBA, with two business deals completed, and another 30 projects being considered by them. LBA's future projects will have an even more defined focus, concentrating on information technology, renewable energy and mass media.

SilBAN

The Silesian Business Angels network (SilLBAN) was established in April 2006 by three government sponsored organisations (Fundusz Gornoslaski SA; Gornoslaskie Towarzystwo

Gospodarcze, and Gornoslaska Agencja Przeksztalcen Przedsiebiorstw SA). Its aim is to link Business Angels with investment projects in Silesia. There are a number of potential projects within SilBAN's portfolio that were considered worth supporting in sectors such as construction, telecommunications, IT, and medical services. In order to register as a BA in Silesia an investor needs to have 50,000 zlotys to invest (equivalent to €13, 000). Based upon our field work in Silesia, the next section examines the role of entrepreneurs and Business Angels in Poland and Silesia in particular.

3.4. Polish entrepreneurs and Business Angels

There are various studies pertaining to the emergence and formation of an entrepreneurial class in Poland throughout the post-communist transformation period. One premise is that, due to an under-developed class of large-scale capitalists in Central and Eastern Europe, the entrepreneurial class carries the responsibility for the progress of capitalism during the transformation process (Osborn and Slomczynski, 2005). Developing entrepreneurship and risk-taking by a section of Poland's population stimulated the economy and helped it to achieve strong economic growth between 1990 and 2000. However, Polish entrepreneurs still face important impediments to successful activity due to excessive bureaucratic and fiscal constraints from government, and the competitive shock resulting from EU membership (Wyznikiewicz, 2003).

Biographical accounts (Osborn and Slomczynski, 2005) confirm the view that many conventional features of entrepreneurial activity dominant in capitalist systems were also important in the formation of the 'new' Polish entrepreneurial class, and in the emergence of a growing number of Business Angels. However, there also were some uniquely Polish conditions that stimulated entrepreneurship, such as foreign contacts and networks as well as specific government incentives and tax holidays. Polish entrepreneurs and Business Angels are better educated than the national average, and they are better off with respect to ownership or access to economic assets. EU membership has brought with it new opportunities but also major challenges for entrepreneurs and sustained small business growth. As Wyznikiewicz (2004) notes:

"However, it seems that the mental preparation of entrepreneurs for open competition in the single market... are actually more important than the timely preparation of a legal and economic infrastructure. In my opinion, in the initial period of Poland's presence in the EU, Polish entrepreneurs will have to take lessons in integration, and for many these lessons may prove painful."

Business Angles as a phenomenon are relatively unknown in Poland and their first investment projects can be traced to the mid-1990s. With the development of free market and private sector during the first phase of transition, the demand for private investment intensified but the investment gap described earlier remained quiet considerable. Although Business Angels do not like publicity and are notoriously difficult to trace down it is estimated that there are a thousand or more potential BAs in Poland who are ready to invest between 50,000 PLZ to several million PLZ in each project (which is between 12 000 and a quarter of a million EURO). Under Polish conditions, BAs face additional problems as they are worried for their own and their families' safety as the number of kidnappings and ransom demands are quite high.

Projects have to meet several criteria in order to be eligible for Business Angel's investment (especially those that are to be brokered by Business Angels networks both at national and regional levels). First, potential products or processes have to be innovative. Second, the managers who are going to be involved in the implementation of the project have to be competent and enthusiastic. Third, a project in question has to meet criteria of a 'start up' and has to be competitive (interview with Michal Olszewski from LBA).

Many characteristics of a Polish Business Angel (based on interviews with Business Angels in Silesia) are similar to those of the Scottish BA described earlier. He (as there are no women BAs so far in Poland) is between 40-60 years of age and has had some experience of running a firm; and is therefore willing to invest in a business that he either knows personally or understands well. This experience and knowledge parallels that of Business Angels s in Scotland. Throughout the first phase of the project (or longer in some cases) the link with the project's management team remains close and very 'hands on'. The following quote illustrates how one of the interviewed Angels described the relationship with projects in which they become involved:

"We give advice on organisation or other business and support the universities as well so we could probably be recognised as facilitators and business advisors. We sit the three of us over here and talk to these people and agree on a business plan for next year or next month and this person performs together with us, with our involvement from time to time". Geographical distance (as in the case of Scottish Business Angels) is also important, as Polish BAs invest in close proximity to the place where they live and work. As one of the interviewed Angels put it:

" Lets say a distance of 50km or 50 miles, not far so we can go and visit the guy, visit the business. Easy. That's our experience"

Unlike Scottish BAs, their Polish counterparts are weary of banks and various public bodies. This is how one on them describes his experience in working with the bank:

"I tried to do many things with banks. They offered some loans and sometimes they are free or very cheap. But loans can be complicated because they vary. In some cases you can employ people and keep them for five years. We cannot plan this. How come? Five years? It's like a million years for us".

Therefore, not surprisingly their approach to these institutions is cautious bordering on negative. Silesian Business Angels that were interviewed for this project have developed a unique relationship with local authorities in a town adjacent to where they live due to networking and prior involvement in other projects. Networking and personal contacts are a key to factor in their undeniable success in Silesia.

Although BAs have some spare cash they are not multi millionaires. As for return on investment, it varies depending on the project according to another Business Angel who said:

"You can successfully and safely invest with investment partners and collect 15% easily. Or interestingly with the same involvement, it can go up at least four times in four years with the minimum risk".

Business Angels activities in conjunction with venture capital financing are a major source of capital for the developing firms in CEE countries and Poland provides the best example in these areas (Klonowski, 2006).

4. CONCLUSION

Business Angels are not new arrivals in the venture capital market. However, the term has only become recent common currency in informal venture capital markets associated with small businesses especially in CEE Europe. The parallels between Business Angel operations and networks in an established environment such as Scotland and in transition economies like Poland are evident although there are some clear differences as argued earlier. This is not surprising given that the primary motivation for Business Angels is capital growth, and that they seek to fill a financial gap and compensate for failures in the venture capital market wherever they appear. Their activities are crucial since small companies usually cite problems with access to capital, credit and bank loans as major obstacles to formation and growth of their business.

Interestingly, it is the extent to which both well founded capital markets and transition economies have a high dependence upon micro-economic features of small business formation. This includes reliance on family assets, human capital, and specific demographic features of individuals. Clearly, the financial gap is a shared feature for the small business start-up and growth processes, and this creates similar responses from formal and informal sources of capital. In terms of formal sources, banks in Scotland and Poland seem to respond in the same way by showing very little interest in supporting small businesses. More strikingly in the case of Poland, they seem to put even more stringent conditions (collateral amongst others) upon SMEs which are impossible to meet. Under these conditions, Business Angel strategies hinge mainly upon the generation of local, national and international 'networks' in order to identify and assess investment opportunities, and form partnerships with both private and public organisations.

Based on the research in Poland, it is clear that the potential links with State financed initiatives for national and regional economic growth and employment in the EU A8 economies are not as common or as easy as entrepreneurs might expect. This policy arena is a common denominator for Business Angels and small businesses alike, since the SME sector is identified as the engine of economic growth and *de novo* job creation, though there are intractable problems in some areas due to sectoral and regional decline following the loss of employment in traditional industries. The causes may vary, but the policy implications are very similar. In Scotland and Poland, public and private initiatives were developed to engage venture capital with small business start-up and growth although with a varying degree of success (especially in Poland). In both contexts, Business Angel networks responded to these national opportunities, and in the case of Poland quickly established European links at both national and regional levels.

The differences in the experiences of Scotland and Poland are more related to the speed of change in the transition economies and the capacity for national informal venture capital to gauge its response to demand. For Poland, the majority of new capital has arrived from foreign investors as buyouts of large firms and privatisations, or as green-field site investments. The consequences for SMEs have been a fast flow of funds to support these

large firms and buyout opportunities, accompanied by economic uncertainty and turbulence that induces risk adverse behaviour by potential investors in start-up firms, and very little flow of capital into the SME sector from external sources.

Whilst this paper has offered some critical insights into the Angel market in Poland, the analysis is limited due to the relatively recent emergence of BAs in the venture capital market. However, this study highlights the involvement and importance of Business Angels more recently and that this activity and involvement in the SME sector is becoming more prominent. Further research will focus on the developments within the Angel market by examining the ability of their networks to match potential investors with business opportunities. The main focus of the paper has been on the supply side of the market and further research needs to be undertaken to determine issues on the demand side. For example, are businesses seeking more than equity finance from Angel investors? Why do entrepreneurs still seek Angel investment rather than bank finance? Will new EU initiatives change this and affect a 'pecking order' that entrepreneurs are following in seeking finance for a new venture? How easy is it to secure Angel funding and what mechanisms are used

Thus, policy recommendations for the Polish economy should take into consideration some key elements of this initial exploration of the nature and role of Business Angels. First, given the problems of access to capital for start-up firms, incentives could be built into the tax structure for Business Angels that might mirror those afforded to (large) foreign corporate investors. Major economic development targets, such as regional development, regeneration, and rural economic sustainability could be linked to investment incentives in the SME sector and to rural entrepreneurial activity. Second, family sourced finance for small business is a dominant feature of start-up firms. Therefore, family focused incentives to support SMEs through tax credits on investments would acknowledge and reward this major source of finance. Third, job creation is a major element of economic policy and firmly linked to the success of new business ventures, and their survival. Business Angels play a key role in this process that needs to be better understood and incorporated into the policy arena in Poland in order to capture the full potential of this source of finance.

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TRADITIONAL VS. NEW EXPLANATION OF FOREIGN DIRECT INVESTMENT IN TRANSITION COUNTRIES OF CENTRAL AND EAST EUROPE

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1. INTRODUCTION

Globalization, economic integration and transition are the phenomena shaping the world economic order through creation of a new global economy. This opens up huge business possibilities, but only to economic agents able to keep their competitive edge and become global market leaders. Transition process makes it possible for reform countries to adjust to these challenges and achieve a stabile position on the world market. Although this calls for a complex set of policy measures and reforms, one specific aspect is presented in this paper – FDI as a means of improving international competitiveness through business networking and transfer of technology and know-how.

Countries of Central and East Europe showed significant differences regarding FDI-inflow during the 90s. Although they implemented different FDI-policies, it cannot be simply asserted that the more 'open' ones realized a higher inflow of FDI. Therefore, the aim of the paper is to find out which factors contributed significantly to FDI-inflow in transition countries. The main purpose is to empirically investigate the relative importance of factor-proportions and proximity-concentration hypothesis in shaping international capital flows. In doing so, the analysis relies on the factor proportions theory and the theory of imperfect competition thus creating a sound theoretical basis for what used to be called a pure 'empirical issue'.

Paper is divided into three parts. The first part presents theoretical background and combines inferences from both the eclectic OLI-paradigm and the concept of imperfect competition and increasing returns to scale. The second part gives an overview of recent trends in global FDI-flows and FDI-structure in transition countries, while the results of cross-country panel data analysis are given in the third part.

2. THEORETICAL BACKGROUND FOR THE ANALYSIS OF INTERNATIONAL CAPITAL FLOWS - FDI

2.1. Motifs for doing business abroad and eclectic OLI-paradigm

Motifs for a foreign investor to start business abroad can be summarized as: resource-seeking, increasing global market share (market-seeking), efficiency improvement through economies of scale (efficiency-seeking) and acquisition of local companies (strategic asset-seeking).

The main purpose of investing abroad motivated by resource-seeking is acquiring resources which can contribute to the reduction of production costs and price. Apart from physical (or human) resources, this group also includes technology and knowledge-based skills (human capital), the letter having proved to be the most relevant for a foreign investor (see: Wang/Swain, 1995). Therefore, labour market deregulation and wage competition today play a minor role compared to knowledge creation and innovation capacity of a specific production location (Barell/Paine, 1999). Market-seeking FDI are primarily motivated by a desire to acquire stabile share on the international market. Additionally, by entering new markets foreign investor can reduce transport and transaction costs[1] and adjust to local demand thus improving international competitiveness. While doing so, they are motivated by the size of the market with significant growth potential and government incentives (see: Braunerhjelm/Svensson, 1996).

Efficiency improvements through FDI can be achieved by means of economies of scale and diversification in the production process. This can be easily realized in case of transnational corporations with developed business worldwide. Product differentiation through more detailed specialization leads to cost reduction, while the same effect in case of economies of scale stems from decreasing unit costs of production. In order for foreign investor to be able to take advantage of it, local markets should be open and developed which means offering not only substantial absorption capacity but also free access to international market (preferably by means of economic integration and similar contractual agreements). In the focus of strategic asset-seeking FDI is a desire to improve long-term competitiveness on international market through increasing and diversifying company's own assets thus enabling further diversification of business activities. This motif has been central in case of privatization projects (brownfield investment) in many countries of Central and East Europe[2].

International movements of long-term capital depend largely on investment conditions of a specific location. Taking into consideration characteristics of an investor and those of the investment location, factors determining FDI-flows can be viewed through OLI-paradigm which incorporates the advantages of ownership, location and internalization. Possession of some form of intangible assets (e.g. innovation capacity, human capital and know-how, access to information, etc.) which secure investor's advantage over other competitors is indispensable for doing business abroad. Moreover, ownership advantages are also important for the FDI-receiving country in as much as they offer easier access to knowledge and technology and create positive spill-over effects. Assuming creation of forward- and backward-linkages with local companies this can contribute to improving country's long-term competitiveness on international markets. Final effects depend, however, upon the absorption capacity of the host economy, i.e. its readiness to effectively apply new knowledge and know-

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[1] More on impacts of trade barriers on FDI in: Girma *et al.*, 2002.
[2] For further elaboration and other investment motifs see: Dunning, 1993.

how under conditions of increasing competitive pressure from foreign markets (Barrios/Strobl, 2002).

With internalization advantages it is possible to make the utmost use of the above described advantages of ownership. For investors this means reducing market imperfections like asymmetric information, control of supply and demand, influence on price formation and similar forms of threatening market competition. In case of specific industry the extent to which internalization advantages can be realized depends on conditions for horizontal and vertical production integration, complementarity between domestic and foreign companies and the possibilities for further specialization. Location advantages refer to characteristics of a specific location which will favour the above mentioned investor's advantages enabling him to make profitable use of production resources. Location advantages include wide array of elements such as: availability of resources (natural and created), price and quality of inputs, labour productivity, transport and communication costs, investment incentives, legal regulation, cultural and political characteristics of a country, R&D-support schemes, etc. (see: Dunning, 1993). All these characteristics which can attract an investor to a specific location represent basically institutional conditions which can be influenced through state intervention[3] (Barell/Paine, 1999). Countries aiming at attracting the production with steadily growing demand as well as attracting technologically advanced investments should put emphasis on knowledge creation and productivity improvements[4] (Braunerhjelm/Svensson, 1996).

2.2. 'New theory of FDI'

Assuming imperfect competition, increasing returns to scale and product differentiation Helpman and Krugman (1986) extend 'new trade theory' onto MNE and explain the conditions under which companies are ready to shift their business activities abroad and effectuate foreign direct investments. With standard model assumptions[5] and with possible differences in relative factor endowment between countries, the model introduces intra-firm trade (knowledge-intensive headquarter services), apart from intra- and inter-industry trade (Helpman, 1984). By combining the principle of factor proportions with product differentiation and scale economies, the model explains FDI as a form of vertical business integration. Vertical integration occurs as a result of cross-country differences in relative factor endowment which means that FDI-flows are expected to appear between different countries (North-South) and are called 'one-way' FDI-activities (Di Mauro, 2000).

However, contemporary economic relations are strongly characterized by significant capital flows among similar countries regarding factor endowment as well as size and level of development (North-North[6]).

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[3] Advantages of a specific location can lead to a spatial concentration of business activities resulting in intense innovation activities, production specialization and business networking. Apart from efficiency effects, spatial concentration of economic activities can occur as a result of demonstration effect as well (Barry *et al.*, 2003).
[4] However, absorption capacity of the host economy determines the amount of positive spill-over effects. Absorption capacity is determined by knowledge creation (education, R&D), trade openness and other institutional conditions; it depends upon existence of forward-backward linkages, demonstration and competition effect, labor force mobility, etc. (for details see: Barrios/Strobl, 2002, Te Velde, 2001).
[5] Two production factors, two final goods (homogeneous – food, differentiated – industrial commodity) and intermediary product (headquarter services), no transport and transaction costs, no barriers to trade or differences in tax systems (Helpman/Krugman, 1986, pp. 228).
[6] In 2004 almost three quarters (73,8%) of total world FDI (in- and outgoing) were realized among the developed countries, while only one quarter (23%) relates to the developing ones (UNCTAD – World Investment Report 2005).

Therefore, in case of similarity of factor endowments among countries, FDI-flows can be explained through proximity-concentration trade off (Brainard, 1993). Dominance of the 'closeness-to-market' criteria contributes to locating business activities abroad, i.e. close to target markets, with the aim of reducing transport or transaction costs, meeting local market preferences or taking other advantages of a specific location. The concentration criteria gains importance when there is significant economies of scale in the production which reduces the possibility of shifting businesses abroad on different locations and establishes exports as a way of serving foreign markets[7]. FDI-flows therefore depend basically upon the relation of transport and transaction costs on one hand and scale economies on the other. There are two products in the model – a homogeneous constant-returns-to-scale being the first one, and a differentiated increasing-returns-to-scale the second, further to variable transport costs, homothetic consumer preferences and similar relative factor endowment. They generate 'two-way' intra-industry investment in form of horizontal FDI with the prime goal of market-seeking (for empirical research see: Brainard, 1997).

Taking into consideration main characteristics of the ongoing globalization process (reduction in trade and investment barriers) one can expect increasing vertical (efficiency-seeking) FDI in the future. This opens up possibilities for less developed (transition) countries to take part in international production through improvement of their location advantages. This shows the increasing importance of the efficiency argument for foreign investors, whilst not abandoning the motif for market expansion at the same time.

By combining insights of the new trade theory with those of the theory of multinational enterprise Markusen *et al.* (1996) have created a model which incorporated horizontal and vertical FDI. The model includes the size of a country and claims that vertical FDI are realized between countries of different relative factor endowment, while horizontal ones occur between countries with similar endowment of production factors and modest-to-high transport costs. In both cases countries of similar size are assumed, unlike situation in which national firms dominate and generate no FDI. In case of national firm dominance it is further assumed that countries have similar relative factor endowments, low-to-modest trading costs and significant differences in size. Therefore, differences in country size (approximating also the level of development) significantly reduce chances for bilateral FDI-flows. However, apart from market- or efficiency-seeking motifs there are also other motifs (resource- and asset-seeking) which contribute to generating capital flows among countries.

3. GLOBAL AND REGIONAL CHARACTERISTICS OF FDI-FLOWS

3.1. Recent trends in FDI

Total world FDI-inflow in 2004 amounted to 648,15 bill. USD out of which almost 60% (380,02 bill. USD) went to developed countries (mostly the EU: 216,44 bill. USD). Countries of South East Europe have reached a share of 1,7% in the 2004 world FDI-inflow, though with an above average growth dynamics. While FDI in 2004 increased by 2,5% globally and even recorded a decrease in developed countries (-14,1%) including the EU (-36,1%), foreign

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[7] The underlying theoretical model has often been used as a tool for empirical research on complementarity or substitutability of FDI and trade (e.g. Christie, 2003, Brenton *et al.*, 1999, Graham 1996).

investments into SEEC[8] increased by 28,8%. Ten new member countries of the EU display even stronger developments in FDI-inflow which increased in 2004 by 68,6%[9] (UNCTAD – World Investment Report 2005).

Countries of South East Europe realize only 0,6% of the world FDI-stock (2004), developed countries 72,7% and the less developed ones app. 25%. Measured by the transnationality index[10], countries of SEE&CIS realize on average 16,5% indicating that the FDI-share in domestic GDP, investment, value added and employment could improve in the future; all the more if eight new member countries of the EU are considered (on average app. 25%). In case of Croatia transnationality index reaches 17,5%, lower than in Bulgaria (20%) or Macedonia (41,4%), better than in Serbia and Montenegro (6%), Bosnia and Herzegovina (8,5%), Albania (10%) and Romania (12%). Therefore, there are possibilities for increased inflow of FDI into the Region which might be accelerated by further macroeconomic stabilization, expected economic growth and finalization of the ongoing institutional reforms (including the accession to the EU). In 2005 transition countries in Europe have realized an increase in FDI-inflow by 18,1% (total 68,18 mill. USD). After 2001 inflows of FDI record quite unstable tendencies marked by a drop in capital inflow in 2003 and an expected decrease in 2006 (table 1).

Table 1. FDI-inflow by various country groups (mill. USD), 2001-2006

country groups*	2001	2002	2003	2004	2005	2006**
CEEC 5	19.240	22.665	8.710	19.718	22.446	17.500
BC 3	1.248	1.348	1.242	2.030	3.542	2.500
CEEC 5+BC 3	20.488	24.013	9.952	21.742	25.988	20.000
SEEC 4	4.752	4.496	7.407	10.612	10.414	13.300
European CIS	4.174	4.796	8.522	14.057	18.420	14.300
TOTAL	**29.414**	**33.305**	**25.881**	**46.412**	**54.822**	**47.600**

* CEEC 5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia; BC 3: Estonia, Latvia, Lithuania; SEEC 4: Bulgaria, Croatia, Macedonia, Romania; European CIS: Belarus, Moldova, Russia, Ukraine.

** Forecast.

Source: WIIW – Database on Foreign Direct Investment 2006

Unlike trends in other countries, SEEC are expected to record a further increase in FDI-inflow in 2006. This can be confirmed by the fact that in 2004 SEEC had an average inward FDI-stock of only app. 30% of GDP, while CEEC realized almost 40% and the Baltic countries app. 50%. Measured by the contribution of FDI to gross fixed capital formation (2004) the ranking is the following: SEEC 27,6%, BC 20,7%, CEEC 13,2% and indicates that countries of South East Europe rely heavily on foreign capital in financing their investment projects.

Regarding the sector structure of FDI in 2003 SEEC&CIS show different pattern compared to the rest of the world, particularly compared to developed countries (table 2). SEEC&CIS have realized one third of FDI in primary sector (relating mostly to exploitation of Russian oil fields), while in other countries this share does not exceed 7%. SEEC&CIS have realized only app. 25% of FDI in manufacturing (developed countries: 31,6%, developing countries: 37%) and display a relatively low share in services of 40,7% (the world average: 58,8%). As for

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[8] According to UNCTAD the group of SEEC includes: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Serbia and Montenegro.

[9] Eight transition member countries of the EU recorded a more significant increase in FDI-inflow by 74,4%.

[10] A composite measure of FDI-impact on the host economy (for details see: UNCTAD – World Investment Report 2005, pp. 16).

industries that received FDI, there are differences as well. In developed countries there is a domination of investments in chemical industry, electrical equipment, food processing and metal and machine industry. In SEEC&CIS the largest investments are realized in food processing and chemical industry. Unlike investments in finance and business activities which realize a significant share in the tertiary sector in the developed countries, in SEEC&CIS the majority of investments went into transport and trade.

Table 2. FDI-stock by sectors for different country groups (mill. USD), 2003

sectors	developed countries	developing countries	SEEC&CIS	World
primary	428.831	143.993	21.498	594.322
manufacturing	2.081.645	779.112	15.345	2.876.102
services	4.015.555	1.110.757	27.514	5.153.826
other	58.055	74.859	3.245	136.159
TOTAL	**6.584.086**	**2.108.721**	**67.602**	**8.760.409**

Source: UNCTAD – World Investment Report 2005

With regard to future developments, FDI are expected to increase[11] globally as a result of dynamic economic growth in the world economy, further trade liberalization and deregulation (including privatization) and increasing global competitive pressure forcing companies to engage in market- or/and efficiency-seeking investment abroad. For Croatia and other SEEC, GDP growth, institutional reforms and efficient process of economic restructuring prove to be the main factors which can contribute to significant FDI-inflow and positive spill-over effects.

3.2. Structural characteristics of FDI in transition countries in Europe

By 2004 the analyzed transition countries have recorded an FDI-stock of app. 270 bill. USD. Out of that amount almost 70% was realized in only three countries – Poland, Hungary and the Czech Republic (table 3). During the same period Croatia received 13 bill. USD, however with weak spill-over effects (see: Vukšić, 2005, Škudar, 2004). After the 90s Croatia experienced a steadily growing FDI-inflow and has increased FDI-stock from 19,4% (2000) to 39,1% (2004), measured by share in GDP. That way Croatia joined the group of countries with significant FDI-inflow (Czech Republic, Slovak Republic, Hungary, Estonia, Bulgaria). A relatively low share of FDI-stock in gross fixed capital formation shows that there are still considerable market opportunities for foreign investors in Croatia[12].

According to the FDI *per capita* Croatia holds a sound middle position among the analyzed countries and compares well with the Slovak Republic and Slovenia. The leading positions are occupied by ungary, the Czech Republic and Estonia, while SEEC lag behind considerably (figure 1).

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[11] Sectors potentially interesting for investors are: exploitation of natural resources – oil and gas, electrical and electronic industry, machinery and equipment, metal industry and services like telecommunication, computing, public utilities and tourism (IPN – www.ipanet.net).
[12] Together with the majority of the (new) EU member countries, UNCTAD regards Croatia as a high performing and high potential FDI-host country (UNCTAD – World Investment Report 2005).
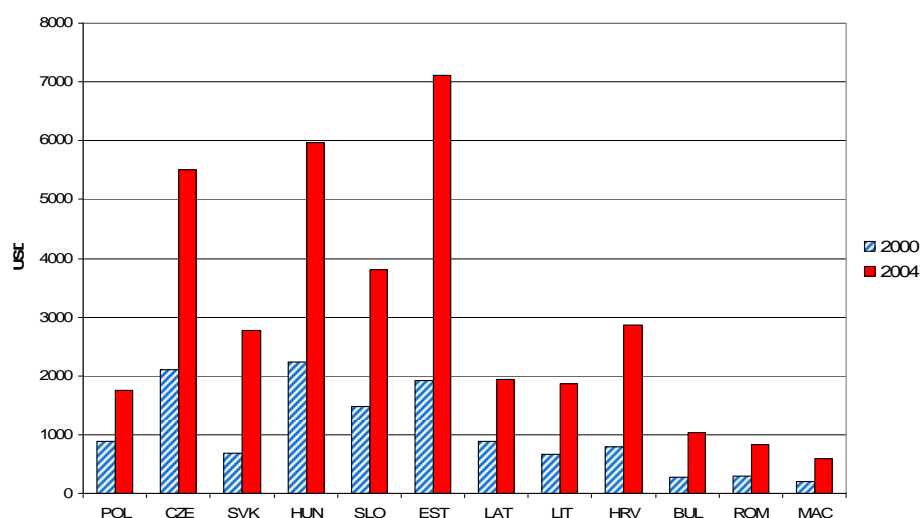
Figure 1.   FDI-stock/capita for selected transition countries (USD), 2000, 2004

As far as the structure of FDI by economic activities is concerned, there dominate investments in manufacturing in all countries except Estonia, Lithuania and Croatia where top positions belong to investments in banking and other financial intermediation. Highly ranked are also wholesale and retail trade, transport and real estate and business activities. Structure of FDI by industries can be followed in table 4.

Table 3. FDI-flow, -stock and other indicators for selected transition countries (mill. USD), 1993-2004

country	FDI-inflow												FDI-stock	FDI-stock (% GDP)	FDI-stock (% GFCF*)
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2004	2004	2004
POL	1.715	1.875	3.659	4.498	4.908	6.365	7.270	9.343	5.714	4.131	4.123	6.288	68.000	25,4	14,9
CZE	654	878	2.568	1.435	1.286	3.700	6.313	4.987	5.641	8.497	2.021	4.454	56.415	52,7	15,4
SVK	199	270	236	351	174	562	345	2.052	1.584	4.104	559	1.122	15.000	35,3	11,1
HUN	2.350	1.144	4.804	3.289	4.155	3.343	3.308	2.770	3.944	3.013	2.202	4.184	60.328	60,7	18,6
SLO	113	117	151	174	334	216	107	136	503	1.686	337	516	7.500	15,1	6,5
EST	162	214	202	150	266	581	305	387	543	285	919	1.049	9.530	85,1	29,6
LAT	45	214	180	382	521	357	348	413	132	254	300	647	4.493	32,9	16,7
LIT	30	31	73	152	355	926	487	379	446	713	179	773	6.389	28,8	15,8
HRV	120	117	114	511	533	932	1.464	1.085	1.338	1.213	2.133	1.176	12.989	39,1	11,4
BUL	40	105	90	109	505	537	819	1.002	813	905	1.419	1.803	8.200	31,7	49,2
ROM	94	341	419	263	1.215	2.031	1.041	1.037	1.157	1.144	1.844	5.316	18.002	25,2	31,7
MAC	-	-	-	11	16	128	33	175	442	78	95	151	1.175	24,8	16,2

Source: IMF – International Financial Statistics Yearbook 2005
UNCTAD – World Investment Report 2005

Table 4. Structure of FDI-stock by industries for selected transition countries (%), 2003

POL		CZE		SVK		HUN		SLO		EST	
DA	18,4	**DM**	22,7	**DJ**	35,9	**DM**	23,9	**DE**	16,9	**DD**	25,4
DM	18	**DL**	13,8	**DA**	12,4	**DL**	20,2	**DH**	14,5	**DA**	14,7
DG	11,3	**DI**	12	**DF**	11,2	**DA**	14,9	**DG**	13,2	**DE**	10,5
DD	10,8	**DA**	11,1	**DL**	6,6	**DG**	12,5	**DK**	11,7	**DI**	10,4
DH	6,6	**DJ**	11,1	**DG**	5,8	**DK**	6,2	**DI**	8,6	**DL**	8,6
total	**65,1**	total	**70,7**	total	**71,9**	total	**77,7**	Total	**64,9**	total	**69,6**
LAT		LIT		HRV		BUL		ROM		MAC	
DD	23,4	**DA**	30,3	**DG**	35,9	**DF**	28,8	**DJ**	23	**DA**	28,6
DA	20,4	**DF**	17	**DI**	18,3	**DA**	14,9	**DA**	18,8	**DN**	21,5
DI	15,4	**DH**	10,3	**DA**	14,5	**DB+DC**	14,2	**DG**	16,6	**DJ**	18,7
DB	15,3	**DL**	7,9	**DF**	11,4	**DD+DE**	13,2	**DM**	10,4	**DF**	17,8
DG	4,2	**DG**	7,1	**DL**	8,6	**DI**	13	**DK**	8,9	**DG**	5,6
total	**78,7**	total	**72,9**	total	**88,7**	total	**83,5**	total	**77,7**	total	**92,2**

DA food products, beverages and tobacco; DB textiles and textile products; DC leather and leather products; DD wood and wood products; DE pulp, paper and products, publishing and printing; DF coke, refined petroleum products and nuclear fuel; DG chemicals, products and man-made fibres; DH rubber and plastic products; DI other non-metallic mineral products; DJ basic metals and fabricated metal products; DK machinery and equipment n.e.c.; DL electrical and optical equipment; DM transport equipment; DN manufacturing n.e.c.

Source: WIIW – Database on Foreign Direct Investment 2005

UNCTAD – World Investment Report 2005

Regional structure of inward FDI shows that the great majority of investment comes from the EU. The main FDI-home countries are the Netherlands, Germany and Austria which make up for one half of the entire FDI-stock in eight new member countries, while realizing on average app. 40% of FDI-stock in Croatia, Bulgaria, Macedonia and Romania. In case of SEEC we can observe a 'gravitational effect' in incoming FDI pointing out at Greece or Cyprus as sources of foreign investment.

4. REGRESSION ANALYSIS OF FDI IN TRANSITION COUNTRIES

4.1. Previous analyses

The greatest part of empirical research on FDI focused on developed countries and more specifically on issue of complementarity vs. substitutability between FDI and exports (Graham, 1996; Girma *et al.* 2002). In doing so, the concept of 'proximity-concentration trade off' has been used explaining the interplay between transport and transaction costs on one hand and economies of scale on the other in deciding on international production location. The issue of FDI vs. exports has usually been approached through integration effects (Di Mauro, 2000; Clausing/Dorobantu, 2005), sometimes even from the position of a third country which stays outside economic integration (Brenton *et al.*, 1999). Furthermore, in some analyses the central position is given to spatial location of FDI with special reference to regions and agglomeration effects (Boudier-Bansebaa, 2005; Barry *et al.*, 2003; Barell/Pain, 1999).

These empirical studies offered valuable insights into factors determining cross-border investment flows. However, there are studies which specifically focused on FDI in transition countries (Christie, 2003; Fidrmuc/Fidrmuc, 2003; Garibaldi *et al.*, 2001; Carstensen/Toubal, 2004; Wang/Swain, 1995) incorporating both typical gravity variables (GDP, population,

distance) and those which correspond to the Helpman-Krugman model of increasing returns to scale (GDP-based variables approximating market potential or consumer preferences). Apart from that, these studies included institutional and 'transition specific' variables (more on that in: Clausing/Dorobantu, 2005).

Generally, advanced transition countries receive more market-seeking FDI, while those which realized a lower pace of economic reforms display rather unclear pattern of incoming FDI, i.e. equal shares of market- and efficiency-seeking FDI. Macroeconomic stability and institutional reforms together with the EU-accession proved to be the relevant factors in attracting FDI into transition countries.

4.2. Model specification and results

The following regression analysis is based on two model specifications – traditional 'gravity' one and the modern one based on imperfect competition and increasing returns to scale. According to Linnemann (1966) standard gravity model includes push and pull factors for direct investments abroad, i.e. variables of income and population for FDI-host and -home country. Additionally, this specification includes distance as approximation of natural trade impediments (transport and transaction costs). The other specification of the regression equation based on the idea of imperfect competition and similarities in demand includes variables approximating the degree of GDP-similarity between country pairs. Horizontal or market-seeking FDI occur when there is GDP similarity (approximating similarities in production factor endowments), while vertical, efficiency-seeking FDI arise with significant differences of GDP across countries.

Cross-country panel data analysis which follows includes 12 transition countries[13] and refers to the period 1993-2004. Research on bilateral FDI-flows also includes five main investors in East Europe – the Netherlands, Germany, Austria, France and the USA which made it possible to have 463 time series[14]. The response variable in the model is FDI-stock (*FDIstck*) as it displays more stabile tendencies in time than FDI-flows and it cannot take value 0 or negative sign and brings long-term effects to the FDI-host economy.

There is a wide selection of explanatory variables in the model such as: GDP, GDP/*capita* (*GDP.C*), and population for FDI-host and -home economy (*POP.*). Additionally, the model includes variables which measure similarity in GDP (*GDPsim*), GDP volume (*GDPsize*) and differences in production factor endowments (*GDPdifC*), (according to: Di Mauro, 2000). There is also variable for distance between country pairs – both in absolute (*DIST*) and relative (*relDIST.*) terms (according to: Fidrmuc/Fidrmuc, 2003). Economic openness is approximated by share of trade volume (goods and services) in GDP (*OPENg, OPENgs*), while the costs of production are depicted by unit labour costs (*ULC.*) adjusted for market exchange rate or purchasing power parity in order to catch the effects of economic policy. The effects of common border (*BORD*) and contractual relations with the EU (*EU*) are introduced via dummy variables. The remaining predictor variables relate mostly to institutional conditions which marked transition process of the European East during the 90s. These include revenues from privatization (*privrev*), share of trade with non-transition countries

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[13] Eight new members of the EU (since 2004) – the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, the Slovak Republic, Slovenia and four countries of South East Europe which have contractual relations with the EU – Bulgaria and Romania (new members since 01. 01. 2007), Croatia (accession negotiations) and Macedonia (Stabilization and Association Agreement).

[14] Series which missed any data were excluded from the analysis.

(*TRADEnont*), and the EBRD-indices of small- and large-scale privatization and foreign exchange and trade liberalization – both nominal (*EBRD.*) and normalized (*EBRD.N*) values (for methodology see: Karen/Ofer, 2002).

Regression equations are of ln-linear form, both response variable and the explanatory ones as follows:

$$\ln FDIstck = \text{const.} + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \dots + \beta_n \ln X_n + \mu \qquad (1)$$

for which the estimated parameters are calculated according to the OLS-methodology.

The results are presented in table 5 in which equations 1-3 are designed along the lines of the standard gravity model, while equations 4-6 resemble characteristics of the imperfect competition models and increasing returns to scale. All the equations have Pearson's correlation coefficient above 0,8 with the adjusted R^2 in the range of 73-75%. All the variables are statistically significant at the level of 0,05.

In equations 1-3 most variables have the expected sign. Thus, FDI prove to be positively related to economic strength of both FDI-host and -home economies (GDP), while variables of population confirm the relevance of the market size in attracting FDI. However, it should be stressed that investments decrease with the population growth in the FDI-home country, i.e. countries with bigger market are less oriented on exports and foreign markets. GDP/*capita* of the investor's country of origin contributes significantly to increasing investments abroad, while this is not the case with the same variable of FDI-host country. The reason is that foreign investments prefer middle income countries since low income countries have too weak absorption capacity of the home market, while high income ones have too high business costs and therefore deter investments. Described variables (the gravity 'core' variables) vary in values depending on the other variables included in the model. As expected, distance variable realizes stabile negative impact on investments, while trade openness (particularly when measured by trade volume for goods and services) has strong positive impact on foreign investments. Positively related to FDI are privatization revenues indicating relatively strong presence of brownfield investments. Other variables indicating institutional conditions (EBRD-indices) are not statistically significant and are therefore excluded from the model. However, significant, yet with the opposite sign than expected, are unit labour costs and the EBRD-index of small-scale privatization. This reveals that reduction in production costs and participation in 'small' privatization projects were not in focus of FDI coming into transition countries.

Similar situation (regarding *ULCer*, *EBRDssN* and *EBRDlsN*) can be observed in equations 4-6 in which, nevertheless economic openness of the FDI-host economy (*OPEN.*, *TRADEnont*) contributed to investment inflow. This was not the case with contractual relations to the EU or the neighbouring countries (common border) whose variables did not show up as statistically significant. Distance variable is always significant and stabile in value. Variables which closely approximate models of increasing returns to scale (*GDPsim*, *GDPsize*, *GDPdifC*) are relevant in explaining inflows of FDI into transition countries. Regarding high values and the same (positive) sign of the GDP-similarity and GDP-volume indices it can be asserted that FDI have been pulled by the size effect of the transition host markets making the realization of the scale advantages for investors possible. This is confirmed by the negative sign of *GDPdifC* indicating the domination of horizontal market-seeking FDI. Access to new markets

was obviously one of the most important motifs for FDI in transition countries during and following the 90s.

Table 5. Results of the regression analysis (response variable: FDI-stock) for transition countries, 1990-2004

independent variables	equation 1			equation 2			equation 3			equation 4			equation 5			equation 6		
	coeff.	St. error	t-stat.	coeff.	St. error	t-stat.	coeff.	St. error	t-stat.	coeff.	St. error	t-stat.	coeff.	St. error	t-stat.	coeff.	St. error	t-stat.
constant	-28,996	4,646	-6,24	-27,732	3,979	-6,969	-28,996	4,646	-6,24	-22,61	2,339	-9,665	-27,383	4,37	-6,266	-25,648	2,777	-9,237
ln*GDPhost*	0,939	0,206	4,554	1,766	0,065	27,253	1,877	0,097	19,28									
ln*GDPhome*	1,437	0,442	3,249	0,237	0,064	3,728	0,243	0,061	3,974									
ln*POPhost*	0,938	0,26	3,616															
ln*POPhome*	-1,194	0,448	-2,668															
ln*GDPhostC*				-0,409	0,129	-3,18	-0,938	0,26	-3,616									
ln*GDPhomeC*				0,908	0,443	2,049	1,194	0,448	2,668									
ln*GDPsim*										1,604	0,087	18,418	2,003	0,1	19,978	1,775	0,111	15,936
ln*GDPsum*										1,814	0,094	19,279	2,174	0,105	20,779	1,698	0,108	15,796
ln*GDPdifC*										-0,284	0,137	-2,066	-1,085	0,259	-4,19	-0,47	0,152	-3,085
ln*DIST*	-0,569	0,085	-6,707	-0,544	0,88	-6,205	-0,569	0,085	-6,707	-0,509	0,084	-6,05	-0,551	0,082	-6,692			
ln*relDISTperc*																-0,708	0,135	-5,231
ln*relDISTgdp*																		
ln*OPENg*				1,493	0,25	5,985				1,327	0,256	5,194						
ln*OPENgs*	2,518	0,344	7,324				2,518	0,344	7,324				2,535	0,33	7,674	1,892	0,412	4,59
ln*ULC*				0,803	0,24	3,353										0,572	0,259	2,211
ln*ULCer*																		
ln*ULCppp*	1,221	0,264	4,618				1,221	0,267	4,618				1,305	0,262	4,988			
ln*BORD*																		
ln*EU*																		
ln*privrev*	0,177	0,067	2,649				0,177	0,067	2,649	0,241	0,065	3,705	0,16	0,067	2,378	0,197	0,071	2,757
ln*TRADEnont*										1,152	0,373	3,089				1,22	0,381	3,202
ln*EBRDss*	-3,017	1,174	-2,571				-3,017	1,174	-2,571									
ln*EBRDls*																		
ln*EBRDfxt*																		
ln*EBRDssN*													-2,276	1,179	-1,931			
ln*EBRDlsN*														4,37	-6,266	-1,364	0,673	-2,026
ln*EBRDfxtN*																		
R			0,869			0,86			0,869			0,862			0,869			0,863
R²			0,756			0,74			0,756			0,743			0,756			0,744
R² adjusted			0,751			0,736			0,751			0,739			0,752			0,739
St. error of regr.			1,11373			1,16751			1,11373			1,14109			1,11265			1,14057
F-stat.			156,252			187,262			156,252			188,022			176,11			146,64

Source: author's own calculation

5. CONCLUDING REMARKS

By combining two concepts originally taken from international trade theory – factor proportions and imperfect competition – this paper focused on market- and efficiency-seeking FDI. Assuming similarities in production factor endowment and taking account of the proximity-concentration trade off, horizontal or market-seeking FDI occur between similar countries. Contrary to that, in case of significant differences among countries, efficiency-seeking FDI arise searching for lower production costs and vertical production integration. Despite recent fluctuations in global FDI, countries of Central and East Europe kept an increasing pace of FDI-inflow. However, advanced transition countries realized better sectoral structure of foreign investment (high value added manufacturing and services) compared to countries which realized slower reform dynamics. Yet, the outlook for further inflow of FDI into transition countries is positive indicating that market opportunities have not been fully exhausted.

Regression analysis based on insights of the standard gravity model and models of imperfect competition points to main factors which determined inflow of FDI into transition countries. Despite negative impact of differences in GDP among countries, market-seeking FDI dominate owing to other factors. One of the most important was access to new emerging markets for international investors through privatization projects (strategic asset-seeking), though not the small-scale privatization. Trade openness and the share of trade with non-transition countries (access to developed market) played an important role too, while unit labour costs were not detrimental factor to foreign investment. Surprisingly, contractual relations with the EU did not prove significant in regression models as was the case with typical gravity variable – the neighbouring countries. However, all equations include other gravity 'push and pull'-variables (GDP, population) as well as distance variable. Institutional factors did not play an important role in shaping FDI-inflow in transition countries in the past. However, taking into account that the East European markets will soon reach their full potential and that institutional reforms are about to be finalized, while competitive pressure from other markets is increasing, it can be expected that efficiency-seeking FDI will dominate in the future. Therefore, costs of production and institutional conditions will gain significant importance for foreign investments in the years to come.

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ROLE OF CAPITAL IN GROWTH THEORIES: LESSONS FOR CROATIAN ECONOMY

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1. INTRODUCTION

From the beginning of 17-th century, when classical economists imposed the question of economic growth, many theories arose. They all had a same goal – by determining the crucial factors within the production function, proper economic policy can be established and long-term growth will be assured. Classical economists failed in their attempt to capture the essence of the economic growth and same destiny occurred in the research of their predecessors: Marginalists, Keynesians, neoclassical economists and finally different variations of endogenous models of economic growth. However, the results of their productive research have not been in vain. Although these theories that used structural models have not been able to capture the complexity of the growth process, each theory added a significant contribution to understanding of that complex phenomenon. It is hardly fair to expect that any theory is able to do that – but even a rough approximation of macroeconomic reality would be beneficial for the guidelines of government economic policy and development planning.

Regional growth theories arose on the basis of theories of economic growth but diverge from them because "spaceless" growth theories failed to predict trends in regional and local development. They add significant importance to spatial effects on economic growth and location theory in explaining growth patterns of particular areas[1].

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[1] Another mainstream of theories belong to so called "Development theories". These theories are deeply involved in issues of economic development and their focus is not in revealing the theoretical secrets of economic growth but more in practical problems of persistent inequalities in division of national income worldwide. Expression applied on case of developed and underdeveloped countries, regions and localities is often called as "North and South" problem. However, since these theories are more policy oriented and based on theoretical foundations of growth theory, this issue is not included within this text.

Voluminous empirical literature on role of capital accumulation in economic growth gives proof of the complexity of economic growth. The focus of empirical research diverges not only on geographical coverage, but also in using different variables as explanatory variables in the growth equation. These variables influence the production function directly in the form of relations between inputs (like labor, capital, technology, trade etc.) but also indirectly, in the form of conditions in which the process of capital accumulation and formation occurs (rule of law, corruption, effects on aggregate demand, financing of investments, spatial effects, openness, small vs. large countries, etc.)

Theoretical and empirical findings provide help in understanding the crucial elements that are the foundation for positive effects of investments on economic growth. This knowledge should be incorporated in policy recommendations. In the first part of the paper theoretical contributions from the classical theories to recent theoretical findings will be examined. In the second part, significant empirical research will be summarized. At the end, some important lessons are drawn for Croatian economic policy.

2. ROLE OF CAPITAL WITHIN THEORIES OF ECONOMIC GROWTH

2.1. Theories of economic growth

Adam Smith's (1776) book "An Inquiry into the Nature and causes of the Wealth of Nations" had a profound impact on the development of economic theory. Important in Smith's view for the modeling of the growth equation is that the production function is not subject to the law of diminishing returns. On the contrary, Smith thought that the real costs of production will tend to diminish due to the existence of external and internal economies as a consequence of increasing market size. Economies of scale will be realized in production and in marketing because of the greater degree of division of labor and general improvements in machinery. Smith denotes crucial meaning of capital accumulation for division and specialization of labor.

From Smith's theoretical concepts it can be concluded that capital accumulation is the most important endogenous factor of production. Only in the case when capital accumulation is increasing, is the output of the economy also expanding. Several other important of notions of Smith theory can be stated: greater capital stock leads to greater division of labor and, therefore, higher productivity of labor; output is connected with institutional variable (that observation is in line with contemporary economic thought – there are numerous measures on the institutional bases that can be conducted for the growth incentives – free trade, deregulation, decentralization of government and other); Smith connects technological progress with the amount of capital invested (that is in line with endogenous theory of growth); defines the rate of investment to be determined by rate of saving, and saving is motivated by acquiring profits; states that marginal product of capital is falling with more and more capital employed, and as profit is decreasing, more and more capital is employed (in order to keep the previous income level) – therefore, finally, economy comes to the high-level development equilibrium where additional units of capital would not provide any benefits.

It is worthwhile to mention **Thomas Malthus** – who first noted the importance of aggregate demand – according to his view – effective demand has to grow together with the productive potential in order to sustain desired level of profit (as stimulus for investments).

Ricardo's model differs from Adam Smith's in the important assumption that the production function is subject to diminishing marginal productivity because of the fact of fixed supply and quality of land. That constraint imposes that the only source of output growth has to be relation of profit, population growth and wage. Rise of wages and population growth decrease profits, and therefore capital accumulation. That dynamic process occurs until the steady state is reached with no profits and capital accumulation and equal demand and supply for labor. Then technological progress increases the productivity of production factors so tendency towards new, higher equilibrium starts.

Karl Marx stated that improvements in production techniques are regulated by the gross rate of capital formation in the economy, since any piece of capital equipment actually in operation requires fixed amounts of labor to work on it. The rate of innovation is consequently governed by the gross rate of addition to the capital stock of the economy. Like Smith, he relates technological progress with the amount of investments employed. The difference is that he defines technical progress differently than mainstream economists of that time – as the measure of the interaction between techniques of production and the social and economic organization of society. Marx postulated that, generally speaking, technological progress is labor-displacing[2]. In addition, he stated "lows of acceleration" and "centralization" of capital which go together as self-sustaining process. "Every individual capital is a larger or smaller concentration of means of production, with a corresponding command over a larger or smaller labor army. Every accumulation becomes the means of new accumulation. With the increasing mass of wealth which functions as capital, accumulation increases the concentration of that wealth in the hands of individual capitalists, and thereby widens the basis of production on a large scale and of the specific methods of capitalist production" (Marx, 1867, p. 309). However, according to his theory such accumulation of capital will not be beneficial, on contrary; it will lead to the collapse of capitalistic society.

Marginalism denotes a period where more attention was devoted to microeconomic phenomena of the economic theory. As far as growth was concerned, attention is devoted to analysis of structural change and equilibrium growth rate. The most distinctive author whose insights significantly marked the path of economic growth theory was **Schumpeter**. Schumpeter's central insight that a significant number of innovations are large, endogenous, discontinuous, and have their initial impact on particular sectors caused a problem for growth theorists. That assertion meant that these innovations affect not only the structure of the economy as a whole but virtually all of its major variables (the rate of growth of output, the demand for credit, the price level, real wages and the profit rate). The Schumpeter problem was bypassed by the following major devices (Rostow, W.W., 1990, p. 336-337):

- Assume no technical progress and treat growth as a product of an expanding working force and capital stock.
- Assume technical progress is incremental, exogenous, and a function of the passage of time (disembodied).

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[2] That is, he assumed that the techniques of production become more capital-intensive with the passage of time. As an index of this effect Marx used the ratio of constant (plants and raw materials) to variable capital (wage bill) which he called the "organic composition of capital". The rate of change of this ratio (which determines the rate of pace at which the relative displacement of labor in production occurs) depending solely upon the rate of change of technology, which, in turn, depends upon the rate of gross capital formation. So, therefore, organic composition of capital is an increasing function of gross capital formation. The greater the rate of gross investment, the more rapid the increase of the constant capital stock compared with the variable.

- Assume technical progress is embodied in investment and a function of the rate of investment – a kind of return to Smithian incremental technical change in response to the expansion of market.
- Assume all technical change is endogenous but incremental, induced by factor prices, cumulative experience in production, education and other improvement of human capital, and/or by R&D investment.

Keynes caused a dramatic turning point in the economic theory with his book "General Theory of Employment, Interest and Money". It was not just that he reshaped the traditional view on economic theory, but that his theory came as a cure for the crises of economies during the period before the Second World War.

It is worth mentioning that all classical economists had not questioned Say's law – that aggregate supply is automatically matched with aggregate demand. Therefore, they were completely devoted to exploring supply side factors as only sources of economic growth. Keynes focused on the short-run economic equilibrium. For that orientation, equilibrium of the aggregate supply and aggregate demand becomes a matter of issue. He was interested in questioning what way government can raise macroeconomic indicators and employment especially, in the short term. Of course, his efforts were product of economic conditions of that time with high unemployment and worsening macroeconomic indicators. There was a constant shortage of aggregate demand, so he had to introduce some measures to raise it – the only subject able to do that – was government. Keynes ascribes to the government spending the characteristic of multiplicative effects – that are highest for investment. So, in short term, investments raise aggregate demand but in long-term have their effects through the process of multiplication (his conclusions are based on Kahn's work).

In perspective of the Keynesian economy, long-run growth rate will depend on the dynamic interaction of aggregate supply and demand. Later authors showed the specific details of the growth rate of the Keynesian economy. His major argument is that government has to conduct systematic intervention both to promote investment, and at the same time, to promote consumption, beyond the level generated from to a higher level still (see Keynes, p.325). Long-run dynamics between investments and output growth of the Keynesian economy is determined by the dynamic relationship of aggregate demand and aggregate supply.

Latter work of post-Keynesian economists was focused on improving the basic model to fixing some of its flaws that were especially connected with questions of long-term growth rate. The most significant contributors were Harrod (1948) and Domar (1946). Harrod-Domar[3] model introduces the explanation of the long-term growth relationship within the Keynesian economic model. This model can be described as dynamic model of Keynesian static equilibrium. Criticism of Harrod-Domar model stem from the restrictive assumptions (Solow, 2000). Steady-state growth will occur only in the case when the saving rate is the product of capital/output ratio and the rate of growth of the labor force ($s = kn$)[4]. However,

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[3] The model was called Harrod-Domar because both economists came to the same conclusion on causes of economic growth. However, they used different approach: Harrod tried to resolve a question of income rate necessary for desired growth rate under the condition that investments are equal to savings. Domar asked what rate of growth of investment has to be in order to match aggregate supply and demand growth (at full employment).

[4] If the saving rate exceeds product kn - then if the unemployment rate is somehow held constant, so that employment grows as fast as the labor force, each year's saving and investment must be more than enough to provide capital for the annual increment for employment, so the economy must be adding to its excess capacity every year, over and above the normal excess capacity already included in v. alternatively, if the economy insists

numbers s, k and n are independently given facts of nature. The rate of growth of labor supply depends primarily on those demographic factors that influence birth rates and death rates, and on those sociological factors that in the long run influence the choice between participation in the labor force or non-participation. The capital/output ratio is intended to be a technological fact only slightly, if at all, capable of variation in response to economic forces. The saving rate is supposed to describe still another set of facts, attitudes towards consumption and the ownership of wealth. This poses a problem. If s, k, and n are independent constants, then there is no reason at all why it should happen that s=kn.

The basic neoclassical growth model was developed in 1956 by Robert Solow and Trevor Swan. The basic model consists of four variables: output (Y), capital (K), labor (L) and "knowledge" or the "effectiveness of labor" (A). The production function takes the form:

$$Y(t) = F(K(t), A(t)L(t))$$
where t denotes time.

The stated function denotes that output increases over time by increases of quantities of capital and labor. This increase of factors is induced by technical progress. Inputs A and L enter multiplicatively into the equation. The way of entering of factor A will have profound effect on production function. It will determine the function of capital-output ratio. Three possible positions of technological progress (A) create different outcomes:

- if A is multiplied by L, or $Y(t) = F(K(t), A(t)L(t))$, technological progress is labor-augmenting (capital-saving) or Harrod-neutral[5]
- if A is multiplied by K, or $Y(t) = F(A(t)K(t), L(t))$, technological progress is capital-augmenting (labor-saving)
- if A is multiplied by K and L, or $Y(t) = AF(K(t), L(t))$, technological progress is Hicks-neutral

It is assumed that capital-output ratios are constant, so A(t) multiplies L(t) which simplifies the model.

Solow model is extremely simplified – there is only a single good, government is absent, fluctuations in employment are ignored, production is described by an aggregate production function with just three inputs, and the rate of savings, depreciation, population growth, and technological progress are constant (Romer, 1986, p.13). The critical assumption of Solow's model is that there are constant returns to scale with regard to capital and effective labor. Apparently, capital investments play one of the crucial roles under the Solow model as well. Within this model certain amounts of investments are always necessary.

Sollow-Swan model implied that capital investments are not important for the long-term growth rate (they only raise a level of output because they are necessary for supporting the

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on using all capacity it creates by investment, it can do so only by increasing employment faster than the labor force grows, so eventually the economy will run out of labor, and revert to the first state of affairs.

[5] Technological progress is said to be Harrod neutral if the marginal product of capital remains undisturbed at a constant capital-output ratio. Hicks neutrality refers to the ratio of the marginal product of capital to the marginal product of labor that remains unchanged at a constant-capital labor ratio. These definitions impose different restrictions that change production function. Hicks idea was that technological progress is neutral if it does not change the relative prices of factors. Harrod's notion was that given the interest rate, the capital-labor and capital-output ratio is determined (see Arrow and Kurz, 1970, p.18).

growth rate of labor[6]). Therefore, the only mechanism that enables long-term growth of the economy would be then growth rate of technological progress.

What should government do in order to increase national output? The Solow model points to the saving rate that can be increased by beneficial tax treatment for savings and also borrowing (in case that internal accumulation is not sufficient). But, according to the model, permanent increase in saving rate would produce only temporary rise in output. This is because the additional investments would raise output per unit only to the point where they are sufficient to maintain the higher level of capital per labor unit. That is due to the fact that under the assumptions of the model only the rate of technological progress has growth effects, all other changes have level[7] effects. If the assumption is added that additional capital investment influences the rate of the technological progress, the situation changes. With that possibility, a new chapter of theories is opened – this possibility is examined under various "endogenous growth models".

The goal of the new theories of economic growth was to explain the reasons for increase of productivity per worker that was not revealed by the Solow model. He defined growth of effectiveness of labor as exogenous. Even the meaning of the effectiveness of labor was not explained. There are many possible interpretations of Solow residual (A): the education and skills of the labor force, the strength of the property rights, the quality of infrastructure, cultural attitudes toward the entrepreneurship and work, and others (Romer, 2006, p. 28). The major inspiration of the "new" growth theory, which relaxes the assumption of diminishing returns to capital and shows that, with constant or increasing returns, there can be no presumption of the convergence of per capita incomes across the world, or of individual countries reaching a long-run steady state growth equilibrium at the natural rate. If there are not diminishing returns to capital, investment is important for long-run growth and growth is endogenous in this sense. In these "new" models of endogenous growth, pioneered by Arrow (1962), Uzawa (1965), Lucas (1988) and Romer (1986,1990), positive externalities are assumed to be related with human capital[8] formation (for example, education and training) and research and development that prevent the marginal product of capital from falling and the capital-output ratio from rising.

An important motivation for new growth models was to understand variations in long-term growth. As a result, early endogenous growth models orientated on constant or increasing returns ascribed to the production function factors, where changes in saving rates and investment on R&D permanently change growth. Jones (1995) points out that in the second half of last century, the fraction of resources devoted to R&D increased tremendously. Therefore, new growth models with constant and increasing returns would imply that growth rates should also increase proportionally. But that was not the case. The explanation for such

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[6] And neutralize effects of capital depreciation.

[7] As Lucas (2002) pointed out, even granted its limitations, the simple neoclassical model has made basic contributions to the theory of economic growth. Qualitatively, it emphasizes a distinction between "growth effects" – changes in parameters that alter growth rates along balanced paths – and "level effects" – changes that raise or lower balanced paths without affecting their slope – that is fundamental in thinking about policy changes. However, Lucas argues that even sophisticated discussions of economic growth can often be confusing as to what are thought to be level effects and what growth effects. Under classical model one would not expect the removal of inefficient trade barriers to induce sustained increases in growth rates. Removal of trade barriers is, on this theory, a level effect, analogous to the one-time shifting upward in production possibilities, and not a growth effect. Of course, level effects can be drawn out through time through adjustment costs of various kinds, but not so as to produce increases in growth rates that are both large and sustained.

[8] Shultz (1963) introduced importance of the human capital variable.

circumstances would be in decreasing returns on the production function factors (Jones, 2002). With that assumption, empirical findings on the rate of growth would not be surprising. Result of repeated rises in R&D investment would lead to temporary periods of above-normal growth. However, investments in R&D cannot rise indefinitely – if their share in output is low – substantial period of rapid growth can be expected by their increase.

Another explanation of differences in levels of national income was provided by "social infrastructure[9]" effect (see Hall and Jones, 1997). That term, according to them, denotes institutions and policies that align private and social returns to activities. There is a tremendous range of activities where private and social returns may differ. They fall into two main categories. The first consist of various types of investment. If an individual decides to engage in conventional saving, to acquire education, or to devote resources to R&D, his or her private returns are likely to fall short of the social returns because of taxation, expropriation, crime, externalities and so on. The second category consists of activities intended for individual's current benefit. An individual can attempt to increase his or her current income through either production or diversion. Production refers to activities that increase the economy's total output at a point of time. Diversion, (rent-seeking – crime, lobbying for tax benefits) refers to activities that merely reallocate that output. The social return to rent-seeking activities is zero by definition, and the social return to productive activities is the amount they contribute to output. As with investment, there are many reasons the private returns to rent-seeking and to production may differ from their social returns. Hall and Jones (1997) conclude that differences in levels of economic success across countries are driven primarily by the institutions and government policies (or infrastructure) that frame the economic environment in which people produce and transact. Societies with secure physical and intellectual property rights that encourage production are successful. Societies in which the economic environment encourages the diversion of output instead of its production produce much less output per worker. Diversion encompasses a wide range of activities, including theft, corruption, litigation, and expropriation[10].

Inability of general growth theories to provide basis for prediction of economic development of countries and regions proved ground for evolution of different regional theories and models. Regional approach to growth issue is shortly described in text below.

2.2. Regional growth theories

Until the late 1950s there was little direct analysis of the regional growth phenomenon. Myrdal's "cumulative causation" theory (1957), though loosely formulated, has had a persuasive influence on subsequent developments in regional growth theory. After that, a voluminous literature emerged.

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[9] There are many types of social infrastructure. One group consist of government fiscal policy (tax treatment of investments and marginal tax rates on labor income directly affect relationship between private and social returns); second refers to institutions and policies that make up social infrastructure consist of factors that determine the environment that private decisions are made in (laws, enforcement of laws – influence the attractiveness of investment); the final group of institutions and policies that constitute social infrastructure are ones that affect the extent of rent seeking activities by the government itself (corruption within the government) (Romer, 2006, 145-147).

[10] For example, the kind of diversion of resources can have important dynamic concequences for the allocation of talent. Individuals who might otherwise become entrepreneurs will instead devote their energies to rent-seeking or other forms of diversion. The types of skills that an individual accumulates may be those that maximize an individual's chance of securing a position in the government bureaucracy instead of skills that would increase the productive capacity of the economy.

The main point of divergence between regional growth theories and neoclassical theory that gained a foothold in the 1960s was the question of convergence of economic development of regions and countries. According to neoclassical theory, based on abstract assumptions (such as perfect competition, Cobb-Douglas production functions, and constant returns to scale), differences in the level of development between regions should disappear in time. However, despite intervention in most advanced economies the economic problem of lagging regions has persisted. Areas suffering from low incomes, high unemployment, low growth rates and productivity performance and high out-migration rates continue to create difficulties for governments committed to full employment, equal opportunities for all citizens and other worthwhile social goals. In descending from national to the regional level it can be expected to find a range of regional values for economic indicators around the national mean. There must always be some regions that are above average and others that are below average (see Richardson, 1973). The problem is twofold: that the coefficients of variation has in many countries been unacceptably high, with per capita income gaps between the poorest and richest region much too wide for social cohesion and stability; second, that the areas at the bottom of the league have remained the same, and at least in the bottom half of regional growth tables rankings have scarcely altered at all over decades.

Few important issues related with capital accumulation in the context of economic development of regions have to be mentioned. These are specific regional features of infrastructure investments, spatial component, impact of decentralization process and location theory.

There is no argument that infrastructure is a very important (though not the exclusive) potentiality factor for regional development. The following features distinguish infrastructure from other potentiality factors (investment subsidies, tax subsidies, for example) (Nijkamp, 1986, p.4):

- a high degree of publicness (in contrast with the frequent private goods properties of other resources)
- a high degree of immobility (meaning that the costs of a spatial mobility of infrastructure facilities are very high)
- a high degree of indivisibility (implying that the separation costs of such public capital are very high, so that usually problems of over – and undercapacity arise)
- a high degree of non-substitutability (implying high costs for transforming infrastructure capital into alternative or complementary uses);
- a high degree of monovalence (so that the costs of employing infrastructure in a less specialized way are very high).

Therefore, it is apparent that these features of infrastructure make difference in risk between developed and underdeveloped regions, and from that point it is to be expected that capital will naturally be installed in areas with lower risk. Without intervention of government it is likely that differences in growth will diverge.

The spatial component of investment is related to the fact that regions do not have firm boundaries and there is much more mobility of production factors than in case of countries. Because of that, some extent of spill over effects is expected in the case of investment. However, the problem is that these effects are country and region specific, and cannot be incorporated in a general model of regional growth.

Important for development of investment policy is the decentralization process that emerged worldwide and especially in developing and transition economies from 1990s. That process presents an attempt of these countries to catch up with level of development of advanced Western economies. The traditional standpoint of fiscal policy that there is no room for sub-national governments in stabilization policy was abandoned. It is believed that sub-national level investment activity (either in increasing the quantity of investments or structural shift from current to capital expenditures) can have significant multiplicative effects and raise the growth rate and employment of a particular region[11].

Traditional location theory was focused on rates of return to capital, transport cost advantages, cheap labor costs and other key elements. To the extent that the macro-economic growth rates of regions reflect the influence of thousands of micro-locational decisions, understanding how location decisions are reached is essential to explanations of regional growth. Similarly, this understanding is also necessary in order to devise more effective policy measures. Policy is, in effect, one of the major links between the actions of the individual decision takers and their net impact on inter-regional growth differentials that are the very objects of policy. As far as location theory is concerned, evidence is mounting that such factors as access to metropolitan living, social amenities, environmental preferences, and economies of urban agglomeration are more important determinants of location. If these arguments have substance the appropriate policy implication is not monetary subsidies but more interventionist planning to influence the spatial distribution of resources, population and economic activities within regions, particularly the intra-regional urban pattern. This further implies that regional economic policy and physical planning are not independent but are highly inter-connected (see Richardson, 1973).

3. EMPIRICAL FINDINGS

Research on the relationship of capital and economic growth has been intensified by development of neoclassical theory and growth accounting. For the first time it was possible to distinguish the contributions of individual factors of production on economic growth. Previously, relations between inputs in production function were examined by use of input-output techniques, capital-output ratios and short-run multipliers and laid much of the emphasis on the demand side of the economy. The new approach offered possibility of exploring the long-term effects of factors of economic growth and it was supply-side oriented.

Evolution of empirical contributions to the relevant issue begins by papers of Abramowitz (1956) and Solow (1957). Empirical findings of Abramowitz (1956) and Solow (1957) disturbed the mainstream of economic thought in this period. There was a deep belief in the importance of capital investments in economic growth. Almost all theories of economic growth supported that opinion. In addition, neoclassical theory had many opponents especially because of the neoclassical concept that capital does not play major role in the long-term growth of the economies. Abramowitz and Solow showed that 80-90 per cent of growth of output per head in the US economy in the first half of the twentieth century could not be accounted for by increases in capital per head. Even allowing for the statistical difficulties of computing a series of capital stock, and the limitations of the function applied

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[11] for example, see Terr-Minnassian (1997).

to the data (for example, the assumption of constant returns and neutral technical progress, plus the high degree of aggregation), it was difficult to escape from the conclusion that the growth of capital stock was of relatively minor importance in accounting for the growth of total output.

After that research, there was a certain period of shortcoming in volume of literature on growth and investments[12]. That period lasted until the year 1989 when Ashauer's paper "Is Public Infrastructure Productive?" was published. On the bases of aggregate production function with Hicks-neutral technical change (data in levels) Ashauer estimated that elasticity of output on public capital is 0.39. That finding disturbed the economists because it offered explanation for recent productivity decline of U.S. economy[13].

However, his paper raised many criticisms. They were especially pronounced because of incredibly high rates of returns of public infrastructure increases. Issues of the validity of econometric techniques are raised as well. That was especially because of use of time series data in levels that are considered to be useful only as a preliminary data analysis. This is due to fact that time series are dominated by trend and therefore do not contain much information about inflection points that denote interdependency between variables. Due to the influence of trend, time-series data that are not processed through various methods such as detrending, differencing and others give good fits and give bias to coefficients. They increase estimators if there is a correlation between variables. Furthermore, critics had pointed out that direction of causality is ambiguous – more private output could lead to an increase in the demand for public capital. Possibility of spurious correlation was also accented (see Gramlich, 1994). Ashauer's (1990) later paper finds smaller coefficients for public capital, 0.11, but nevertheless criticism of his methods remained.

During the 1990s research in this area has risen exponentially. There are several reasons for such developments. First of all, Ashauer's paper was launched at the time when economists were trying to explain the reasons for productivity decline in the US, and shortcoming of investments was a plausible and possible reason. In addition, datasets on capital stocks and investments due to improvements of methodology in collecting and processing of data provided much better basis for conducting econometrical examinations. Furthermore, there was a tremendous improvement and development in various econometric techniques. Within the time series analysis techniques many new concepts emerged and that was especially applicable in the area of macroeconomics. Finally, it is not irrelevant that longer time spans of the data helped in better estimation by benefit of larger sample sizes. Of course, it has to be pointed out that the majority of research was conducted for U.S. economy with rare exceptions – Netherlands and Spain. European countries still do not have appropriate data sets on capital stocks so therefore it is expected to see a rise of research in that area in EU from the year 2000.

Criticisms of the traditional production function approach motivated empirical research to make use of the cost production function approach and the profit function approach. The basic

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[12] Few studies published in that field had regional scope. For example, Mera (1973) examined effects of public capital on the regional productivity of Japanese regions and found significant positive effects. Looney and Frederiksen (1981) studied the link between income, productivity and public capital for the Mexican states. Although these papers denoted that public infrastructure has significantly positive impact on economic growth, there was not much attention focused on that findings.

[13] Shortly after his paper, Munell (1990) finds more moderate results for the elasticity of public capital, but still significantly positive.

idea of cost function approach is that private firms are assumed to produce a given level of output at minimum cost. In this approach factor prices are exogenous variables while labor input and private capital are endogenous variables to be derived from the firm's optimization problem. The cost function model has the advantage over the single-equation production function model in that it uses information about total cost and individual input shares to determine the parameter estimates. This constitutes a major difference to the production function approach where the factors of production are taken as exogenously given. A major difference is that the cost function approach takes output as exogenously given while the profit function approach takes the price of output as given. The profit function model uses information on profit as well as profit ratios to determine parameter estimates and therefore, like the cost function model, should provide more efficient estimates. The profit function model has no a priori advantage over the cost function model (see Vijverberg, 1997, p. 269).

Development of Multivariate time-series and introduction of VAR (vector-autoregression) into microeconomics by Sims (1980) opened a new chapter in examination of public-private investment on economic growth. Important contribution was endogeneity of variables that is inherent in the VAR method and the possibility of examination of causality directions between variables. From the 1990s many authors use VAR methodology. The idea of making public capital an endogenous variable in a macro growth system has been pursued by Flores de Frutos and Pereira (1993). They find very high rates of return on public capital, almost as high as those found by Aschauer.

Economic models that incorporate spatial effects have gained a foothold in mainstream economic literature. The estimation of these models is commonly carried out using spatial econometric techniques. One of the harshest criticisms of the spatial econometric models is the use of ad hoc spatial weighting matrices. The criticism stems from the lack of empirical justification for any type of weight matrix in particular and that small changes in the spatial weight matrix often result in changes to the model results. It has been suggested that flexibility needs to be incorporated into the specification of the spatial weight matrix. However, flexibility introduces further estimation issues.

Over the past ten years a large body of literature has emerged developing methods for the analysis of nonstationary panel models. An extensive treatment of methods for panel data analysis in general can be found in Baltagi (2001) and Hsiao (2003). An interesting result from the panel literature is that in contrast to pure time-series analysis with nonstationary panels many test statistics and estimators have normal limiting distributions. But so far there was little use of nonstationary panel models in the analysis of effects of public capital.

However, in spite of these mentioned developments, effects of public investments on output growth are still empirically ambiguous. Extensive reviews of the literature and the different methodological approaches are presented by Kamps (2004) and Sturm (1998).

Within the theoretical part of this research, complexity of effects of public and private investments was distinguished. It is clear that simple increase of investment in some sector of economy does not mean that output will increase accordingly. That is not certain even in the case of evident high influence on productivity growth. The reason is in fact that this positive influence can be offset by numerous direct or indirect phenomena's that occur in the process of financing, operating an implementing investment projects. Understanding of these channels is crucial for determining the policy recommendations in particular economy. Therefore, it is

useful to isolate specifically topics that were considered important to cover in empirical examinations in field of investment effects. Some major strands of literature can be isolated:

1. Effects of financing public investment – these effects are related to the fact that costs of capital in regions and countries diverge (especially between small and large ones, or developed or underdeveloped economies), existence of crowding-out effects (in case of extensive public borrowing and limited capital market it is likely that crowding-out of private investments will occur).
2. Spatial effects of public investments – there is growing literature on impact of regional investments on regional inequality. Existence of spillovers during the investment process makes regional planning of investment an important tool of regional policy (optimal location of investments)[14].
3. Question of optimal provision of public investments – it is obvious that economies and regions on different level of development demand different levels of capital investments. Keynesian theory advocates strong government intervention in raising investment levels in case of excess capacity of production factors in economy. Structure of investments also changes in transition to more developed economy (see Thirlwall, 2003).
4. Efficiency of public investments – more and more attention is devoted to questions of efficiency of investments. That issue is usually connected with existence of corruption. Extensive review of relation of capital accumulation and corruption can be found in Tanzi (1998) and Mauro (1996).

Previously mentioned issues that make just some of important factors for positive or negative sign of contribution of capital accumulation to economic development have to be incorporated in government policy. Therefore, effects of capital accumulation are country (and region) specific. In following part, Croatian investment policy is examined.

4. ROLE OF CAPITAL IN CROATIAN ECONOMY

Understanding of role of capital in Croatian economy is complex. This is due to many reasons. First of all, Croatia belongs to a group of "transition economies" that turned to capitalism and at the same time gained sovereignty. In addition, war that ended in year 1998 made substantial direct and indirect damages. From the beginning, privatization of public enterprises started and it is hard to capture public and private ownership on assets in such circumstances. Data on capital accumulation are also doubtful and official capital stock estimates still do not exist. Due to these reasons lack of empirical studies on capital accumulation effects in Croatia is not surprising. The only exception is the study of Lovrinčević et al. (2004) that dealt with efficiency of investments based on incremental capital-output ratio. That study showed substantial differences between efficiency of private and public investments. According to that research public investments in Croatia are much more inefficient in comparison with private investments (however, that is not surprising).

As a candidate for EU membership it is interesting to see what trend is present in the ratio of gross fixed capital formation in GDP in Croatia. Figure 1 shows data in period from 1996 to 2004. Apparently, Croatian investment policy did not have same patterns as the

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[14] see Mikelbank and Jackson (2000)

majority of EU countries. It is important to mention that impact of EU fiscal rules on shortage in capital accumulation in EU countries is recently heavily criticized as a cause of low growth rates of EU economies (see Blanchard, 2004). However, it is not surprising that the level of investment in Croatia remained on high level. Croatian public debt increased tremendously and privatization revenues were enormous. Sever (2005) estimated that growth rates of economy in case that revenues gained from borrowing and privatization were utilized on investments (and efficiently) much more than actual ones (several times higher).

It has to be mentioned that macroeconomic indicators of Croatian economy in period from year 1996 to year 2006 are stabile – growth rate moves around 4% on average, low inflation rate around 3% and there is a persistent rate of unemployment (around 20%)[15]. According to these data it can be stated that Croatian economy is characterized by low-level equilibrium state (or utilization of resources). These features imply that some kind of Keynesian policy could be successful – in terms of efforts toward higher utilization of capacities.
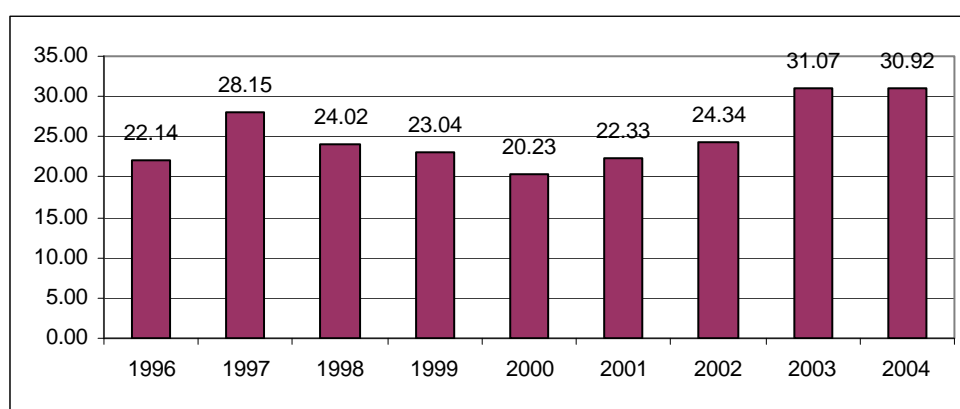
Figure 1: Ratio of gross fixed capital formation in GDP in Croatia

Source: Croatian Central Bureau of Statistics

However, closer focus on the institutional aspect of capital accumulation issues reveals much inefficiency. Figure 2 shows interest rates on long-term loans for corporate sector in Croatia in the period from 1996 to 2006. Figure can be good approximation of monetary circumstances in which capital accumulation occurred. It is evident that the cost of capital was extremely high. In addition, Croatia entered into international capital markets in year 1998 with a low credit rating (although, much lower interest rates than in domestic market). However, liquidity problems during 1990s definitely prove the existence of significant crowding out of private sector investments.

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[15] Review of Croatian macroeconomic indicators is given at Annual reports of Croatian Ministry of Finance, available at http://www.mfin.hr/
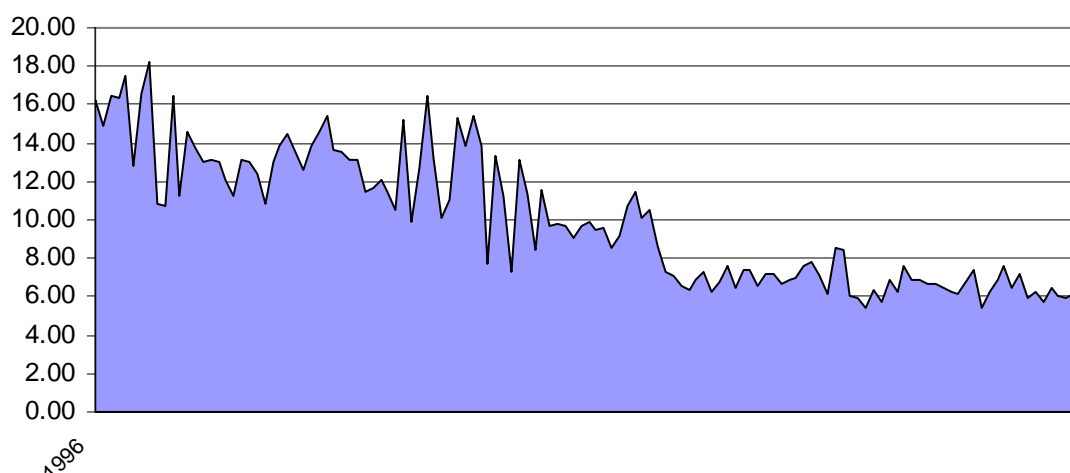
Figure 2: Interest rates on long-term loans for corporative sector in Croatia in period of January, 1996 to September of 2006

- based on Kuna (without currency clausule)
- monthly weighted ponders, in annual percentage

Source: Croatian National Bank, http://www.hnb.hr/ (December, 01, 2006.)

Uncertainty and risk of investment undertakings was certainly accented by weak enforcements of laws and judiciary system. That institutional weakness and strong government bureaucracy certainly contributed to occurrence of corruption. According to the corruption index estimated by Transparency International[16], Croatia did not make large improvements in that matter (69[th] rank among 163 countries).

In addition, Croatia does not have consistent development policy. Investment policy is subjected to short-sited political horizons and these decisions are usually discretionary. Therefore, misallocation of investments, either sectorally and/or regionally is to be expected.

However, according to theoretical and empirical findings, circumstances of Croatian economy demand high investment levels. Long period of low-level equilibrium growth of Croatian economy (especially high level of unemployment) demands proactive investment policy. It is irrelevant whether that will be made by government directly or private sector (supported by government interventions in loans or subsidies). Contemporary economic doctrine suggests coordination of activities – additional investments have to be supported by appropriate institutional surroundings.

5. CONCLUSION

Theoretical and empirical research of the effects of capital accumulation on economic growth has not yet arrived to final conclusion. However, voluminous evidence accumulated since 17[th] century, made clear some general principles. Capital accumulation cannot be beneficial only by itself. It has to be supported with numerous economic and non-economic factors specific to a certain economy or region. In a globalized world, more and more important factors that

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[16] Ranking list for the year 2006 is available at http://www.infoplease.com/ipa/A0781359.html

determine effectiveness of capital investment is "social infrastructure". Social infrastructure presents catalyst for and capital accumulation fuel for economic growth.

Development and investment policy has to incorporate specificity of particular economic entity. Therefore, Croatian investment policy needs to have in mind that Croatia is on the low-level equilibrium of economic development and large infrastructure needs. In the same time, constraints are imposed due to unfavorable social infrastructure that could eliminate the positive effect of capital accumulation. However, at present moment, capital investments are employed in much better circumstances, and therefore it is likely that effects of these investments will be much more beneficial than those undertaken in recent past.

Lack of necessary data presents obstacle to empirical investigation of role of capital in Croatian economy. However, improvement of statistical database on capital investments and stocks in Croatia, and progress of methodology and econometric theory and practice will enable estimation. That should be goal of future papers.

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CHARACTERISTICS OF REGIONAL DEVELOPMENT IN THE REPUBLIC OF CROATIA AND MODELLING A DATABASE AIMED AT ITS MONITORING AND PREPARING ADEQUATE MEASURES OF ECONOMIC AND SOCIAL POLICIES

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Abstract

The Republic of Croatia is making advances towards full EU membership. This large community of countries and peoples is characterized by rich diversity. One of the most sensitive and complex issues for its members is uneven economic development. Various indicators reveal that Croatia is currently attaining macroeconomic performance of lesser-developed members of the European Union, which means that it fulfils the basic prerequisites for full membership. However, in comparison to the developed EU countries, there are significant disparities in the level of economic development. In addition, Croatia is burdened with a rather uneven economic development of its regions, which is a result of a number of factors. Although these differences cannot be completely eliminated, extra effort should be made to alleviate them in the forthcoming years. If the current negative trends are to be reversed, Croatian counties need to formulate adequate development strategies that would take into account all their regional specific qualities. This paper will try to identify the basic features of regional development in Croatia on the basis of available indicators, and to formulate a possible framework for economic and social policies that could be used to alleviate current inequalities. A special problem in the analysis of regional development appears to be the insufficiency of data. Another goal of this research is therefore to emphasize how important it would be to construct a database model which would enable us to systematically monitor regional development, and which would be the information basis for proposing appropriate measures of economic and social policies.

Key words: *regional development, economic and social policies, development strategies, development indicators, database model*

1. INTRODUCTION

One of the crucial problems facing the European Union (EU) is unequal development of its member states. The difficulties, which are characteristic of economic trends in the EU in recent years, suggest that this problem is likely to persist in the foreseeable future. According to basic macroeconomic indicators, the Republic of Croatia is currently at the level of development of some less developed countries already in the EU, or at the brink of membership. Considering previous achievements of Croatian economy and its future prospects, these results are far from satisfactory, especially if comparisons are drawn with EU members with best macroeconomic performance.

The forthcoming accession to the EU will more strongly bring into focus the problem of uneven development of Croatian regions. It is evident in many areas of social and economic life to a greater or lesser degree. These trends resulted from a number of factors, which can be classified into several basic categories.

Economic development of a particular region was always, especially in the past, crucially affected by its natural environment, i.e. its geographic and climatic features. At a time when socio-economic relations were less developed, traffic connections were poor, and trade was weak, regional economic structure was primarily formed according to natural limitations and possibilities. Thus in lowland areas, rich in arable land, agriculture used to be the prime source of livelihood, whereas in coastal areas people lived predominantly from fishing and wine growing.

Economic development has always been significantly affected by political circumstances as well. Since the larger region has always been the arena of conflicting foreign interests, Croatian regions were frequently under different foreign rule, which contributed to their heterogeneous socio-economic conditions. Another factor, which must not be disregarded, is the negative impact of turmoil and instability in domestic politics. It should be pointed out that uneven regional development has often been aggravated by frequent changes in regulations and administrative and territorial constitution, which continue to this day. Ineffective measures of economic and social policies, taken with the aim of mitigating the unequal development of Croatian regions, and/or failure to implement those measures, made the situation even worse.

In its most drastic form, uneven development of Croatian regions is also a consequence of the war of 1990ies. These recent events show that the regions affected by greater devastation have to make extreme efforts to repair the destruction and overcome the lagging they are subjected to. This process cannot be successfully completed without adequate assistance of the Croatian government and international community.

In modern business conditions, unequal regional development is probably encouraged by basic economic laws, according to which capital is invested into regions and activities likely to bring best profits. Consequently, the investment process is more intensive in developed regions, i.e. in those regions that can provide sufficient demand for products and/or services of the potential investor. As a rule, such regions already have adequate infrastructure and can offer trained personnel required for starting investment cycles. This provides additional impetus for the development of regions, which are already ahead of others. A logical consequence of these processes is the widening gap in the level of development between particular regions.

One of the aims of this study is to point out the basic characteristics of regional development in the Republic of Croatia, in accordance with the country's current administrative and territorial constitution. Due to the limited scope of the paper, as well as the lack of adequate data, only a selection of statistical indicators will be presented and explicated here. Their analysis cannot provide complete understanding of all the disproportions in regional development. However, such indicators can help to form basic ideas on the level of development of particular Croatian counties. Furthermore, the paper will try to identify the failures in economic and social measures, which were taken in an attempt to halt the lagging of certain Croatian regions. Finally, we shall propose possible guidelines for future activities of state and regional administration aimed at mitigating the existing inequalities.

The effects of activities undertaken cannot be properly evaluated without an adequate database encompassing all the relevant indicators connected with regional development issues. For this reason, we shall be proposing below some guidelines for modelling an adequate database that would be the information basis for continuous monitoring of regional development in the Republic of Croatia, and for instituting measures of economic and social policies. The policy of regionalism conducted by the European Union obliges Croatian authorities to begin assembling such an integral database without delay. The benefits to be expected from this database are definitely far greater than the costs of its modelling, construction and maintenance.

2. BASIC DATA ON THE REPUBLIC OF CROATIA AND ITS ADMINISTRATIVE AND TERRITORIAL CONSTITUTION

Determining the level of regional development can be approached in several ways. In order to better understand the defined issues, our analysis will begin with the basic data on the Republic of Croatia and its administrative and territorial constitution.

The Republic of Croatia is comprised of 20 counties and the City of Zagreb. As of 31 December 2004, there were 124 localities with the status of town and 426 municipalities in Croatia. Table 1 contains the data referring to the surface area, population and population density in Croatia and its counties (including the City of Zagreb).

Table 1. Surface area, population and population density per km² in Republic of Croatia and its counties

County	Surface area (km²)	Surface area, share (%)	Population in 2001	Population in 2001, share (%)	Population density per km²	Population density per km² (Republic of Croatia = 100)
County of Zagreb	3060	5.41	309696	6.98	101.21	129.08
County of Krapina-Zagorje	1229	2.17	142432	3.21	115.89	147.81
County of Sisak-Moslavina	4468	7.89	185387	4.18	41.49	52.92
County of Karlovac	3626	6.41	141787	3.20	39.10	49.87
County of Varaždin	1262	2.23	184769	4.16	146.41	186.73
County of Koprivnica-Križevci	1748	3.09	124467	2.80	71.21	90.81
County of Bjelovar-Bilogora	2640	4.66	133084	3.00	50.41	64.29
County of Primorje-Gorski kotar	3588	6.34	305505	6.88	85.15	108.59
County of Lika-Senj	5353	9.46	53677	1.21	10.03	12.79
County of Virovitica-Podravina	2024	3.58	93389	2.10	46.14	58.85
County of Požega-Slavonia	1823	3.22	85831	1.93	47.08	60.05
County of Slavonski Brod-Posavina	2030	3.59	176765	3.98	87.08	111.05
County of Zadar	3646	6.44	162045	3.65	44.44	56.68
County of Osijek-Baranja	4155	7.34	330506	7.45	79.54	101.45
County of Šibenik-Knin	2984	5.27	112891	2.54	37.83	48.25
County of Vukovar-Sirmium	2454	4.34	204768	4.61	83.44	106.42
County of Split-Dalmatia	4540	8.02	463676	10.45	102.13	130.26
County of Istria	2813	4.97	206344	4.65	73.35	93.55
County of Dubrovnik-Neretva	1781	3.15	122870	2.77	68.99	87.99
County of Međimurje	729	1.29	118426	2.67	162.45	207.18
City of Zagreb	641	1.13	779145	17.56	1215.51	1550.23
Republic of Croatia	56594	100.00	4437460	100.00	78.41	100.00

Source: Statistički ljetopis Republike Hrvatske 2005., p. 62.

The City of Zagreb accounts for only 1.13% of the total surface area of Croatia, but, according to the 2001 Census, it was populated by 17.56% of all the inhabitants of our country. Accordingly, population density in the City of Zagreb is several times higher than the average population density in Croatia. County of Lika-Senj has the biggest surface area, with the lowest number of people per square kilometre. In most of the other counties, there is also significant disproportion between their surface area and population density. These data can be taken as an indication of uneven regional development.

3. INDICATORS OF REGIONAL DEVELOPMENT IN CROATIA

If differences in the level of development between regions are to be presented realistically, the research needs to identify adequate indicators. Gross domestic product (GDP), as the market value of all goods and services produced within state, or regional, borders during a certain accounting period, is certainly one of the basic macroeconomic indicators. Although it is not used to measure the living standards of population in particular regions, it can nevertheless show the intensity of business activities. The data on GDP for the Croatian counties have been recorded only for the past few years. Table 2 shows the data on GDP generated in the year 2003, given in HRK and EUR. For the sake of comparability, GDP per capita has been determined, and the associated structure calculated. It should be noted that the improved methodology of GDP calculation for particular counties is likely to cause the revision of the stated data in future periods.

Table 2. Gross domestic product of the Republic of Croatia and its counties in 2003, total and per capita, given in HRK and EUR

County	GDP (mln HRK)	GDP (mln EUR)	GDP, share (%)	GDP per capita (HRK)	GDP per capita (EUR)	GDP per capita (Republic of Croatia = 100)
County of Zagreb	10480	1386	5.28	33165	4385	74.21
County of Krapina-Zagorje	4556	602	2.30	32427	4287	72.55
County of Sisak-Moslavina	6290	832	3.17	34409	4549	76.98
County of Karlovac	4831	639	2.43	34730	4592	77.71
County of Varaždin	7709	1019	3.89	42080	5564	94.16
County of Koprivnica-Križevci	5275	697	2.66	42817	5661	95.80
County of Bjelovar-Bilogora	4367	577	2.20	33387	4414	74.70
County of Primorje-Gorski kotar	16100	2129	8.11	52770	6977	118.07
County of Lika-Senj	2449	324	1.23	46208	6109	103.38
County of Virovitica-Podravina	3105	411	1.56	33677	4453	75.36
County of Požega-Slavonia	2754	364	1.39	32248	4264	72.16
County of Slavonski Brod-Posavina	4528	599	2.28	25698	3398	57.51
County of Zadar	5936	785	2.99	35802	4734	80.12
County of Osijek-Baranja	11059	1462	5.57	33634	4447	75.26
County of Šibenik-Knin	3536	468	1.78	31127	4115	69.64
County of Vukovar-Sirmium	5203	688	2.62	25694	3397	57.49
County of Split-Dalmatia	15839	2094	7.98	33628	4446	75.24
County of Istria	12814	1694	6.46	61429	8122	137.45
County of Dubrovnik-Neretva	4896	647	2.47	39516	5225	88.42
County of Međimurje	4241	561	2.14	35819	4736	80.15
City of Zagreb	62454	8257	31.48	80069	10586	179.15
Republic of Croatia	198422	26235	100.00	44689	5909	100.00

Source: "Bruto domaći proizvod za Republiku Hrvatsku i županije od 2001. do 2003.", http://www.dzs.hr

Almost one third of Croatian GDP is generated in the City of Zagreb, which is populated by 17.56% of the country's inhabitants. Five more counties: Primorje-Gorski kotar, Split-Dalmatia, Istria, Osijek-Baranja and Zagreb each accounted for more than 5% of total GDP in 2003. It follows that these counties, including the City of Zagreb, account for 53.97% of Croatia's population, but generate together 64.88% of the country's GDP. These counties are also home to the four largest towns in Croatia, which are centres of wider regions around them. The City of Zagreb has the highest GDP per capita. In 2003, in addition to Zagreb, GDP per capita higher than Croatian average was generated only by County of Istria, County of Primorje-Gorski kotar and County of Lika-Senj. It should be noted that the relatively high GDP per capita in County of Lika-Senj, which has low population density, was to a great extent the result of motorway construction works. The lowest GDP per capita was recorded in County of Vukovar-Sirmium and County of Slavonski Brod-Posavina. In comparison to the City of Zagreb, County of Vukovar-Sirmium generated 3.12 times lower GDP per capita. Since other counties in the region of Slavonia and Baranja also have significantly lower GDP per capita than the Croatian average, underdevelopment of this region is becoming increasingly obvious. Lower level of business activities is noticeable also in the counties in the region of Dalmatia, however, the situation is not so severe: they had GDP per capita, which was lower than the country average by between 11.58% and 30.36%. In general, most of the other counties do not perform much better in economic affairs.

The data on the employed and unemployed persons in the Republic of Croatia and its counties, referring to March 2005, with accompanying structures and unemployment rates are given in Table 3.

Table 3. Number of employed and unemployed persons, with accompanying structures, and unemployment rate in the Republic of Croatia and its counties in March 2005

County	Persons in employment, situation as on 31 March 2005	Persons in employment, share (%)	Average number of unemployed persons in March 2005	Average number of unemployed persons, share (%)	Unemployment rate (%)
County of Zagreb	78402	5.60	14272	4.34	15.40
County of Krapina-Zagorje	36837	2.63	6436	1.96	14.87
County of Sisak-Moslavina	45051	3.22	19673	5.98	30.40
County of Karlovac	37720	2.69	14091	4.28	27.20
County of Varaždin	61113	4.36	10810	3.29	15.03
County of Koprivnica-Križevci	37641	2.69	8552	2.60	18.51
County of Bjelovar-Bilogora	34975	2.50	12367	3.76	26.12
County of Primorje-Gorski kotar	111366	7.95	19115	5.81	14.65
County of Lika-Senj	13668	0.98	3972	1.21	22.52
County of Virovitica-Podravina	23520	1.68	10323	3.14	30.50
County of Požega-Slavonia	21700	1.55	6061	1.84	21.83
County of Slavonski Brod-Posavina	37117	2.65	16627	5.05	30.94
County of Zadar	43745	3.12	12609	3.83	22.37
County of Osijek-Baranja	88174	6.30	34368	10.45	28.05
County of Šibenik-Knin	27460	1.96	11092	3.37	28.77
County of Vukovar-Sirmium	41723	2.98	21078	6.41	33.56
County of Split-Dalmatia	134941	9.63	41976	12.76	23.73
County of Istria	80759	5.77	7803	2.37	8.81
County of Dubrovnik-Neretva	36951	2.64	9215	2.80	19.96
County of Međimurje	36257	2.59	7437	2.26	17.02
City of Zagreb	371524	26.53	41143	12.50	9.97
Republic of Croatia	1400644	100.00	329020	100.00	19.02

Sources: Statističke informacije 2006., Republika Hrvatska - Državni zavod za statistiku, Zagreb, 2006., p. 81.;
"Nezaposlene osobe po županijama", http://www.hzz.hr

Unemployment is without doubt one of the major macroeconomic problems. Since unemployment is not only an economic category, but also a very sensitive social issue, it should be kept at a level that will not disturb the overall socio-economic relations and efficiency of the economic system. Although we have witnessed certain steps forward in solving the unemployment problem in recent years, the results are far from satisfactory. The total unemployment rate in Croatia in March 2005 was as high as 19.02%. The calculated unemployment rates indicate that there are big differences in the share of unemployed persons from region to region. As could be expected, unemployment is not as high in the counties which generate higher GDP per capita. Thus in March 2005, the lowest unemployment rate was recorded in County of Istria. Apart from this county, unemployment rate lower than 10% was recorded only in the City of Zagreb in the same month. The highest unemployment rate was determined in County of Vukovar-Sirmium, where almost every third person of working age was out of work. In comparison to County of Istria, unemployment rate was 3.81 times as high in County of Vukovar-Sirmium. In the observed period, unemployment rates higher than 30% were recorded in County of Slavonski Brod-Posavina, County of Virovitica-Podravina and County of Sisak-Moslavina.

Table 4 shows the data on the number and structure of active legal entities, as well as the number of business entities in crafts and trades and free lances in the Republic of Croatia and its counties. On 31 December 2004, there were 31683 active business entities in the City of Zagreb, which accounted for 32.8% of their total number in Croatia. Such a high number of active legal entities operating in the City of Zagreb also show the striking concentration of

Croatian economic potentials within a relatively small area. Regarding the number of active legal entities, the City of Zagreb is followed by County of Split-Dalmatia, County of Primorje-Gorski kotar and County of Istria. These three counties together with the City of Zagreb were the seat of 60.28% of active legal entities with headquarters in the Republic of Croatia. With the exception of County of Split-Dalmatia, it can be stated that the greater number of active legal entities contributes to the increase of GDP.

Table 4. Number and structure of active legal entities, and of business entities in crafts and trades and free lances in the Republic of Croatia and its counties on 31 December 2004

County	Active legal entities, total	Active legal entities, share (%)	Business entities in crafts and trades and free lances	Business entities in crafts and trades and free lances, share (%)
County of Zagreb	5920	6.13	6564	6.80
County of Krapina-Zagorje	1682	1.74	3068	3.18
County of Sisak-Moslavina	2185	2.26	2618	2.71
County of Karlovac	2155	2.23	2653	2.75
County of Varaždin	2948	3.05	3350	3.47
County of Koprivnica-Križevci	1736	1.80	1896	1.96
County of Bjelovar-Bilogora	1774	1.84	1931	2.00
County of Primorje-Gorski kotar	8666	8.97	9228	9.56
County of Lika-Senj	730	0.76	1082	1.12
County of Virovitica-Podravina	1023	1.06	1392	1.44
County of Požega-Slavonia	929	0.96	1182	1.22
County of Slavonski Brod-Posavina	1686	1.75	3144	3.26
County of Zadar	2588	2.68	4439	4.60
County of Osijek-Baranja	4331	4.48	4718	4.89
County of Šibenik-Knin	1912	1.98	2534	2.63
County of Vukovar-Sirmium	1596	1.65	3105	3.22
County of Split-Dalmatia	10469	10.84	10521	10.90
County of Istria	7408	7.67	8175	8.47
County of Dubrovnik-Neretva	2676	2.77	2570	2.66
County of Međimurje	2492	2.58	1998	2.07
City of Zagreb	31683	32.80	20347	21.08
Republic of Croatia	96589	100.00	96515	100.00

Source: Statistički ljetopis Republike Hrvatske 2005., p. 643.

On 31 December 2004, the City of Zagreb accounted for 21.08% of all business entities in crafts and trades, as well as free lances registered in the Republic of Croatia. Even though this is the highest share, it is by one third lower than the share of active legal entities doing business in the City of Zagreb. Regarding the number of business entities in crafts and trades and free lances, the City of Zagreb is again followed by County of Split-Dalmatia, County of Primorje-Gorski kotar and County of Istria. It can be stated that other Croatian macro regions have a smaller number of active legal entities and business entities in crafts and trades and free lances. The data show that County of Zagreb was the only one of the remaining counties where the share of active legal entities and business entities in crafts and trades and free lances exceeded 5%.

Investments can be simply defined as the total value of spending intended for future use. Since they are a component of aggregate spending, capital investments have direct consequences in the increase of total economic activities and GDP. In addition, by improving capital equipment, investments can also contribute to the growth of production and standard, thus creating preconditions for further economic advancement. Investments are, therefore, a generator of economic development. Insufficient investments result in long-term lagging. In

the analysis of basic characteristics of regional development, special attention should thus be given to the issue of investments. Table 5 shows the data on gross fixed capital formation in fixed assets by technical composition and headquarters of investor in 2003.

Table 5. Gross fixed capital formation in fixed assets by technical composition and headquarters of investor in 2003

County	Gross fixed capital formation in fixed assets							
			Technical composition					
			Construction works		Equipment		Other	
	Total (thousand HRK)	Share (%)	Amount (thousand HRK)	Share in total (%)	Amount (thousand HRK)	Share in total (%)	Amount (thousand HRK)	Share in total (%)
County of Zagreb	1675657	3.05	864332	51.58	549836	32.81	261489	15.61
County of Krapina-Zagorje	708888	1.29	323940	45.70	346138	48.83	38810	5.47
County of Sisak-Moslavina	431147	0.78	172945	40.11	245048	56.84	13154	3.05
County of Karlovac	647818	1.18	270766	41.80	319638	49.34	57414	8.86
County of Varaždin	1154128	2.10	513410	44.48	551120	47.75	89598	7.76
County of Koprivnica-Križevci	706509	1.29	297500	42.11	367582	52.03	41427	5.86
County of Bjelovar-Bilogora	429642	0.78	189630	44.14	232055	54.01	7957	1.85
County of Primorje-Gorski kotar	2828396	5.15	1472492	52.06	1240766	43.87	115138	4.07
County of Lika-Senj	168048	0.31	108082	64.32	51630	30.72	8336	4.96
County of Virovitica-Podravina	290220	0.53	133084	45.86	150560	51.88	6576	2.27
County of Požega-Slavonia	296650	0.54	169943	57.29	116603	39.31	10104	3.41
County of Slavonski Brod-Posavina	400252	0.73	216181	54.01	168283	42.04	15788	3.94
County of Zadar	958604	1.74	535975	55.91	364013	37.97	58616	6.11
County of Osijek-Baranja	1455314	2.65	592129	40.69	725751	49.87	137434	9.44
County of Šibenik-Knin	728666	1.33	394209	54.10	298423	40.95	36034	4.95
County of Vukovar-Sirmium	568690	1.03	284085	49.95	263257	46.29	21348	3.75
County of Split-Dalmatia	2712579	4.94	1423972	52.50	1043946	38.49	244661	9.02
County of Istria	2091375	3.81	1058652	50.62	874648	41.82	158075	7.56
County of Dubrovnik-Neretva	788071	1.43	547414	69.46	197965	25.12	42692	5.42
County of Međimurje	611505	1.11	305626	49.98	276240	45.17	29639	4.85
City of Zagreb	35303213	64.24	19248977	54.52	13096538	37.10	2957698	8.38
Republic of Croatia	54955372	100.00	29123344	52.99	21480040	39.09	4351988	7.92

Source: Statistički ljetopis Republike Hrvatske 2005., p. 682.

The data on gross fixed capital formation in fixed assets show even more clearly the disproportion between Croatian regions. In the year 2003, investors with headquarters in the City of Zagreb accounted for as much as 64.24% of all investments in fixed assets in the Republic of Croatia. It follows that investors headquartered in the City of Zagreb have infinitely bigger financial and credit possibilities in comparison to investors from other parts of Croatia. The investors from the area of the City of Zagreb invested 54.52% into construction works, and into equipment 37.1% of total assets. A significant share of approximately 5% of total investments in fixed assets in the Republic of Croatia was made by investors in County of Primorje-Gorski kotar and County of Split-Dalmatia. Investors from the remaining 18 counties together accounted for only 30.52% of total investments in fixed assets. Thus, for example, investors headquartered in the counties in Slavonia and Baranja had a share in total investments in fixed assets of less than 5%. Taking the Republic of Croatia as a whole, investments in construction works are predominant, however, in a few counties there was more investment in equipment.

In the analysis of investments it is of utmost importance to consider what amounts are invested in particular Croatian regions. Table 6, therefore, lists the data on gross fixed capital formation in new fixed assets by type of construction and location of objects in 2003.

Table 6. Gross fixed capital formation in new fixed assets by type of construction and location of objects in 2003

County	Value of gross fixed capital formation (thousand HRK)	Share (%)	Gross fixed capital formation in new fixed assets					
			Type of construction					
			New capacities		Expansion, reconstruction and renovation		Maintenance of existing capacities	
			Amount (thousand HRK)	Share in value of gross fixed capital formation (%)	Amount (thousand HRK)	Share in value of gross fixed capital formation (%)	Amount (thousand HRK)	Share in value of gross fixed capital formation (%)
County of Zagreb	1558340	3.18	980672	62.93	445911	28.61	131757	8.45
County of Krapina-Zagorje	857696	1.75	514574	59.99	264639	30.85	78483	9.15
County of Sisak-Moslavina	1237728	2.53	656653	53.05	471397	38.09	109678	8.86
County of Karlovac	1314396	2.69	943395	71.77	247225	18.81	123776	9.42
County of Varaždin	1980152	4.05	1332348	67.29	523530	26.44	124274	6.28
County of Koprivnica-Križevci	944447	1.93	463860	49.11	412125	43.64	68462	7.25
County of Bjelovar-Bilogora	661838	1.35	408003	61.65	200378	30.28	53457	8.08
County of Primorje-Gorski kotar	4340207	8.87	2298512	52.96	1636521	37.71	405174	9.34
County of Lika-Senj	3409132	6.96	3174366	93.11	185935	5.45	48831	1.43
County of Virovitica-Podravina	344430	0.70	121535	35.29	149085	43.28	73810	21.43
County of Požega-Slavonia	509027	1.04	296957	58.34	158566	31.15	53504	10.51
County of Slavonski Brod-Posavina	824010	1.68	474803	57.62	303267	36.80	45940	5.58
County of Zadar	1513027	3.09	814562	53.84	509696	33.69	188769	12.48
County of Osijek-Baranja	2232964	4.56	1080469	48.39	949978	42.54	202517	9.07
County of Šibenik-Knin	1034248	2.11	574342	55.53	400409	38.71	59497	5.75
County of Vukovar-Sirmium	1425671	2.91	857341	60.14	505905	35.49	62425	4.38
County of Split-Dalmatia	5422224	11.08	3826184	70.56	1246051	22.98	349989	6.45
County of Istria	2176619	4.45	988418	45.41	902904	41.48	285297	13.11
County of Dubrovnik-Neretva	1080228	2.21	461014	42.68	526102	48.70	93112	8.62
County of Međimurje	630345	1.29	326599	51.81	232488	36.88	71258	11.30
City of Zagreb	14985801	30.62	7097952	47.36	6720546	44.85	1167303	7.79
Not classified	466635	0.95	290569	62.27	176066	37.73	-	-
Republic of Croatia	48949165	100.00	27983128	57.17	17168724	35.07	3797313	7.76

Source: Statistički ljetopis Republike Hrvatske 2005., p. 683.

The City of Zagreb, which accounts for 30.62% of gross fixed capital formation in fixed assets in the Republic of Croatia during 2003, is at the forefront in building new capacities, expansion, reconstruction and renovation, as well as maintenance of existing capacities. In terms of investments, the City of Zagreb is followed by County of Split-Dalmatia, County of Primorje-Gorski kotar and County of Lika-Senj. Only in the City of Zagreb and these three counties were the shares of gross fixed capital formation in fixed assets higher than the percentage of population living in them. None of the other counties realized gross fixed capital formation in fixed assets higher than 5% of the total value realized in the country as a whole in 2003. Given that initiating investment cycles is one of the fundamental preconditions for economic recovery of underdeveloped regions, the presented data lead to the conclusion that the gap between the few developed Croatian regions and economically underdeveloped areas is actually widening. These trends are proof that the economic policy measures taken to stimulate the recovery of underdeveloped regions are not producing adequate results.

In addition to the total amount of gross wages and salaries in industry paid in 2003 in the Republic of Croatia and its counties, Table 7 shows also the average gross wages and salaries per person employed.

Table 7. Total and average gross wages and salaries per person employed in industry in the Republic of Croatia in 2003

County	Gross wages and salaries			
	Total (thousand HRK)	*Share (%)*	*Average per person employed (HRK)*	*Average per person employed (Republic of Croatia = 100)*
County of Zagreb	677117	3.78	58579	86.17
County of Krapina-Zagorje	450986	2.52	48951	72.00
County of Sisak-Moslavina	578360	3.23	59773	87.92
County of Karlovac	484478	2.71	60258	88.64
County of Varaždin	853462	4.77	46091	67.80
County of Koprivnica-Križevci	853696	4.77	71129	104.63
County of Bjelovar-Bilogora	353988	1.98	47541	69.93
County of Primorje-Gorski kotar	967488	5.41	61268	90.12
County of Lika-Senj	55948	0.31	44902	66.05
County of Virovitica-Podravina	249403	1.39	46504	68.41
County of Požega-Slavonia	216315	1.21	47005	69.14
County of Slavonski Brod-Posavina	370925	2.07	53494	78.69
County of Zadar	238563	1.33	62599	92.08
County of Osijek-Baranja	788341	4.41	55086	81.03
County of Šibenik-Knin	231867	1.30	51687	76.03
County of Vukovar-Sirmium	223717	1.25	50661	74.52
County of Split-Dalmatia	1281865	7.16	65851	96.86
County of Istria	941173	5.26	80284	118.09
County of Dubrovnik-Neretva	115262	0.64	51433	75.66
County of Međimurje	554231	3.10	49151	72.30
City of Zagreb	7404348	41.38	91347	134.37
Republic of Croatia	17891533	100.00	67983	100.00

Source: Statistički ljetopis Republike Hrvatske 2005., p. 700.

Total gross wages and salaries paid in industry in the City of Zagreb accounted for 41.38% of all gross wages and salaries paid in 2003 in the sector of industry in the Republic of Croatia. In 2003, more than 5% of total gross wages and salaries were realized in only three more counties: County of Split-Dalmatia, County of Primorje-Gorski kotar and County of Istria. In the same year, wages and salaries of industrial employees in the City of Zagreb were 34.37% higher than the Croatian average. Apart from the City of Zagreb, industrial workers employed in County of Istria and County Koprivnica-Križevci were the only ones who received gross wages and salaries higher than the national average. The lowest gross wages and salaries in the analyzed year were received by industrial employees in County of Lika-Senj. However, this county accounted for only 0.31% of total gross wages and salaries paid that year in the Republic of Croatia. In other words, the workers employed in the City of Zagreb received 2.03 times higher salaries than industrial employees in County of Lika-Senj in 2003.

For the purposes of present analysis, we furthermore used the available statistics as a source of data on exports and imports of the Republic of Croatia and its counties in 2004 (Table 8).

Table 8. Values of exports and imports in the Republic of Croatia and its counties in 2004, with the relevant structure and export/import ratio

County	Exports (thousand HRK)	Exports, share (%)	Imports (thousand HRK)	Imports, share (%)	Export/import ratio (%)
County of Zagreb	1101721	2.28	6691235	6.69	16.47
County of Krapina-Zagorje	1528060	3.16	1560479	1.56	97.92
County of Sisak-Moslavina	3392311	7.01	3000693	3.00	113.05
County of Karlovac	1282449	2.65	1012220	1.01	126.70
County of Varaždin	3154709	6.52	3782907	3.78	83.39
County of Koprivnica-Križevci	1073180	2.22	1126347	1.13	95.28
County of Bjelovar-Bilogora	489694	1.01	828717	0.83	59.09
County of Primorje-Gorski kotar	2399468	4.96	4460318	4.46	53.80
County of Lika-Senj	37091	0.08	57036	0.06	65.03
County of Virovitica-Podravina	562248	1.16	379044	0.38	148.33
County of Požega-Slavonia	509545	1.05	406671	0.41	125.30
County of Slavonski Brod-Posavina	507803	1.05	701817	0.70	72.36
County of Zadar	834102	1.72	1069304	1.07	78.00
County of Osijek-Baranja	2698795	5.58	2023807	2.02	133.35
County of Šibenik-Knin	752006	1.55	980046	0.98	76.73
County of Vukovar-Sirmium	390615	0.81	657508	0.66	59.41
County of Split-Dalmatia	4101900	8.48	6019993	6.02	68.14
County of Istria	5540072	11.46	5644584	5.64	98.15
County of Dubrovnik-Neretva	112152	0.23	523208	0.52	21.44
County of Međimurje	1294780	2.68	1651054	1.65	78.42
City of Zagreb	15986453	33.06	55056918	55.05	29.04
Not classified	613798	1.27	2374200	2.37	25.85
Republic of Croatia	48362953	100.00	100008106	100.00	48.36

Source: Statistički ljetopis Republike Hrvatske 2005., p. 712.

One of the biggest problems of Croatian economy is the negative foreign trade balance. In the year 2004, the coverage of imports by exports amounted to only 48.36%, i.e. the value of imports was 2.07 as high as the value of exports. Almost one third of Croatian exports are generated by the City of Zagreb. At the same time, in 2004 the value of imports realized by the City of Zagreb accounted for 55.05% of total imports in the Republic of Croatia. Therefore, the coverage of imports by exports in the City of Zagreb amounted to meagre 29.04%. It should be noted, however, that the sources we consulted do not differentiate the portion of imports of the City of Zagreb spent in this administrative-territorial unit from the portion marketed in other parts of Croatia. Only County of Zagreb and County of Dubrovnik-Neretva had a worse export/import ratio in 2004 than the City of Zagreb. The best export/import ratio was achieved in County of Virovitica-Podravina. A positive foreign trade balance in 2004 was achieved in only four more counties: County of Osijek-Baranja, County of Karlovac, County of Požega-Slavonia and County of Sisak-Moslavina. These data indicate that less developed counties are managing to sell their products and services in foreign markets. The growth of exports can help their economic recovery, but for this, they first need to raise their competitiveness.

4. POSSIBLE GUIDELINES FOR ECONOMIC AND SOCIAL POLICIES AIMED AT MITIGATING UNEQUAL REGIONAL DEVELOPMENT

The Republic of Croatia is characterized by considerable differences in the development of its regions. Acknowledging the numerous factors contributing to this situation, which could for the most part not be influenced, it can still be asserted that the unequal development of

Croatian regions is mostly the consequence of misjudgements of policy-makers. One of the biggest failures is probably the delay in adopting adequate development strategies for the Republic of Croatia and its counties. Taking into account the international environment and contemporary economic trends, as well as our efforts to become a full member of the EU, it is necessary to establish which economic activities and in which regions exhibit best our competitive advantages. In this respect, it seems logical for the development of the Republic of Croatia to be founded on knowledge and lifelong learning, tourism and entertainment, organic food, exploitation of certain natural resources and preserved environment. Less promising activities should not be neglected in the process, however, their development should be designed to assist the development of those activities judged to be the biggest contributors to economic progress.

Once the main strategies have been defined, the state and regional governments need to direct and coordinate all the activities required for achieving the defined goals. The measures at their disposal can have a general or regional, i.e. local character. Both types of measures can be further classified into groups, which will be briefly discussed below.

One group of measures has to be aimed at promoting the importance of knowledge and education, and at improving the education system, especially in underdeveloped parts of the Republic of Croatia. To achieve this, it is necessary to increase the allocation of funds for these purposes very quickly, and to upgrade the cooperation between education and business sector. These efforts should include continued homogenization of educational standard. Given that small economies (Croatian being one of those) are forced to base their prosperity on knowledge, it is of utmost importance that the current drive for disburdening of pupils does not have negative effects on our future development. Prolongation of compulsory education to secondary school and encouraging people to continue their education at universities should be the main point of this strategy. Furthermore, it would be necessary to stimulate the interest for jobs in short supply by different methods, including scholarships. This would be a way to safeguard the required skills in our workforce, as this is frequently a limitation for investments in certain Croatian regions.

State, county and local institutions have to provide the prerequisites for economic development. Establishment of entrepreneurial zones, road construction and infrastructure, water supply, sewage system, gas and power supply wherever required, are only a few of such activities. In addition, it would be advisable to shorten and simplify the process of founding and running businesses. This, however, should not be accompanied by increased bureaucratic apparatus. The process must be preceded by adjustments of legislation and creation of safe legal environment for domestic and foreign investors. The present system of stimulating the development of underdeveloped regions has not yielded satisfactory results and thus needs to be revised. In this respect, we need to analyze in detail the effects of the measures taken so far, and, where necessary, to further reduce taxes, improve the company incentive system, expand the network of advisory services, improve credit supply, stimulate housing construction etc.

The funds required for implementing the activities listed above can be raised in different ways, including rationalizations in state, county and local administration. These institutions should employ educated personnel, willing and able to fulfil their responsibilities, but also to sanction the individuals abusing their office. Considerable financial resources could be saved by reducing the excessive number of counties and municipalities in the Republic of Croatia, the number which has no economic justification. Prior to becoming an independent state,

Croatia used to have 102 municipalities. On 31 December 2004, the Republic of Croatia had 426 municipalities, most of which are unable to provide funds for any major development projects and improvement of living standards of their inhabitants. Regionalism would certainly advance more smoothly with less fragmented administrative-territorial units, whose purpose is not only to provide permanent employment for locally elected officials and staffers.

One of the important tasks facing Croatian institutions is building up an appropriate image of the country and its regions in the world. Marketing activities carried out with this aim have so far been far from sufficient. In evaluating this aspect of image building, we must not be misled by our subjective perception of own significance.

A special group of measures, acknowledged by the present government, refers to the introduction of information technology into every segment of Croatian society. Although considerable steps forward have been made in this area in the past few years, the gap between Croatia and the developed EU members has not been decreased to a satisfactory degree. The differences between particular regions in Croatia and particular groups of society are even more pronounced.

Social welfare measures should provide better care of socially handicapped groups at all levels, especially people living below the poverty line. In health care domain, all the citizens of the Republic of Croatia should have access to basic health care regardless of their place of residence. At the same time, the whole health care system needs to be rationalized. One of the ways to do this is to reduce the number of superfluous tests; one frequently gets the impression that their only purpose is to secure livelihood for certain hospitals or wards. These activities will have to include determining the optimum number of health care institutions capable of functioning in a certain region.

Measures and activities listed above are not likely to produce satisfactory results unless all the segments of Croatian society make additional efforts to increase efficiency, effectiveness and flexibility. At the same time, the importance of regionalism should be stressed and promoted at all levels. Further decentralization of power is just one of the ways in which Croatian regions can strengthen their position. Still, they must not shut themselves within their borders; rather, they have to intensify cooperation with other regions in the Republic of Croatia and neighbouring countries, as this is a prerequisite for their further development.

5. AN INTEGRAL DATABASE MODEL

Objective insights into the problems of regional development in the Republic of Croatia are hindered by the insufficiency of data required for a proper analysis. Most economic and social indicators presented by different government and non-governmental institutions refer to the overall state level. In addition, most data are presented with a considerable time lapse between the period being analyzed and the time when the information becomes generally available. It is not rare for different reports to contain incompatible data. Another difficulty is the lack of connection between particular databases, which slows down the research process even further. Although the stated problems are partly caused by poor organisation of the existing information system, it is obvious that inadequate modelling of current databases has significantly contributed to the problem. To be able to improve the research of regional

development, it is crucial to assemble an integral database which would incorporate all the relevant economic and social indicators referring to the development of Croatian counties.

A data model is a basis for shaping a database, developing a system of its management and analysis of its features. It is customary to differentiate between flat file, hierarchical, network, and relational models, however, only the relational model has wide application value in today's world. A database model is represented by the relations existing between entities in the database.

As a constituent element of an information system, a database is an organized set of interrelated and structured information stored on a medium. The database concept usually includes the system implemented for managing such a base as well.

Figure 1 is a simplified illustration of the connections between a data model, a database model and a database. The first two are model levels, and are a prerequisite for creating a database.
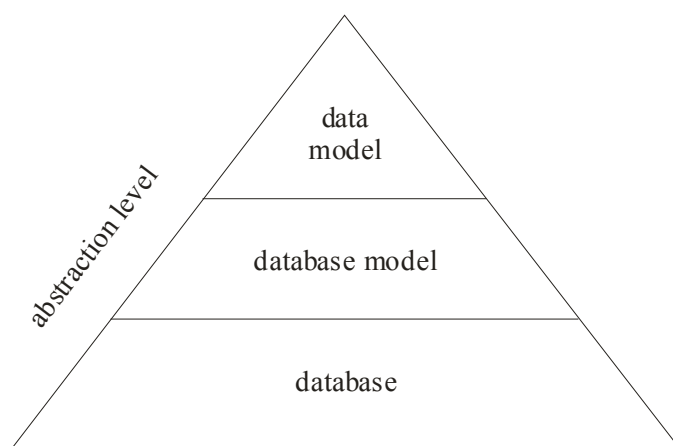
Figure 1. From theory to a concrete database

Level of integration and consistency of data, minimum redundancy, flexibility, stability with regard to new applications being used, as well as security and availability of data are all the requirements that a chosen model has to meet. The task in modelling a database is to establish the best possible analogy with a particular real world segment, while eliminating different kinds of anomalies that can occur when reorganizing the database.

A relational scheme, presented below as a simple example of modelling a relational database, contains four entities: county, gross domestic product, gross domestic product per inhabitant and unemployment rate. It should be noted that entity attributes are given in brackets, whereas the primary key is marked by underlining the attributes which constitute the primary key. The model shown here contains also an external key. If there are any restrictions, they can be given as the last element in braces.

COUNTY (<u>COUNTY CODE</u>, NAME_OF_COUNTY)

GROSS_DOMESTIC_PRODUCT (<u>COUNTY CODE</u>, QUARTERLY_ACCOUNT, ANNUAL_AMOUNT, RATES_OF_CHANGE, INHABITANT)

GROSS_DOMESTIC_PRODUCT_PER_INHABITANT (<u>INHABITANT</u>, ANNUAL_AMOUNT_PER_INHABITANT, RATES_OF_CHANGE)

UNEMPLOYMENT (<u>COUNTY CODE</u>, NUMBER_OF_UNEMPLOYED, PERCENTAGE_OF_UNEMPLOYED, RATES_OF_CHANGE)

If the model is expanded by a number of other entities, defined as particular economic and social indicators, the relational model will become increasingly complex. Nevertheless, an appropriate choice of primary and external keys and adequate tools will make the usage of such a database quite simple.

Efficient implementation of the proposed model would require an adjustment of the current methodology, i.e. it would be necessary to change the way that data are presently collected, recorded, classified, analyzed, organized and presented. All this would have to be preceded by establishing correctly the information needs of potential users of the information system aimed at monitoring the regional development in the Republic of Croatia. In addition, a detailed analysis of the structure and functioning of the existing information system should be carried out in order to determine how far it is suited for implementing the proposed model.

Eventually, the integrated database model proposed here would have to make available a greater number of indicators referring to the regional level and thus improve the process of analysis and decision-making. Some indicators would indeed require additional research, but the values of some economic and social indicators which are currently recorded only at the national level could be easily deduced for lower levels by introducing the proposed model, accompanied by some additional processing. It is important to note that certain improvements in using the current information system are achievable with relatively small investments. One example is the unstructured data provided in the form of reports by many government institutions. The Central Bureau of Statistics presents such data in PDF format, which makes them less flexible for conducting statistical analyses. In contrast, the Croatian National Bank provides data as Microsoft Office Excel files, which are very easily copied into any statistical programme application, such as SPSS or STATISTICA. Although this makes the data more accessible, the basic problem of their insufficiency and inadequacy remains. This problem will be resolved only if the database model described above is fully implemented, followed by an adequate information system which takes into account the needs of different types of users.

6. CONCLUSION

The analysis of the chosen indicators has revealed that particular regions in Croatia vary greatly in their development in terms of established average values of the indicators. Such disparities are reflected in the slower development of the country as a whole. In the time preceding Croatia's accession to the European Union more intensive efforts should be made to decrease these differences. The EU pre-accession funds and the experience of member states can certainly facilitate these processes.

One of the basic preconditions for the development of the Republic of Croatia and its regions is formulating coherent development strategies. Such strategies would enable the counties to focus their activities more easily and thus accelerate economic growth. The authorities also need to improve the methodology and techniques of data collection referring to these issues in order to monitor properly the dynamics of regional development. In this context, the number of indicators recorded and monitored at regional level should be increased. Creating an integral database, whose model is presented in the paper, is a key step in this process.

The paper has discussed only a few of the possible guidelines for economic and social policies aimed at mitigating the disparities present in regional development in the Republic of Croatia. The issue of uneven regional development will undoubtedly have to receive much more detailed attention in the foreseeable future.

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TRUSTING CHAMPIONS
HOW TRUST BASED INTER-FIRM COOPERATION BOOSTS FIRM PERFORMANCE

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1. INTRODUCTION

Against the background of the rapid economic development and the henceforth proceeding integration into the European Single Market, the Middle and Eastern European Countries will be able to take positions of importance within the European economic structure in the future. Austria will profit from its close ties with these strong partners. However, for that the interconnectedness of both, the metropolitan areas and the single economic units have to be pressed ahead. A promising strategy for simultaneously networking metropolitan areas and single economic units is the inter-firm cooperation. At the same time, it is essential to point out the complex problem situations, which cooperative strategies bring about for the participants. (Dwayer/Schurr/Oh 1987; Backhaus, 1992; Eberl,2004) In order to make inter-firm cooperation an attractive strategic option for the economic actors its functional interdependencies and its risks but also its special capacities have to be analyzed in depth.

The question of how to coordinate the activities of independent actors in a reasonable manner arose long before the discovery of interfirm cooperation as a field of research. However, many aspects of this problem have been neglected, and many issues still remain unresolved to date. (Bigley/Pearce, 1998; Browning/Beyer/Shetler, 1995; Gambetta, 1988; Smith/Carroll/

Ashford 1995) Academic efforts in cooperation research have generated, among other findings, the thesis that companies which cooperate successfully are able to realize competitive advantages. Business cooperation is considered a decisive factor in (self-)assertion amid steadily increasing competition. The success of an cooperative strategy is highly dependent on the nature of the cooperation and on how effectively and efficiently the coordination needs are satisfied in the business cooperation arrangement. (Roessl, 1994; Fink, 2005).

In society, trust constitutes an effective mechanism for the coordination of social relationships due to its standardizing effect on behavior. (Friedell, 1983, p. 108) However, it is questionable whether this general coordination mechanism has the same effect on those areas of society in which coordination has been attributed to market mechanisms and hierarchical structures (and hybrid forms) up to now. Thus it only seems plausible that the existing lack of explanations in coordination theory1 (or in practical economic transaction relationships) is offset by everyday norm-based behavioral adjustment. When treated in the context of classical business administration the coordinative power of the market and hierarchy are not sufficient to explain many transaction relationships in actual business practice. According to Roessl (1994) (similar Osterloh/Weibel, 2000), this is especially true for those transaction relationships "for which neither the market mechanism nor hierarchical organization […] represents suitable coordination mechanisms. Such transactions are highly uncertain and complex and intend to produce long-term profits. Thus, a hierarchical determination of behavior would not be adequate in view of the uncertainty involved: On the one hand reliable coordination by the market mechanism is opposed by the long-term aspect, and on the other hand the insufficient programmability (controllability) of the relationship does not permit any hierarchical coordination." (Roessl, 1996, p. 11)

Although simultaneous market and organizational failure as well as a failure of all hybrid forms should lead to avoidance of such transactions, they do take place in reality. (Fink, 2005) In this article, the authors provide a number of important steppingstones for cooperation theory: Firstly, trust based self-commitment is presented as a successful strategy for the integration of economic units. Secondly, the authors fill the vacuum in coordination theory by modeling the functionality and the success of the coordinative power of norm-based trust in the context of long-term, highly complex and uncertain interfirm cooperation relationships (Organic Cooperation = OrCo).2 Thirdly, by testing the proposed model empirically on the basis of a comprehensive survey of SME managers empirical cooperation research is significantly pressed ahead.

The article is structured as follows: The first half focuses on developing a theoretical argument, which is examined empirically in the second half of the paper. Based on deficits in the coordinative power of the "classical coordination mechanisms": market and hierarchy as well as all hybrid forms, trust based self-commitment is presented as an alternative third ideal-type coordination mechanism (Chapter 2). This coordination mechanism is then thoroughly analyzed and elaborated upon (Chapter 3). Subsequently we develop a differentiated meaning of the term "trust" (Section 3.1.) and analyze the genesis and functionality of norm-based trust relationships (Section 3.2.). We then discuss the decisive

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1 *Semlinger* (1993) identifies a lack of explanation concerning transaction relationships in situations of simultaneous market and organizational failure, and regards the flexible and simultaneously reliable coordination mechanism as a solution for "the vicious circle of transaction theory".

2 The term OrCo goes hand in hand with the term "synergy system" [*Roessl* (1994) also *Fink* (2005)]. Another similar term is "dynamic networks" [*Miles/Snow* (1986)].

role of these relationships as a effective and efficient strategy for overcoming double contingency and therefore as a key factor for enabling long-term, complex cooperation relationships (Section 3.3.). Subsequently, we generate an empirically workable hypothesis (Section 4.1.) and present the definition of variables (Section 4.2.) and modeling (Section 4.3.). This is followed by a description of the empirical study, a discussion of the quality of the findings, and a comparison of the findings with our working hypothesis. The paper closes with a summary (Chapter 5.).

2. THEORETICAL BACKGROUND

2.1. The coordination Capacity of the Market Mechanism and Hierarchical Governance

The advantage of a cooperative strategy arises from the functioning coordination of the partners' behavior. Only if each participant in a cooperation arrangement forgoes short-term opportunism and advantages in favor of common long-term objectives can the cooperation be successful and create competitive advantages for each participating enterprise. (Pleitner/Roessl, 1995, p. 672) Those who cooperate therefore make themselves and their success dependent on the behavior of the cooperation partner. (Wurche 1991, p. 147; 1994, p. 149) In order to ensure its own benefit, the cooperating enterprise has to make sure that its partner will act in accordance with the cooperation agreement (i.e., in a cooperative manner). (Spremann 1990, p. 576) This combination of dependence and uncertainty as to the partner's behavior (the principal/agent problem) makes it possible for the cooperation partners to act on their own behalf and to pursue short-term interests (instead of pursuing common long-term interests) without being subject to sanctions. The option of behaving unfairly and not exhibiting the expected behavior creates latitude for opportunistic behavior for each cooperation partner. (Muris, 1981, p. 521; John, 1984, p. 288; Provan/Skinner, 1989, p. 203; Hauser, 1991, p. 112; Poppo, 1991, p. 20; Dahlstrohm/Boyle, 1994, p. 53; Noorderhaven, 1995, p. 8; Gassenheimer/Baucus/Baucus, 1996, p. 68; Wathne/Heide, 2000) Two factors affect the latitude toward opportunistic behavior: On the one hand, it is proportional to the numbers of the actor's opportunities for opportunistic behavior. On the other hand, the uncertainty as to the partner's behavior stems from his inclination to behave opportunistically, which determines the probability that the existing opportunities for opportunistic behavior will be exploited.

There are three basic possible means of overcoming the uncertainty as to the actual future behavior of the cooperation partner: (1) spontaneous behavioral governance on the basis of the market mechanism, (e.g. Hayek, 1971) (2) hierarchical or mechanistic governance on the basis of regulation and sanctions (e.g. Williamson, 1991), and (3) heterarchical or organic governance on the basis of the actors' self-commitment and mutual trust. (Osterloh/Weibel, 2000; Roessl, 1994; Fink, 2005)

The coordination capacity of the market mechanism originates from the self-organization of suppliers and demanders who strive to realize their own interests as quickly as possible. Therefore, the market mechanism, which is based on the pursuit of short-term advantages cannot be the dominant coordination mechanism in a long-term transaction relationship (e.g., OrCo). (Ouchi, 1979) As in any transaction relationship, each cooperation arrangement includes a competitive element based on the market mechanism, as expressed by the buzzword "coopetition". (Brandenburger, 1998)

The norm-based behavioral determination arising from a reduction of the latitude for opportunistic behavior (Muris, 1981, p. 521; John, 1984, p. 288; Provan/Skinner, 1989, p. 203; Hauser, 1991, p. 112; Dahlstrohm/Boyle, 1994, p. 53; Noorderhaven, 1995, p. 8; Gassenheimer/Baucus/Baucus, 1996, p. 68; Wathne/Heide, 2000) in hierarchical governance is equally limited. In order to be able to communicate credible and therefore threatening sanctions to the cooperation partners, (Buckley/Casson, 1988, p. 36) several prerequisites have to be fulfilled: First, the desired behavior of the cooperation partner – and its consequences – have to be known ex ante, (Eberl, 2004, p. 267) and this behavior has to be identifiable ex post (Spremann, 1988, p. 615f; Dwyer/Schurr/Oh, 1987, p. 13; Backhaus, 1992, p. 784; Gierl, 2001, p. 59) (contingent claim contracts [Heide/John, 1988, p. 22; Heide/John, 1992, p. 35]). However, this requirement often cannot be met or seems undesirable (Kaas, 1992a, p. 886ff; Kaas, 1992b, p. 49) (e.g., R&D cooperation: (Wildemann, 1992) undefined objectives, loss of flexibility, destruction of self-adjustment potential). Second, it has to be possible to monitor the cooperation partner's behavior consistently ("the vitreous interaction partner"). Finally, the actor has to dispose of sufficient sanctioning power over his cooperation partners (pledge). (Emerson, 1962; Cook/Emerson, 1978; Engel, 1999, p. 8; Heide/John, 1988; Schrader, 1993, p. 247; Backhaus, 1992, p. 787) It has been shown that, as a dominant coordination mechanism, hierarchical governance is limited especially in those areas of interfirm cooperation where the objectives cannot be programmed at all or only at prohibitively high transaction costs. (Ring/Van de Ven, 1992; Ripperger, 1998, p. 49)

Due to an awareness of the deficits in market mechanism and hierarchical governance as well as its hybrid forms, cooperation research has proposed an alternative coordination mechanism which is particularly well-suited as a coordination mechanism in situations where both – market mechanism and hierarchical governance – tend to fail (i.e., simultaneous market and organizational failure). This coordination mechanism is referred to as "trust," (Eberl, 2004) "self-commitment" (Frey/Osterloh, 2002) or "self-extradition on the basis of mutual trust." (*Fink/Roessl,* 2004) Those cooperation arrangements which are predominantly based on this mechanism are labeled as "organic cooperation" (OrCo).

2.2. The Coordination Effect of Self-Commitment

In cooperation relationships that are coordinated by self-commitment on the part of the actors, there are no regulations or sanctions restricting the actors' freedom of action. At any given time, each of them has the option of sacrificing the common long-term goal in order to skim short-term profits (defectionist behavior), thus damaging the cooperation and the cooperation partners. (Wurche, 1991, p. 147; 1994, p. 149) The latitude for opportunistic behavior is still maintained. However, it is rather the actors' mutual commitment to chosen cooperative strategy that impedes defectionist behavior and consequently restrains the inclination toward opportunistic behavior (Nooteboom/Berger/Noorderhaven, 1997, p. 310) ("bounded rationality" [Selten, 2002]).

At first glance, such self-imposed restrictions (self-commitment) may seem unrealistic. However, self-commitment proves to be the only way to establish and to sustain transaction relationships in which even market and hierarchical governance tend to fail. (Roessl, 1994; Fink, 2005; Eberl, 2004) In this respect, mutual behavioral uncertainty (Williamson 1993; Luhmann, 1989, p. 45) (double contingency, e.g., the prisoner's dilemma) can only be overcome if the actors expect cooperative behavior from each other and behave cooperatively

themselves. "The most reliable way to make people decent is to take them for decent." (Friedell, 1983, p. 108)

However, this formed expectation of behavior (trust) (Ripperger, 1998, 34ff.) can only be justified if all cooperation partners commit to a cooperative strategy by committing to long-term advantages and plausibly communicating their announced self-commitment to one other. The communication of self-commitment only succeeds if the actor joins a cooperation relationship without aiming to establish monitoring or sanction mechanisms. (Wiegand, 1994, p. 183) On the basis of self-extradition, the actor communicates self-commitment (i.e., an exogenous effect) (Ripperger 1998, p. 45), thus creating norms for his behavior (i.e., an endogenous effect). (Sandner, 1990, p. 133; Luhmann 1989, p. 46) As a result, the actors' self-commitment fosters their coordination efforts and facilitates cooperation relationships, which would otherwise not exist. However, coordination by way of self-commitment does not decrease the actors' latitude for opportunistic behavior, which still allows (undetected) defectionist behavior

3. ON SELF-COMMITMENT AS A COORDINATION MECHANISM

3.1. Norm-Based and Instrumental Trust

In order to work with the term "trust," in more depth we first need to find a narrowly specified and viable definition. Generally speaking, trust is the response of an actor (an individual, not an organization) (Gulati, 1995) to uncertainty in his or her environment. In order to avoid despair due to ubiquitous uncertainty in everyday life, the actors employ a psychological trick: They form expectations regarding the occurrence of contingent events and thus compensates for his information deficits. (Rotter, 1971, p. 443) By neglecting the fact that a frustration of their expectations always remains possible in principle, the actors succeed in replacing the missing information with expectations, thus relieving them of the stress of uncertainty.

- **Delimiting "trust" from "confidence"**
  According to Ripperger, (Ripperger, 1998, 34ff) we can identify two modes of this process, which differ in the extent to which the actor is aware of the range of possible events and to which he actively reflects on his assumptions. (Coleman, 1990, p. 91; 1992, p. 105; Kaufmann, 1987) If the assumptions are made ad hoc, then the actor is not aware of the uncertainty involved; this reaction to objective uncertainty (fortuity) is referred to as confidence. However, trust requires the actor to take a risk. (Luhmann, 1989, p. 45). If the actor has multiple alternative paths of action, (Luhmann, 1989, p. 45) the consequences of which are dependent on the uncertain behavior of other actors (subjective uncertainty), the risk of error arises. (Ben-Ner/Puttermann, 2001; Bohnet/Zeckhauser, 2004; Davis/Mayer/Schoorman, 1995; Luhmann, 1988; Williamson, 1993) One possible reaction to subjective uncertainty is trust. (Eberl, 2004)

- **Delimiting "trust" from "hope"**
  Exogenous uncertainty exists if neither the actor nor his counterparts have influence on the probability with which contingent events occur. (Anfang/Urban, 1994, p. 6) The factors which give rise to this uncertainty are located outside the interaction system. (Plötner, 1995, p. 21) The reaction to such exogenous uncertainties can only be hope. However, if the actor is uncertain of his interaction partner's decisions and

their consequences, we speak of endogenous uncertainty which can be counteracted by trust. (Friedland, 1990)

- **Delimiting "trust" from "reliance"**
  Whether or not an interaction partner meets the expectations of the trustor depends on two factors: The ability and the willingness of the partner to do so. (Davis/Mayer/Schoorman, 1995)
  Neither factor can be controlled by an actor of limited rationality, thus they are characterized by uncertainty. (Fairholm, 1994, p. 112) If the actor thinks that his interaction partner will be able to fulfill the expectations demanded of him, we speak of "reliance." (Barber, 1983, p. 14f) Whereas reliance refers to competence-related uncertainty, trust is a reaction to uncertainty (Alchian/Demsetz 1972) regarding the interaction partner's willingness to behave in compliance with the actor's expectations.

Trust can therefore be defined as the reaction of an actor to subjective uncertainty regarding the interaction partner's behavior.

The question of the motivation or justification behind trust sheds light on another important distinction. (Osterloh/Weiberl, 2000, p. 103) Analogue to Kant's distinction between morality and legality, it is possible to differentiate between instrumental trust and norm-based trust among cooperating parties: Instrumental trust refers to the exogenous conformity of the cooperation partner's behavior with the cooperating norms. In the case of norm-based trust, the motivational basis on which the interaction partners behave is trust per se. (Eberl, 2004; Burt/Camerer/Rousseau/Sitkin, 1998; McAllister, 1995; Chen/Saparito/Sapienza, 2004) Whereas instrumental trust serves as a selectable means of ensuring behavioral certainty in a given situation (rather than creating a confidence relationship), norm-based trust is not sensitive to situation-specific circumstances. However, even if it may have a favorable effect in the end, norm-based trust can not be chosen actively as an alternative instrument to serve a certain purpose upfront (i.e., as a direct cause-and-effect relationship). (Luhmann, 1989, p. 97)

3.2. The Norm-Based Trust Relationship – Genesis and Functions

The point of departure for norm-based trust is the cooperation partner's trustworthiness, which depends on how strongly the partners feel committed to the trust-based relationship. In our understanding the factors which influence an actors judgment over his or her interaction partner's trustworthiness most, are individual and collective reputation, experience, perceived history and familiarity. (Fink, 2005, p. 102) Highly trustworthy interaction partners may induce the actor to realize acts of trust. Such acts demonstrate to interaction partners that one has rendered oneself unprotected due to the trust placed in them. (Roessl, 1994, p. 179; Wiegand, 1994, p. 183)

Acts of self-commitment are based on trust expectations, that is, the expectation that the interaction partner is reliable and will voluntarily refrain from behaving opportunistically. (Ripperger, 1998, p. 45) The act of trust is interpreted as an expression of the interaction partner's motivational structure and provides a basis for the actor's own trust expectations, thus enabling acts of trust on his part.

Credibly communicated self-commitment (i.e., trust expectations and trust actions) may lend Partner B enough trustworthiness to motivate Partner A to expect B to forgo opportunistic

behavior voluntarily in the future as well (A's trust expectation). On the basis of this trust expectation it is an attractive strategic option for A to render a risky advance performance (Gächter/Herrmann/Thöni, 2004; Davis/Mayer/Schoorman, 1995; Cook/Cooper, 2003, p. 217) (A's act of trust). A's act of trust strengthens B's that A is a trustworthy partner. The evolution of norm-based trust can therefore be described as a self-enforcing process. (Fink/Roessl, 2004; Fink, 2005) Based on these trust expectations, both sides perform acts of trust, which in turn both, enforce trust expectations and justify further acts of trust.

The process leads to a situation in which the cooperation partners mutually submit to each other, and by doing so they reduce their counterpart's inclination to behave opportunistically. This creates a norm-based trust relationship as a value per se, (Madhok, 1995; Nooteboom, 1996; Bohnet/Zeckhauser, 2004) which neither of the participants wishes to jeopardize. (Berger/Noorderhaven/Nooteboom, 1997, p. 310; quoting Murakami/Rohlen, 1992, p. 70) Although the latitude for opportunistic behavior still exists, restricting the participants' inclination to behave opportunistically reduces behavioral uncertainty, thus partly absorbing the complexity of the transaction relationship. (Fink, 2005; Osterloh/Weiberl, 2000; Roessl, 1994)

3.3. Self-Commitment: Overcoming Double Contingency

In principle, transaction partners have the possibility of defecting in each decision taken within an OrCo relationship. At first glance, the cooperation partners in an OrCo relationship find themselves exposed to seemingly insurmountable mutual uncertainty. They find themselves in a situation of double contingency, that is, "a situation in which the other can always behave differently than I expect him to, and [in which] he, just because he knows what I expect him to do, can go against my expectations." (Luhmann, 1984, p. 179) Due to the self-commitment of the transaction partners and on the basis of norm-based trust, the actor is able to reduce uncertainty concerning his transaction partner's behavior. Thus the absorption of the transaction partner's latitude to behave opportunistically provides a key to double contingency and prevents the development of social dilemmas such as the prisoner's dilemma from the outset. (Bierhoff, 1991, p. 23; Ostrom, 1990, p. 3ff) Furthermore, by absorbing complexity, the strategy of evolving of a norm-based trust relationship enables the development and maintenance of complex long-term transaction systems (e.g., OrCo relationships) that could not exist on the basis of instrumental trust. (Roessl, 1994; Fink/Roessl, 2004; Fink, 2005; Pruitt/Kimmel, 1977, p. 376; Yamagishi, 1986, p. 111)

4. EMPIRICAL STUDY

4.1 Development of a Working Hypothesis

So far, the strategy of self-commitment has only been presented as a third ideal-type coordination mechanism in theoretical argumentation; a four-part functional chain illustrates this mechanism:

- If self-commitment is a prerequisite in order for a norm-based trust relationship, and
- if the existence of a norm-based trust relationship is an prerequisite for overcoming double contingency, and

- if this in turn represents a necessary condition for establishing and maintaining transaction relationships which are intended to produce long-term profits and are highly uncertain and complex (e.g., OrCo relationships),
- then the self-commitment of the interacting partners serves as a critical factor in the success of such a transaction relationship and therefore has a decisive impact on the success of the participating enterprises.

In order to test this line of argumentation, we subjected it to empirical evaluation. For this purpose, we developed a research hypothesis in the form of a statement, which can be substantiated empirically: "Self-commitment has the ultimate consequence of improving the cooperation partners' profits."
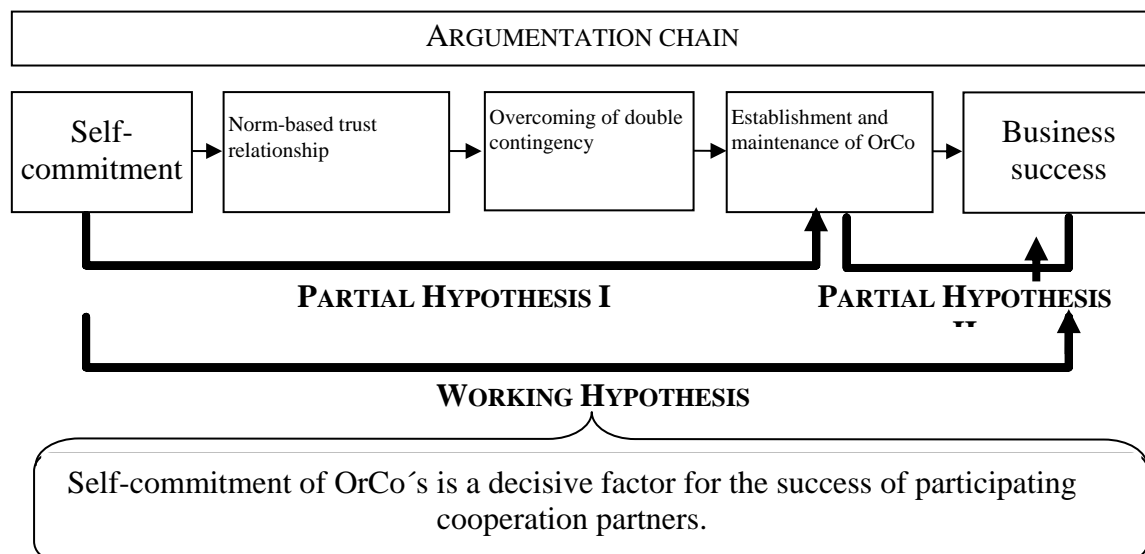
Figure 1: Aggregation of the argumentation chain to a structural model

The working hypothesis forms the starting point for our empirical investigation. The relevant (abstract) phenomena of (1) self-commitment, (2) OrCo and (3) success (the measurement model) as well as the functional chain based on the argumentation above (the structural model) are transformed into an empirically testable overall model in a multi-stage process of defining variables. This was used as a basis for developing a questionnaire, which includes all the actual characteristics of the relevant phenomena.

4.2 Defining Variables

Within the framework of the empirical investigation, the definition of variables is strongly challenged not only by the explanatory variable "self-commitment" (with the typical problems associated with measuring attitudes) but also by the construction of the category variable "OrCo" and the dependent variable "success." In order to cope with this challenge, the variables were gradually made measurable: They were first split into different perspectives, which were in turn divided into multiple dimensions, upon which measurement variables could be derived. We then composed questionnaire items for each variable.

4.3 The Model

The overall model consists of three measurement models, each of which makes one variable measurable. For the sake of compact presentation, we have to forgo the detailed presentation of each measurement model and the derivation of each measurement variable: *(Fink* 2005) However, to insure transparency we depict all dimensions used to measure the latent variables in Figure 4. The measurement model for the variable "self-commitment" represents an aggregation of Roessl's theoretical conception. (*Roessl,* 1994; 1996; *Fink,* 2005)

The measurement model for the variable "OrCo" is based on its delimination from other forms of interfirm cooperation based on the coordination (hierarchical/heterarchical), transaction (spontaneous/organized) and temporal (short-term/long-term) perspectives: (*Fink,* 2005)

- Delimitation of "OrCo" from "market relationship": Whereas market relationships aim for short-term profits, it is an essential feature of OrCo that the transaction partners sacrifice individual short-term goals in favor of a long-term common objective.
- Delimitation of "OrCo" from "informal relationship": Whereas informal relationships can be characterized by including very few organizational elements in a typical transaction, an OrCo relationship can be characterized as one with system characteristics.
- Delimitation of "OrCo" from "hierarchical system" and "concentration": The essential difference lies in the form of coordination in the transaction relationship. Coordination on the basis of self-adjustment in an OrCo relationship is opposed by hierarchical coordination in a hierarchy system and within organizations. (*Pleitner/Roessl,* 1995, p. 675) Consequently, the hierarchical system has only a rigid structure of competences, whereas the OrCo relationship is characterized by high flexibility.
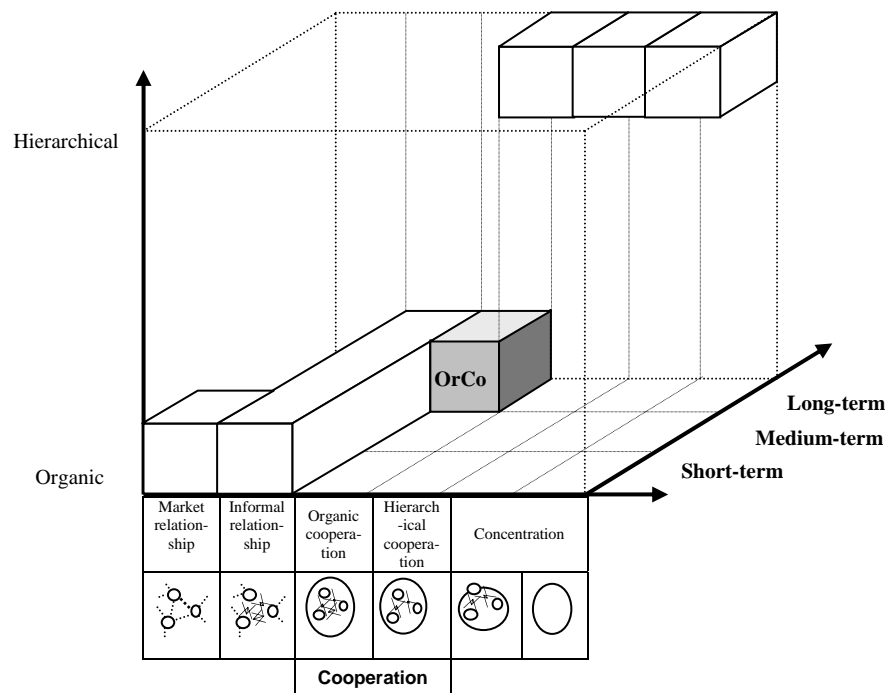
Figure 2: Definition of an Organic Cooperation: "Coordination Cube"

Our measurement of entrepreneurial success is based on an adapted formal structure of the Balanced Scorecard. *(Kaplan/Norton,* 1998, p. 125) In this way, we can ensure integrated coverage of the latent variable "success" within the framework of our empirical investigation.
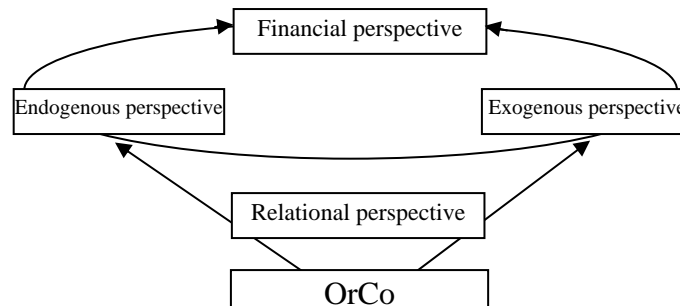
Figure 3: Measurement Model for the Latent Variable "Entrepreneurial Success"

The integration of the three measurement models in the structural model results in the following overall model:
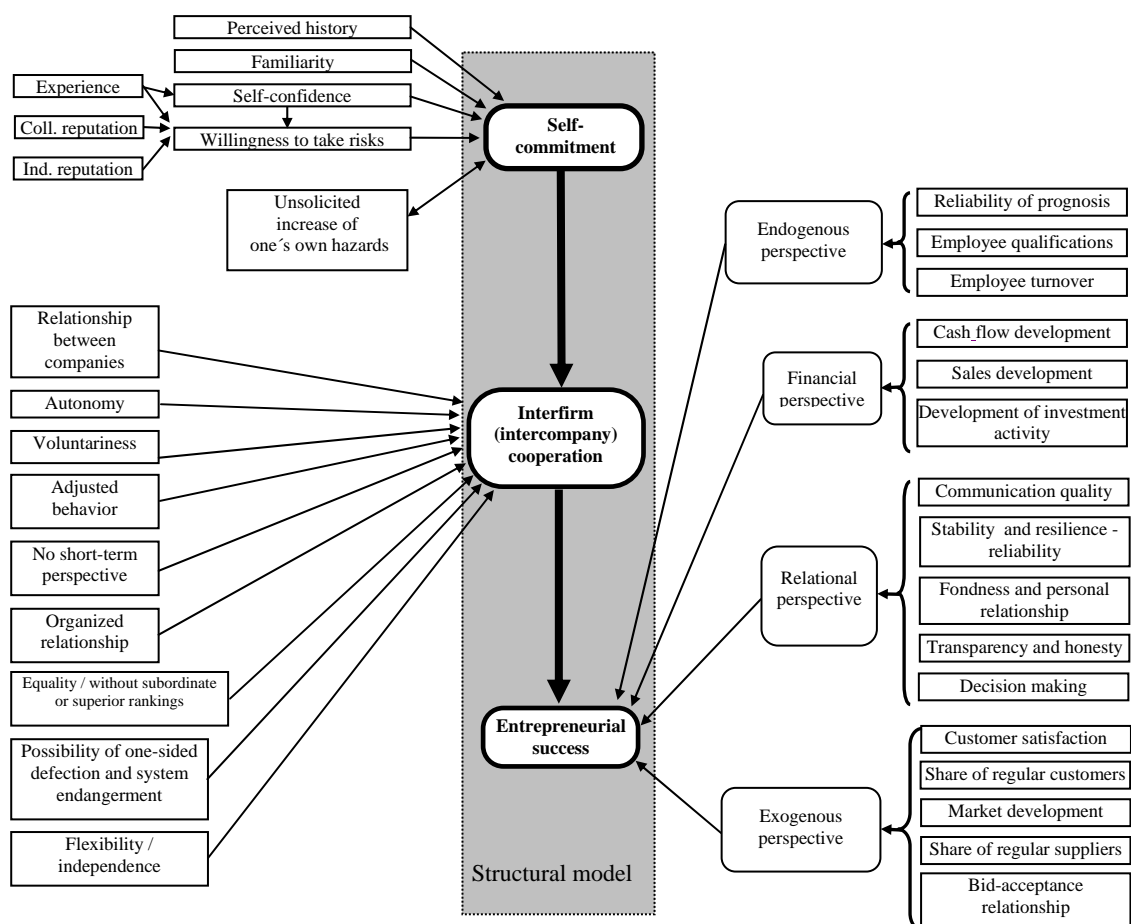
Figure 4: Overall Model

4.4 Questionnaire Survey

In order to ensure a homogenous sample, we sent questionnaires to the managers of Small and Medium Enterprises. The sample represents a random selection of 2.000 Austrian, 4.000 Czech and 4.000 Slovenian SMEs from national databases (Austria: AURELIA; Czech Republic: ALBERTINA; Slovenia: IPIS) which included businesses from all sectors. The sample was drawn employing regional proportionality.

The questionnaire was mailed in the first half of 2006. Despite the fact that no measures were taken to increase the rate of return, 485 questionnaires could be evaluated. 303 (66.2%) of these enterprises were involved in a cooperation relationship and could therefore be included into data analysis. The final sample consists of 91 Austrian, 150 Slovenian and 62 Czech businesses.

4.5. Quality of the Investigation Instrument

Regular interrelation between data sets was examined by calculating several correlation coefficients. The results prove that all hypotheses on the interrelation of latent variables (formulated on the basis of theoretical argumentation) comply with the empirical data. Thus the analysis of the data collected reveals regularities that correspond with the theoretically implied relationships. The correlation coefficients presented in this context result from a consolidation of all measurement variables. The exclusion of measurement variables with little explanatory value for latent variables may have led to more definitive results, but the omission could have also led to a loss of relevant information.

4.6. Testing the Working Hypothesis – Results of the Empirical Study

The empirical investigation focused on empirically testing the validity of the structural model (Figure 4). In the first step, we examined Sub-Hypothesis I in order to identify any patterns within the data that would reinforce the previously stated relationship between the latent variables „self-commitment" and "OrCo." A highly significant Pearson correlation of 0.351 exists between those two variables (cf. Figure 5). Consequently, a strong connection between the strength of a cooperator's self-commitment and the strength of the specification of an OrCo's typical characteristics can be shown. The relationship postulated in Sub-Hypothesis I (in which a cooperator's self-commitment serves as a prerequisite for the establishment and maintenance of an OrCo relationship) can therefore be regarded as empirically confirmed.

We then proceeded to test the validity of Sub-Hypothesis II. As the latent variable "success" was based on four different perspectives in our empirical investigation, the validity of Sub-Hypothesis II has to be tested separately for each perspective of the latent variable "success." Our calculation of Pearson correlation coefficients yielded the following values:

** The correlation is significant at a level of 0.01.
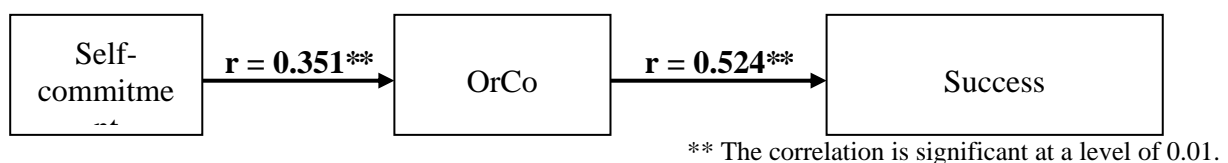
Figure 5: Test of Sub-Hypothesis II – Correlation Coefficients

The variable "OrCo" correlates strongly with "success", thus empirically confirming the connection postulated in Sub-Hypothesis II. Due to the clear confirmation of both hypotheses, the working hypothesis can also be confirmed: The empirical investigation's results show that self-commitment in an "OrCo" relationship is a factor, which is significantly and positively correlated with the success of the firms which pursue a cooperative strategy.

Furthermore, the empirical results underline the fact that the self-commitment of economic actors is not a utopian ideal but a widespread phenomenon in everyday business practice.

5. CONCLUSION

Only the consideration of transaction relationships as interaction between imperfectly informed economic actors of limited rationality and limited opportunism permits the analysis of uncertainty, confidence and complexity. It also opens up new ways of discussing how to overcome double contingency in inter-firm cooperation arrangements.

In this context, we were able to model the necessity of self-commitment in overcoming double contingency and thus also in establishing and maintaining highly complex transaction relationships based on long-term objectives. We were also able to identify self-commitment as an alternative third ideal-type coordination mechanism, thus enhancing the explanatory power of cooperation theory with respect to the evolution and functioning of highly complex long-term cooperation relationships. We thereby identified trust-based self-commitment as a effective and efficient strategic option for economic actors aiming at the development of competitive advantages.

The crucial role of self-commitment in the establishment and the maintenance of long-term, highly complex transaction relationships (e.g., OrCo relationships) also showed in the results of the empirical investigation. Likewise, the positive effects of establishing OrCo relationships on the success of participating enterprises were empirically confirmed. We not only were able to theoretically link and argue the role of the economic actors' self-commitment as a decisive factor in the success of OrCo relationships, but also to confirm these claims.

Given that the strategy of trust-based self-commitment has proven itself to be a ubiquitous coordination phenomenon in countless empirical studies, norm-based trust and self-commitment might well be freed from their frequent characterization as utopian and out of touch with reality. In this strategy we have identified a third ideal-type coordination mechanism, which evidently exists and functions in real inter-firm transaction relationships. Further empirical adaptation should focus in particular on investigating the power of this coordination mechanism in different contexts and cooperation types.

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BEING AT RISK: INSTITUTIONAL AND STRUCTURAL UNCERTAINTIES IN CROATIAN LABOUR MARKETS

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1. INTRODUCTION

Croatian labour markets and working conditions have been experiencing deep changes during the long transformation period, starting with the late 1980s (more in Franicevic and Bicanic, 2004). These processes, in particular Croatian settings, have exposed and made vulnerable many workers to different sorts of risks, including those of unemployment, non-standard work, degraded working conditions, but to poverty, social exclusion and unhappiness too. Saunders finds as vulnerable those workers 'whose participation in the labour market leaves their well-being at risk, because they have difficulty accessing work that is decently paid and/or offers conditions of work that meet basic social norms' (Saunders, 2003: 7 and 17) In most transition countries trends towards flexibilisation of labour markets and widespread use of non-standard employment, including unofficial one, have certainly increased numbers of employees whose work contracts (written or implicit) expose them to a lot of uncertainty (ex ante) and/or a little protection (ex post), either due to the very nature of the contract, or due to low credibility of contract enforcement. As shown in Franicevic (2006) [1], many workers or would-be workers are *vulnerable* to different risks related to their labour market participation and work. Available data on employment, on work contracts, on wages and working conditions point towards the conclusion that risks for all workers have generally increased, but some groups' exposure to some of these risks is typically higher: such groups on the Croatian labour market are both young and old, women and minorities – particularly those members of these groups with 'wrong' or lower education and lack of skills.

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[1] This paper resulted from the author's work on the ILO project 'The Evolving World of Work: Progress and Uncertainties in Working and Employment Conditions in Europe'. Report on Croatia (albeit in somewhat shortened version) was published as Franicevic (2006). Some sections were reproduced here too, however in amended version).

Unemployed are certainly the most vulnerable group – many have high poverty risk too.[2] In spite of some encouraging trends (decreasing unemployment), prospects of getting a decent job are particularly dim for older and/or long-term unemployed (whose *share in total unemployment increased* from 52.4% in 2000 to 58.0% in 2005, and 62.8% by the end of July 2006; registered, CES data). *Among the long –term unemployed prevail* unskilled, semi-skilled, those with basic school and three years secondary school: they made 72.4% of the total in 2005. (CES AB, 2006) Many among them are facing social exclusion (Šverko, 2005; UNDP, 2006a and b).

Many share *multiple vulnerabilities*: for example, young with substandard education risk substandard employment and low pay too. On the other hand, aged workers, if unemployed, risk – unemployability and poverty; if employed – loss of preferred contract, redundancies and decreasing pensions. Women are typically paid lower than men; they are more often exposed to unsocial hours and difficulties to establish good work-life balance, but to 'bullying' too. Many, in addition face considerable safety and health risks, are exposed to pressures of overtime and increased intensity and stress. (Detailed in Franicevic, 2006)

In this paper vulnerability issue will be approached from the two main standpoints: from the *institutional* and *structural* one. Workers in Croatia are vulnerable both to high institutional and structural *uncertainties*: first are about considerable *institutional deficits* present in workers' legal rights protection; second are about *restructuring, competition and globalisation pressures* many firms/sectors are facing and which might lead to changing employment and working conditions, be the firms large or very small. While both types of risks may be taken as general, i.e. encompassing all employed at some extent (which may vary, of course, for individuals, firms, industries and/or regions), differentiated are capacities of workers or groups of them to protect themselves against such risks and/or influence costs associated with them. These differences both concern differentiated levels and/or recourse to legal protection (which by itself gives rise to segmentation of labour force[3]) and/or to collective action (unions, collective agreements – to this I turn in the concluding section).

In many social policy and/or labour market policy studies, particularly those dealing with unemployment, poverty and social exclusion, the concept of 'vulnerability' is often used in an attempt to pick out those individuals, social, ethnic or other minority groups which are most likely to suffer from some social *malaise* (e.g. unemployment, low pay, non-standard contracts, poverty, social exclusion etc.), due to some inherent 'weakness' or 'defencelessness' (as noted by Dercon, 2005). Particularly those with low education and lack of skills are found vulnerable to (long-term) unemployment, low pay, long and/or unsocial hours. Such approach, often nurtured by some IOs (UNDP, UNICEF, ILO, but WB too), associates vulnerability with *poverty* and uses the concept mostly in the context of being exposed to more or less of *institutional/contractual uncertainty* (being usually correlated with some demographic and/or cultural characteristics: being young, female, single parent, belonging to

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[2] Recent CBS data on poverty risk clearly show that being employed is a major insurance against poverty. While poverty risk for the total is in 2005 19.9% without and 17.5% with incomes in kind, poverty indicators for the 2003–5 period show that the *poverty risk among the employed is much lower* than among *other groups, and has been falling*: from 5.6% in 2003 to 4.3% in 2005. It has also significantly decreased for the self-employed (from 25.5% to 17.0%), but *remains high and is increasing for the unemployed* (34.1% in 2003 and 37.3% in 2005) and is *high and stable for pensioners* (22.4% in 2003 and 22.5% in 2005).
[3] The Labour law by differentiating workers rights (to participation) and employers obligations in accordance with number of employed is, *de-facto*, segmenting workers into different working conditions segments. This is only consolidated by the fact that unions tend to be strong particularly in large privatised firms and public sector.

some minority – ethnic or other[4] etc.). In these studies *institutional and cultural* dimension is typically strongly stressed.

An alternative approach, more microeconomic in methodology, is focused on 'risk-related vulnerability: the exposure to risk and uncertainty' (Dercon, 2005). While there is certainly a lot of overlapping in these two approaches, it seems in particular context of deep and dramatic postsocialist transformational changes useful to introduce risk/uncertainty dimension explicitly, both concerning institutionally based risks (due to institutional gaps, including deficits of enforcement) as well as the structural ones, i.e. pertaining to on-going structural changes and associated pressures on employers, employees and governments too. As Chaykowski put it: 'It is worth emphasizing that workers in non-standard employment arrangements need not be precarious in their employment circumstances; neither they are necessarily vulnerable'. On the other hand, 'some standard workers (full time, permanently or indefinitely employed) are vulnerable…' (2005, 3). In particular Croatian settings of unfinished reforms and restructuring, and increased contestability of home markets – this is particularly true. Focusing on those outside the well-protected 'core' of employees (working on full-time jobs with permanent contracts, usually in highly unionised firms/sectors, often with high state stakes) only –may be misleading.

This is why I explicitly introduce structural uncertainty that is one pertaining to the levels of liberalization and globalization, competition and rivalry changing industrial organization, pressures of reallocation and restructuring etc. Shocks related both to necessary reforms and global market openness may strongly affect both large and small firms, both private and public sectors – and in spite of walls of protection given by the Law and/or unions presence even those groups of workers usually not considered as 'vulnerable'.

The paper is organized in the following way. In section 2 I shall discuss contractual/institutional uncertainties workers are exposed to: (a.) concerning work contracts and (b.) concerning protection of workers' rights to safe and healthy working conditions. In section 3, I shall discuss major structural uncertainties – case of one Croatian shipyard will be presented for illustrative purposes. In the concluding section, besides reinstating some main points, introduced is also a discussion on the workers' collective action capacities to influence processes and outcomes in the face of strong institutional and structural risks Croatian workers are exposed to. Importance of civil society involvement for Croatian politics of work is stressed as well.

2. CONTRACTUAL/INSTITUTIONAL UNCERTAINTIES

Position of workers, job contracting, workers rights and their legal protection etc. is regulated by Constitution, by laws (labour law, laws regulating occupational safety and health etc.) and other acts. Their rights are also established through processes of collective bargaining leading to collective agreements. Multiple are institutions designed to protect these rights: courts, state inspectorate and nascent institutions of out-of-courts peaceful conflict resolution. Institutions for social partnership are put in place as well. However, credibility of legal protection is low, and capacities of unions to protect workers are – due to fragmentation and decreasing unionisation – limited. On the other hand, increasing is civil society groups' involvement - e.g. concerning bullying, health and safety protection, unsocial hours,

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[4] As UNDP 2006b report clearly and richly documents.

environment (two subsections deal with that). In this section particular focus will be on the employees' working conditions, associated rights (both concerning material rights and conditions at work, particularly concerning health and safety) and credibility of their enforcement.

2.1 Protection of rights: low capacities, weak enforcement

Weak law enforcement makes all employees vulnerable to employers reneging on the contract, including collective agreements, and hurting other law-given rights. Worrisome is *low capacity of courts* to effectively protect workers suing employers: 'there is a gap between normative and factual level' in workers' rights protection: 'labour cases last too long and in reality we cannot credibly rely on protection of rights protected by the law' (Zrinščak, 2004). Great majority of cases concerns material rights (82.4% in 2005, but more than 90% in 2002-2004 period), many are on dismissals (9.3% in 2005); recently cases related to 'bullying' are appearing too. *(Večernji list*, 24. 7. 2005; *Poslovni dnevnik*, 14. 8. 2006). Interestingly, in last years most cases concerned not-fulfilment of material rights given by collective agreements (often in public sector and/or state-owned firms); this undermines confidence in social dialogue too. In spite of the fact that labour cases should be tried in six months (very unrealistic in many courts), it normally takes three years to get first level ruling and additional two for the final one (Zagreb judge in *Večernji list, 24.7.2005.;* director of Office for Social Partnership*, in Poslovni dnevnik, 14.8.2006*). Even if this may discourage workers to enter into labour cases (particularly when being on their own – i.e. non enjoying unions legal support), they abound: in 2000 there were 18.650 cases, in 2001 – 30717, in 2002 – 34697, in 2003 – 48262, in 2004 – 46930, and in 2005 – 23636. (Ministry of Justice data see Table 6.1 below)

Table 1: Labour cases filled with Croatian courts, by causes, yearly

	2000	**%**	**2001**	**%**	**2002**	**%**	**2003**	**%**	**2004**	**%**	**2005**	**%**
Dismissals	2709	14.5	2350	7.7	1896	5.5	1934	4.0	1794	3.8	2194	9.3
Material rights (wages, bonuses)	14098	75.6	27244	88.7	31582	91.0	43672	90.5	43342	91.8	19486	82.4
Other causes	1843	9.9	1123	3.6	1219	3.5	2663	5.5	2091	4.4	1966	8.3
TOTAL	18650	100	30717	100	34697	100	48262	100	47227	100	23646	100

Source: Ministry of Justice; Note: numbers relate to new cases filed in respective years

Considerable is a decrease in 2005. The most exposed court in Croatia – municipal court in Zagreb – after the critical 2002-2004 period (when each year an astounding number of new cases was pilling up – 22 to 25 thousands yearly) – is also registering decrease in new cases, i.e. coming back to 'normal' 6463 in 2005. This, partly due to re-assignment of cases to other courts (some 16000 in 2004), contributed to significant *decrease in numbers of unresolved cases*: from the peak in 2003 (53466) to 35853 in 2004, 21480 in 2005, and 14789 by August 2006 (Zagreb municipal court data). While this *may look encouragin*g, 'normal' is far from good and risks of new crisis are not eliminated. The 2002-2004 crisis was created by massive filling of cases (supported by unions) concerning collective agreements; this can easily happen again.

Labour inspection branch of the State Inspectorate is understaffed – instead of 170 (as law requires) there are only 99 inspectors. In 2004/2005 12510/12934 controls were made - at about 3% employers only. Annually, number of discovered misdemeanours is increasing. It points to greater inspection's activity but also to increased social and political sensitivity to

labour conditions[5]: in 1998 only 4488 misdemeanours were discovered and processed, while in the 2001 -2005 period it increased from 13480 to 19672. They mostly concern illegal employment; illegal overtime or night work; rights to workers' rest; failure to give to workers proper evidence on pay, contracting part-time work even if in reality it is full time work, and so on. The State Inspectorate (SI) rightly insists on more precise and unambiguous regulations on contracting. Often, unions, employees' councils and workers are approaching SI concerning issues not falling into SI's jurisdiction: SI reports attribute this to low credibility of courts' enforcement but to fear of employees to sue employers too.

Credibility of enforcement is low: in 2004 inspectors filled 6789 cases with misdemeanour courts; in the same year received were 4684 courts' decisions (related to 2003 or earlier); 1153 were decisions of ending court proceedings due to falling into overtime. In 2005, 7200 cases were filled with misdemeanour courts while 5503 court decisions were received (related to 2004 or earlier); even 1965 (or 36%) on cases falling in overtime! SI also complains about courts' decision not being adequate enough.

Not surprisingly, thorough *reforms of judicial system and proceedings* are asked for. This is on the top of the EU demands (e. g. EC, 2005a) and some are arguing for the establishment of specialised labour court. Further development of mediation and arbitration capacities in labour disputes could provide *alternative to courts* –some progress in that respect was achieved with Office for Social Partnership's activities concerning collective disputes. Finally, increasing inspections' capacities and capabilities is of great importance as well. Yet, firmly establishing the social value and respect for employees' rights, after so much of disrespect for them in years of 'great transformation', seems to be of fundamental importance. What may be at stake, as Annex 1 illustrates is political issue – control over discourse of social/rights.

2.1.1. *Working Sunday or who is to control language of social*

Many are exposed t*o unsocial hours. Non-paid overtime and/or Sunday/holidays work are among most often voiced complaints by workers and unions*. As Table 2 shows, besides comparatively high incidence of shift work, many *usually work on Saturdays* (with quite stable shares, between 25% and 26% , although women shares are significantly higher – in 2005 the figure was 24% for men but 28.4% for women), *and on Sundays* (more than 14% in 2005). Since 2000 *there has been considerable increase of Sunday work*, particularly for women, reaching a very high 17.5% in the 1st and 17.1% in the 2nd half of 2005 (most likely associated with retail sector reorganisation, that is, the entry of international and the development of domestic chains, the construction of large shopping malls at the edge of towns). In addition, in 2005, 27.7% men and 20.2% women were *occasionally* working *Sundays*; 52.9% men and 37.4% women *Saturdays* (CBS LFS 2005, 2nd half). Taking into account women's typically higher commitments at home with housework and family, *maintaining a work–family life balance* must be quite daunting for many, as some of my interviewees (particularly in major retail chain) indeed complained!

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[5] Croatian Social Liberal Party had in spring 2006 an opened phone line in an action against misuses of Sunday work: at the end of action out of 673 workers who called in to report abuses, most were employed in small firms; out of them 91% claimed not to be paid for Sunday/overtime and 4% claimed to be paid in cash; 2% were receiving free days instead. However 64% would work Sundays if properly compensated. (www.index.hr, 19.3.2006). Unions in winter 2006 have started with a campaign against 'black work' in which some local governments took strong interest too.

Table 2: Unsocial Hours – Share of Total Employment, 1998–2005, Croatia

	1998/I	1999/I	2000/I	2000/II	2001/I	2001/II	2002/I	2002/II	2003/I	2003/II	2004/I	2004/II	2005/I	2005/II
Shifts	–	**20.7**	**20.1**	**22.1**	**21.4**	**22.1**	**20.9**	**20.9**	**20.3**	**19.8**	**19.9**	**19.5**	**19.1**	**18.8**
Men	–	*18.6*	*19.2*	*21.3*	*20.1*	*19.4*	*19.1*	*19.8*	*18.2*	*17.7*	*19.2*	*17.8*	*18.1*	*17.7*
Women	–	*23.2*	*21.1*	*23.1*	*23.1*	*25.3*	*23.3*	*22.3*	*22.9*	*22.4*	*20.7*	*21.3*	*20.3*	*20.2*
Evenings	–	**6.2**	**5.7**	**5.0**	**6.0**	**5.8**	**5.5**	**5.3**	**5.6**	**4.7**	**5.4**	**5.1**	**4.6**	**5.7**
Men	–	*6.5*	*6.7*	*5.7*	*6.9*	*6.3*	*6.0*	*6.0*	*5.8*	*4.9*	*5.7*	*5.0*	*4.5*	*5.6*
Women	–	*5.8*	*4.6*	*4.2*	*4.9*	*5.3*	*4.7*	*4.6*	*5.3*	*4.5*	*5.1*	*5.1*	*4.8*	*5.7*
Nights	–	**2.3**	**2.3**	**2.2**	**2.5**	**2.3**	**2.5**	**2.3**	**2.2**	**2.0**	**2.4**	**2.1**	**1.7**	**2.2**
Men	–	*3.1*	*3.3*	*(3.0)*	*3.4*	*3.4*	*3.4*	*3.5*	*3.0*	*2.7*	*3.3*	*2.7*	*(2.1)*	*2.8*
Women	–	*(1.5)*	*((1.0))*	*((1.1))*	*((1.3))*	*((0.9))*	*(1.3)*	*((1.0))*	*((1.2))*	*((1.0))*	*((1.3))*	*((1.5))*	*(1.1)*	*(1.3)*
Saturdays	**26.7**	**24.5**	**23.5**	**21.1**	**24.8**	**25.6**	**23.9**	**24.9**	**26.1**	**26.1**	**26.5**	**25.2**	**26.0**	**25.9**
Men	*25.5*	*23.2*	*23.2*	*21.0*	*24.2*	*24.5*	*23.5*	*24.3*	*24.1*	*24.8*	*25.1*	*23.2*	*24.0*	*23.9*
Women	*28.1*	*25.7*	*23.9*	*21.3*	*25.5*	*26.7*	*24.3*	*25.6*	*28.4*	*27.6*	*28.1*	*27.6*	*28.4*	*28.4*
Sundays	**12.5**	**11.8**	**11.0**	**10.1**	**12.5**	**11.8**	**12.0**	**13.2**	**14.2**	**14.5**	**13.3**	**13.1**	**14.5**	**14.2**
Men	*12.2*	*11.1*	*10.5*	*9.8*	*15.3*	*11.8*	*11.3*	*12.8*	*12.7*	*13.0*	*12.2*	*11.5*	*12.0*	*12.0*
Women	*13.2*	*12.7*	*11.8*	*10.5*	*13.0*	*11.9*	*12.9*	*14.0*	*16.2*	*16.3*	*14.8*	*15.1*	*17.5*	*17.1*

Source: CBS, For 1998-2004: 'Labour Force Surveys Results Croatia – Europe', various years; for 2005 CBS LFS

It is small wonder that with the retail explosion, involving the entry of multinational chains and growing consumerism, *working Sundays has become a major labour issue*. The Union of Commerce of Croatia argues that, of about 65,000 salespersons, some 40,000 work every or almost every Sunday – many without their rights to compensation and/or free days being respected. The preferred trade union solution is a radical restriction of Sunday work, and' capitalism with a human face' (SSSH, mimeo, 2005). In this respect, it is receiving the full support of the Catholic Church which organised a campaign on the basis of a 'culture of free Sundays' and arguments centred on dignity and 'family protection' (Prenđa et al, 2004; Baloban and Črpić, 2005). In this connection no compromise is acceptable to the church, as restated by Cardinal Bozanić recently (*Jutarnji list*, 10.9.2006).

The first attempt by the trade unions and a group of (conservative) political parties was successful: by January 2004 all shops, after amendments to the Law on Commerce, were forbidden to open on Sundays, except some small ones. However, six months later Croats were able to return to their favourite Sunday pastime when the Law was successfully contested at the Constitutional Court by (i.) one local community – the site of some major retailers – which claimed a loss of tax revenues; (ii.) a group of big retail chains – claiming denial of their constitutional right to fair competition; and (iii.) two citizens claiming discriminatory treatment of citizens/employees of other religions. However, the Court's decision opened the way for legitimate contestation of working Sundays, thus opening up a new round of action and debates.

That actors in this debate are fully aware that what is at stake is not only, or even primarily, working Sunday but rather who is going to dominate the discourse of social has been clearly shown by somewhat surprising (in 2004 unions supported non-working Sunday) move by leaders of four union federations (including SSSH, of which the Union of Commerce is the member). The arguments (according to online HINA report on 23.11.2005.) for this opposition to the Catholic Church and Union of Commerce demand are instructive: (1.) instead of forbidding Sunday work, the provisions of the Labour law should be enforced, concerning additional payment and free day a week, the government should use its inspection and punitive instruments strictly; (2.) it is counterproductive to forbid working Sundays in a country with high unemployment when there are certainly those who would be happy to work Sundays and holidays; (3.) it brings discrimination between workers in commerce and other industries and services; (4.) work on Sundays is not a matter for the Catholic Church, but for social partners; instrumentalisation of the government and unions by the church should be resisted (Boris Kunst, one of unions' leaders).(www.hina.hr and *Večernji list*, 24.11.05). However, some unions (from the strongest federation – SSSH; and HUS) are strongly against: how this debate might affect internal unity of SSSH and trade-union national unity is still a question. The conflict resulted with a resignation of the president of the strongest federation (SSSH), after being heavily criticised from some member unions (on January 18, 2006.), and latter-on with the election of the president of the Union of Commerce for the SSSH president. Last argument, concerning separation of the state from the church (constitutional principle) has been voiced in a number of comments in (particularly – liberal) press (e.g. 'In modern states churches don't intervene in governance, neither government intervene in religion', *Jutarnji list*, 22. 11. 2005). Writes Davor Butković, influential pro-liberal journalist: 'There is no government that should forbid work on Sundays: it is about breaking elementary liberal principles, about exceptionally visible incest between state and Church, about symbolic return to communism' (*Jutarnji list*, 16.11.2005.). Of course, the political right is not impressed, indeed it is persisting… Interestingly, however, some political parties (most notably – Croatian Peasants Party) which sponsored the 2004 anti-Sunday campaign, very recently quite

softened their position. Not surprisingly, employers are mostly opposed, claiming: loss of jobs, loss of profits and trade diversion (*Večernji list*, 26. 11. 05). In addition, the Association of employers in commerce is asking for an 'equal treatment'(www.biznis. hr, 2.11.2005.). While public polls show the citizens to be divided (e.g. a December 2005 online poll by Moj Posao showed 44% against and 43% in favour of shops opening on Sundays) a new compromise solution (aiming at better protection of workers' rights) is still expected to come before the Parliament... The solution may be of paradigmatic importance for labour and employment policy, but for future 'discourse of rights' in Croatia too.

2.2 Health and Safety: Deficits of regulations and enforcement

Rights to health-protection and safe work are fundamental for workers well-being. Yet, some major deficits are present both concerning regulations and their enforcement, making many workers vulnerable to risks of health degradation, injuries and decreased work capacity. Recently, first data from the 2005 4[th] European Working Conditions Survey (for the first time Croatia was included) indicate that *exposure to health, safety and stress related risks in Croatia is above the average for EU-27 (includes Romania and Bulgaria), EU-25, EU-15 and NMS-10 for a number of variables*: threats of physical violence (6.0; 6.1; 6.3; 5.2 vs. 6.5 in Croatia); bullying/harassment (5.1; 5.1; 5.4; 3.8 vs. 5.2); unwanted sexual attention (1.8; 1.8; 1.7; 2.2 vs. 2.8); consider health or safety at risk because of work (28.6; 27.5; 25.2; 40.2 vs. 38.9); work affects health (35.4; 34.3; 30.6; 55.8 vs. 51.8) (http://www.eurofound.eu.int). Interestingly, while the 2005 4th European working conditions survey puts share of those 'absent for health problems in previous year' in Croatia (19.4) somewhat lower than in EU-27 (22.9), EU-25(23.4), EU-15(23.5) and NMS-10(22.8), reported 'average days of health-related absence in previous year' put Croatia (with 9.4) *on the very top* (4.6; 4.7; 4.5 and 5.4) (http://www.eurofound.eu.int). This might indicate high level of stress (see Annex 2, below), but serious studies of absenteeism are unfortunately lacking as well. It may also indicate institutional deficits in health protection. Data in Table 3 provide some illustration of recent trends concerning sick leaves:

Table 3: Temporary work disability and sick leave, 2000–5, Croatia

	2000	2001	2002	2003	2004	2005	2006 1st half
Number of active insured persons, '000			1 328	1 389	1 413	1 450	
Sick leave rate*	3.71	4.05	3.99	3.66	3.53	3.72	3.70
Average duration of sick leave, days	29.99	21.50	21.29	19.08	18.70	18.54	19.80
Average number of absences per day	48 106	52 936	53 047	50 894	49 878	53 922	55 002
Average number of absences per employed*			12.50	11.47	11.08	11.64	

Source: HZZO; Croatian Health Insurance Institute (CHHI).
Note: * based on number of active insured persons.

In 2002 the tripartite *National Council for Work Protection* was formed. It has not had much of an impact so far, but its 2005 outline of the 'National Programme for the Protection of

Health and Safety at Work' (July 2005) is a sobering document on issues which are still receiving *low priority* from policy-makers and enterprises, but unions too. It reveals numerous *failures and weaknesses in workers' health protection*:

- *There is no systematic follow-up of workers' health conditions exposed to specific risks*. In spite of legal requirements, only 10% are regularly monitored while 'specific health protection is practically unavailable to workers' (NCWR, 2005, 9).
- *Coordination is lacking* between institutions involved in protecting workers' health; prevention and monitoring are seriously compromised by the current status of *occupational medicine* which is 'excluded from the ... system of primary health insurance' (NCWR, 2005, 16).
- Current social security regulations don't stimulate employers to take greater care: the costs of work injuries and occupational diseases are born by contributors to the system (that is, the employed and self-employed) 'rather than employers, where employees got injured or sick' (NCWR, 2005, 16).
- *The law does not recognise work-related diseases*, and the capacity for their early recognition or prevention is low. *Among the reasons for sick leave, various diagnoses strongly dominate* – about 92% of the total in 2003 were caused by them (and generating 89.3% of total costs); along with 8% by work accidents and 0.3% by occupational diseases. However, *only for occupational diseases and work injuries are systematic data produced. This considerably distorts perceptions of the situation*:

> There are no data on workplace influence on health degradation, except when the primary causes are occupational disease or accidents at work. When workplace hazards are a cause of invalidity[6] (but not the basic one) the harmful influence is not registered at all. It is not known ... how much is being spent on consequences of injuries and diseases as a consequence of working place harmful conditions. (NCWR, 2005, 11, 12 and 14)[7]

Major regional differences in the average number of absences per employee – ranging in 2005 between 13.5 and 8.9 for 20 counties and the city of Zagreb (CHHI data) – *point to the importance of regional/local context, differences in industrial structure and governance, organisation and efficiency of health services, but also specific traditions*. A physician from the best performing county attributed its success to the functioning of the system, but also to good industrial relations: 'employees here don't need to use sick leave to resolve conflicts with employers'. A physician from a weakly performing county, on the other hand, stressed difficult working conditions and long hours and pointed to a recent increase in the incidence of sickness. Yet a colleague also pointed to the influence of drinking habits in the area (*Jutarnji list*, 28.8.2006).

The low numbers on *occupational diseases* (Table 4, below) may be misleading too. *There is weak enforcement of regulations and employers have low incentives to engage in prevention*. There is typically a major increase in the number of occupationally sick when a firm goes bankrupt: workers claim occupational disease in order to realise their rights. The case of

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[6] In 2005, 23% retired were receiving invalidity pensions (out of which 75% for 'general incapacity for work') (HZMO data). This is certainly a 'grey zone' in another respect too – low transparency and potential corruption involved.

[7] New Law on health insurance of protection of health at work (July, 2006) defines this area somewhat differently; still work-related diseases are not recognised as relevant category – work injuries and professional diseases are dealt with only.

asbestosis, in two firms, is paradigmatic in that respect (NCWR, 2005, 12). Occupational diseases are most often diagnosed in workers exposed to harmful influence for more than 21 years (46.6%); next come those with 16–20 years of exposure, at 17.2%; with those with less than 6 years at 11.2%) (Dečković-Vukres, 2006) – indicating weak monitoring and prevention.

Table 4: Accidents at work and occupational diseases, 1985–2005, Croatia

	Total number	**Per 100,000 employed**	**Fatal accidents at work**	**Occupational diseases**
1985	70 574*	4 330*	119	–
1990	39 907*	2 610*	67	129
1992	23 051*	1 507*	190	232
1994	19 846*	1 431*	55	154
1996	24 526*	1 710*	50	144
1998	22 965*/19 549**	1 749*/1 489**	49	152
2000	22 054*/18 661**	1 762*/1 439**	40	81
2001	21 744*/18 469**	1 665*/1 415**	42	91
2002	21 184*/17 677**	1 595*/1 331**	44	106
2003	23 042*/18 125**	1 659* /1 305**	50	122
2004	21 950*/17 655**	1 554* /1 250**	42	103
2005	22 738*/17 885**	1 568*/1 233	62	116

Sources: Dečković-Vukres et al. (2005 and 2006).
Notes: * Total: includes travel to/from job (commuting accidents); **at workplace only.

The well publicised case of 'Salonit' from Vranjic, where for decades asbestos was produced, with serious consequences for both workers and locality, illustrates the recently heightened involvement of various stakeholders. However, it also shows up the low administrative and political capacities – not to mention credibility – when dealing with cases where health is at serious risk, but interests may conflict.[8]

In 1985–1994, the number and *rate of accidents at work* fell considerably – mostly due to dramatic decrease in economic activity and radical de-industrialisation. From 1996 to 2000, with economic recovery it increased and varied between 1700 and 1753. Finally, in 2001–5 it varied between 1554 (2004) and 1659 (in 2003). In the same period the number of accidents *ranged* between 21,184 (2002) and 22,738 (2005), with a 3.6% increase in 2005. It is hard to tell from the available information whether this is an effect of greater safety at work (there has been a reduction in the rate of accidents in the workplace in the 2000s: in 2005 it fell from 1250 to 1233), and/or the effect of a shift of the labour force towards 'less accident-prone' occupations (see Table 3 above). The largest *number of accidents in the workplace* in 2005 was found in manufacturing (35.1% in 2005) and construction (13.5%). The *accident rate* in 2005 was highest in agriculture and forestry (2874), construction (2798) and manufacturing (2465) (similar to 2003 and 2004). In 2005 there was an increase in fatal accidents. Again,

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[8] Civil society groups (ecological groups from the area and association of persons affected by asbestosis) voiced deep concern and distrust into government's further moves, disappointed by government allowing further continuance of production; allegedly until the end of 2006. (*Slobodna Dalmacija*, 13.11.2005 and *Radio 101*, February 22, 2006). Presently, the firm is under bankruptcy proceedings and alternative investors are sought for, but again with many suspicions around.

construction (20%), manufacturing (11%) and agriculture and forestry (11%) dominate (Dečković-Vukres, 2005 and 2006). Serious studies are lacking.

Limited is employers' willingness to observe safety regulations, poor is enforcement capacity. Workers' safety is regulated by the 1996 Law on Protection at Work, and related acts and norms. The development of regulations in this area is influenced by Croatia's EU association process and legal harmonisation. There are a great number of EU directives on health and safety, and the process is well under way (Analiza, 2004). Out of 26 EU directives, the harmonisation process has been completed for eight, and a further five are expected to be realised during 2006 (communication from government expert). For many businesses, which give these issues low priority, it may produce additional pressures – they can hardly expect to compete in the EU by cutting corners on safety and health protection.

Even when regulations are EU harmonised*, some firms simply do not observe them* (for example, in the case of machinery and other equipment) (Analiza, 2004, 11). For example, little attention has been paid to the health implications of prolonged work with PCs and monitors; on the other hand, muscular/skeletal diseases make up 30% of the total (Analiza, 2004, 13) and result in a high rate of work absences and health costs.

The employer is responsible for organising and enforcing protection at work and the burden of proof is on him (objective responsibility), regardless of the number of employees. However, inspectors find *employers* 'uninterested in assuring a satisfactory level of safety for their employees … Those working in special conditions … are not sent for preliminary and periodical health examinations … while dangerous equipment is not regularly checked … Employers and their agents are still not aware that ... they are responsible for the safety and health protection of employees'. *Employees' work and technical discipline is lacking*, and employers do not enforce it in accordance with the law (SI, 2005 and 2006). *These findings were fully confirmed in the firms I visited*. (Including cases reported in Franicevic, 2006 and here). Persons directly responsible (for example, foremen on the shop floor), even when trained in safe working practices and formally appointed the owners' safety representatives, often do not insist on safe work and 'turn a blind eye' (I witnessed that too), sometimes even pushing workers into unsafe practices. This creates incentives for underreporting. In most firms safe work is not a priority even for the trade unions which focus more on wages and other rights.

Fears have recently been expressed (by employers) of a regulatory overload, particularly in the case of SMEs who lack resources and the capacity to comply with the numerous regulations on safety. In addition, the Labour Inspectorate (branch of the State Inspectorate) is seen more repressive than preventive (Kulušić, 2005). Yet, in my interviews those responsible for safety at enterprises found, despite many criticisms, that the Labour Inspectorate was helpful when faced with management indifference or negligence.

Implementation deficits are more pressing than the regulatory gaps. The number of occupational safety inspectors is insufficient and monitoring and enforcement capacities are low. According to the law there should be 170 inspectors; in fact, there are only 89 (SI, 2006). For that reason the proportion of planned inspections, with a stronger focus on prevention, is decreasing. On the other hand, there has been an increase in mandatory inspections due to the rise in reported fatal, heavy and collective accidents at work (692 inspections in 2002, 881 in 2003, 1026 in 2004 and 1124 in 2005; and 896 inspections for less serious accidents resulting in more than three days' work absence in 2004 and 759 in 2005). These checks revealed 45

fatalities (37 in 2004 and 47 in 2003), and 1101 heavily injured (1031 in 2004, 853 in 2003 and 684 in 2002). This *increase* was attributed in the State Inspectorate annual reports to an increase in economic activity often without insufficient safety measures; the absence of efficient prevention systems, including insurance systems (nowadays most costs are socialised); and a lack of education (SI, 2005 and 2006). Safety managers at some firms (e.g. shipyard, construction) pointed to increased risks due to growing reliance on cooperation and subcontracting with firms whose employees are not sufficiently trained for carrying out (safely) the work they are asked to perform and/or increasing reliance on temporary/seasonally employed (e.g. hotels)(reported in Franicevic, 2006).

The credibility of the courts is low again: in 2004/2005 inspectors submitted 1894/1750 misdemeanour applications for 3628/3483 misdemeanours; in the same years the courts decided issued 1000/1267 fines (SI, 2005 and 2006). Courts, being overburdened, often don't decide the cases brought to them by the SI before the relevant deadline had expired: in 2005 out of 1099 decisions received by the SI from the courts even 41% concerned such cases! In addition, penal proceedings typically last for a couple of years, often resulting in conditional discharge even when consequences for workers are very grave (*ibid*).

2.2.1. Bullying still to be recognized as a work related problem

As the CHHI data show, after musculoskeletal disorders, mental disorders are (together with work accidents) the most common causes for *sick leaves*. A notable psychiatrist recently attested that *stress-related symptoms are increasingly bringing the employed into clinics*. He attributed that to increased competition in the workplace: 'if you don't want to do the job, there are three people waiting in line to take over' (*Slobodna Dalmacija*, 28.8.2006). Many believe that the *workplace has become more stressful*. And data from a number of countries points to clear relationship between stress, absenteeism and work disability. (EFLWC, 2005, 20) A recent online survey (n=474) showed that 34% of people would willingly accept a lower paid job with less stress (some report family priorities, some are 'at their wits end'); an additional 35% would accept a lower paid job on condition that the reduction did not exceed 10–25% of current pay, while 29% would not accept such an offer at all ('there is nothing like low stress job', but 'money pays the bills'). In spite of its unrepresentativeness this survey indicates that stress is not only quite common but is also perceived as harmful for employees (MP, 2005). In my interviews in selected firms two major sources of stress emerged: (i.) attributable to pressures exerted by those positioned higher up the job ladder, and (ii.) caused by 'attainment deficit'. While, research shows modest increase in job satisfaction and increase in attainment values, compared to the earlier period, which may be indicative of generally better conditions in the early 2000s, there is still 'a profound deficit in need satisfaction' (Maslić Seršić and Šverko 2000; Maslić Seršić et al., 2005), pointing to the precarious position of Croatian workers in the 2000s too.

*Exposure to bullying (or mobbing) is strongly associated with stres*s. (Hamandia 2006, 287). This has also been recognised in Croatian debates on 'workplace bullying'. Its victims often suffer from various psychic, emotional, physical and behavioural conditions: PTSD is often diagnosed. (Jokić-Begić et al. 2003 – being psychiatrists they report 'growing numbers of clients looking for help due to bullying at work'). An association helping the victims of bullying was formed in 2004 (www.mobbing.hr), raising public awareness of the issues involved. Some women's groups regularly point to sexual harassment at the workplace. The

government Office for Gender Equality and the parliamentary Gender Equality Committee have become interested, as have a number of public health institutions.

The evidence is indicative. The new association has been approached by many victims from across the board: from cleaners to university teachers (*Vjesnik*, 25.10.2005). The 2002 field research found that between 15.4% and 53.4% of the sample (n=700) had experienced some sort of bullying. Men are more exposed to threats or physical assaults, women to sexual harassment. Psychiatric problems associated with work were reported by 37.7% to 54.8% of workers; it is unclear what proportion can be attributed to bullying (Koić et al. 2003, 16). Online research showed that among 812 persons who decided to participate, 84% had been exposed to psychical abuse at work (Posao.hr, 2005).

This indicates that the extent of bullying may be quite large; however, *legal protection and public policies to deal with it are considered inadequate* (even if the Labour Act forbids discrimination and psychical molestation), and new regulations are asked for. Ms. Sobol, president of the Gender Equality Committee, points to the importance of raising public awareness, but also of legal action which would produce 'new legislation, because we believe that what is laid down in the existing laws is not recognised as bullying' (*Glas Istre*, 18.3.2005). The lack of credibility of law enforcement makes victims even more hesitant to speak out and seek protection – this is one of the reasons why the establishment of a Court of Labour Disputes should be seriously considered too (Bodiroga Vukobrat, 2005).

Recognising bullying as a 'work related problem' (*ibid.*) and developing a network of supporting public institutions where victims will be able to find help has also been suggested. Particularly important, experts believe, is to sensitise employers to the issues involved, such as the potentially detrimental effects of bullying for productivity and efficiency. Importantly, through discussions on and activities related to this issue, civil society groups are becoming relevant actors on the labour politics scene too. If the Sunday issue is about extent of the market, bullying is about the interpretation of responsibilities of the sides in the contract during its execution. If the Sunday issue reflects challenges of tradition to postsocialist 'modernity', here it is modernity (discourse of human rights entering the work place) which challenges tradition of submission, compliance and silence; but of high paternalistic expectations too: there is a lot of unused scope for civil society involvement.

3.   STRUCTURAL   UNCERTAINTIES: UNFINISHED   AGENDA   OF RESTRUCTURING AND REFORMS, STRONG ARE GLOBALISATION PRESSURES

Increased vulnerability of Croatian workers to various employment and working conditions risks is not only due to above discussed institutional factors and deficiencies. It can be argued, in post-socialist transformational perspective especially, that transition reforms *per se* have dramatically increased and generalised labour market related risks and vulnerability of workers (but mangers too) across the board. This is due to increased rivalry and contestability of markets, both product and factor ones, but also due to particular political and moral economies of the period (more Franicevic, 2002). In this sense, it may be argued that risks are positively related to the levels of liberalisation, entry and exit conditions, globalisation etc. However, there are great differences across sectors and industries (both structural and regulatory). On the other hand very differentiated are capacities and abilities of different

groups of workers to 'insure' themselves against such risks, either through erecting barriers to them (collective action, contracts) or through ensuring effective compensation in case of risk event. This leads towards important policy issues, both concerning ex ante and ex post aspects of the risk. (Dercon, 2005)

Unemployed are certainly the most vulnerable group at the labour market. On one hand, this very numerous group has been facing some encouraging trends (reduction in 2000s). On the other hand, prospects of getting a job are very different in the group, as are unevenly divided risks of getting in long-term unemployment, facing situation of unemployability and social exclusion. Prospects of getting a job are particularly dim for older and/or long-term unemployed as we saw before: many are facing social exclusion. *Data on the unemployed high poverty risk* are consistent with data on *low unemployment benefit coverage*: 'since the duration of unemployment is greater than the duration of benefit, most unemployed lose their benefit but remain unemployed' (Crnković-Pozaić, 2005). In addition, benefits are only about a quarter of the average wage, and do not suffice to cover one's basic needs.[9] Despite the recent increase in coverage – from 20.3% in 2004 to 23.6% in 2005 (CES AB, 2006; UNDP 2006 a and b) – the pressure to engage in informal work is still strong, while individuals capacities to engage in (re)training are - low. Not surprisingly, public surveys (for example, IDEA 2002) show fears of poverty and unemployment as the most important personal fears and the most important public issues in Croatia.

However, many currently employed may find themselves at high risk of unemployment or loss of preferred form of contract, due to structural reasons typical of industry/sector/firm:

Firstly, there is unfinished agenda of *privatisation and restructuring (including many internally privatised firms)*. The state is still in control of some firms whose future perspective is highly uncertain. Typical examples are shipyards (see Annex 3, below), some firms in agricultural sector, steel-making, tourism. Pressures to privatise (including those coming from IFIs and EU) are strong, as is local stakeholders involvement in defending employees and local communities stakes.

Secondly, there is a hardly started agenda of reforming and streamlining *the public sector*, including public utilities and state administration – with the EU accession processes getting momentum, reforms of the sector are increasingly coming into focus (see Ott, 2006; EC, 2005).

Thirdly, there is still high level of *subsidies* to some sectors/firms – they may be fiscally unsustainable but there is also commitment to their substantial reduction and reform in accordance with the EU rules on the state-aid, related to EU accession. (See Jović and Kesner-Škreb, 2006)

Fourthly, there are strong *globalisation pressures* on many firms/sectors – which may involve even drastic measures. For example, a case of Pliva, a leading Croatian pharmaceutical firm, shows that even highly educated scientists may be vulnerable to strategic moves, as was a decision to abandon fundamental research in new molecules and focusing on generics only. Some industries have found themselves under pressures from cheap imports from Asia or low-cost rivals from East Europe (Romania for example). Deregulation of telecommunications sector increased market's contestability – leading to pressures on once

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[9] Of course, unemployed persons are entitled to apply for welfare: '...there were about 60 thousands unemployed welfare recipients and 318 thousand unemployed in December 2003, a ratio of about 23%.' (Crnković-Pozaić, 2005, 42)

dominant firm to restructure. This led to strong conflicts with unions over dismissals and severance payments.

Fifth, these pressures involve *deregulation, and opening competition* on markets served by public monopolies. (e.g., energy sector, Croatian Railways, Jadrolinija a large liner shipping company) As many recent cases show, such pressures are likely to be met with high resistance from employees and contested by unions, typically present in large firms and protected sectors. Of course, situation is very different for employed in SMEs or self-employed, where not only employees but employers are often defenceless to above pressures (e.g. dramatic impact on many small shops caused by entry of retail chains). All this can only lead to further differentiation of working conditions and employment statuses, but consolidate trends of segmentation of labour markets in Croatia too.

In firms making job cuts older workers are often targeted first, and in many firms restructuring has not yet come to an end. And even if such workers are lucky enough to get a good severance payment in exchange for early retirement, they are still vulnerable to *very low pensions*; many fear poverty and decline such management offers – this surfaced in some firms I visited.[10] The average pension is decreasing and it is particularly low for those retired after January 1st 1999. While those who retired before in December 2005 were receiving an average pension of HRK 2002 (270 €)[11], 320,000 'new' ones received only HRK 1507 (204 €); the annual cohorts' average is also so that in 2005, 47,000 retired on an average HRK 1250 (169 €), and further decreases are expected until 2009. (HZMO data).

The shipyard case presented below illustrates some among the issues discussed above (in Franicevic, 2006 presented are cases on hotels industry, construction and self-employed).

3.1. Troubled shipyards - restructuring or perishing?

Shipbuilding has been for decades one of the strongholds of former Yugoslavian, and later of Croatian economy.[12] All major Croatian shipyards, in the early 1990s, heavily suffered due to the war, lesser demand, and depressed prices. While making heavy losses, they have been surviving only due to governments' subsidies. Shipbuilding is a true political 'hot-potato' and major issue in Croatia's negotiations with IFOs and EU. The industry's output is mostly produced by the five state-owned shipyards: three are 'large' and two are 'medium' ones. In spite of recovery of production and market position by late 1990s, they are still making heavy losses and are heavily dependent on the state-aid. In the period 2003-2005 direct state subsidies to five shipyards were 4.7 - 4.6% of total state aid. (WB, 2006a).

Pressures to radically restructure and privatise have increased. Namely, Croatia has committed itself to harmonise its state-aid policy with the EU as well as to privatise shipyards. In this, assistance has been given by the World Bank too. The European

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[10] Recently a number of highly publicised conflicts in firms aiming at restructuring, in spite of the fact that older employees were offered comparatively very high severance payments (e.g. Coca Cola, HT, TDR),. Typically, when the state is major owner restructuring program is done in greater coordination with unions in order to provide for affected (older) workers (as very recently in the case of Croatian railways) – however, it does not affect the future level of their pensions.

[11] Values in EUR given here and latter are for illustrative purposes only: HRK 7.4 for 1 EUR exchange rate is used.

[12] This (previously not published) case, with just slight changes is reproduced here as it was written for the ILO project.

Commission criticised the government for delaying restructuring and privatisation, and asked Croatia to bring restructuring program 'without further delay', and bring state-aid in line with 'State aid rules and with SAA obligations' (EC, 2005, 45, 79 and 80; also see Jović and Kesner-Škreb, 2006 and www.banka.hr on 6.2.2007 with Vincent Degert's comment).

National strategy for restructuring is in the making. In January 2007, the Government sent to EC an outline for restructuring all five shipyards (based on individual plans for each shipyard) based on strong state support including, once again, financial sanation , technological and other restructuring – the final decision on each of them is yet to be made. (*Jutarnji list*, 29.1.2007.) There is a serious time constraint involved. For some time global shipbuilding, typical for its cycles, has been enjoying higher prices (since 2002/3) and fuller books of orders (since 1997): – in Croatia they are full until 2009/2010. However the peak might be reached by the end of decade (WB, 2006a). A *sense of urgency has been created* – 'window of opportunity' for restructuring might be opened for a limited time. Imminence of harmonisation with the EU regulations is providing (so far missing) credibility to the threat of major reduction in subsidies.

Total employment in the Croatian shipbuilding industry felt dramatically: from 21900 in 1990 to 13330 in 1996 to reach with recovery 15440 in 2002. Presently the five shipyards employ directly some 10.000 employees with additional 3000 in holdings (of the three large ones) and some 30.000-40.000 are estimated as employed with sub-contractors. (WB, 2006a, 19)[13] They are still of crucial interest for concerned local economies particularly for sustaining employment. However, sustainability of ship-building labour force is questionable. Shipyards are facing chronic shortages of a number of skilled occupations. Comparatively, the wages are low. Among 174 surveyed direct production workers from five shipyards, 68% think that their wages are inappropriate for the work in difficult and risky working conditions, 'with each worker getting around thirty hours a month on average' of the overtime work. This has two major effects: (1.) emigration to foreign shipyards of skilled workers, and (2.) low enrolment into vocational high schools offering education for occupations in shipbuilding. (IOM study, Skupnjak-Kapić et al. 2006) It seems that low is credibility (in eyes of students and parents) that this recovery is sustainable in the long-term. This is leading towards greater pressure to: (3.) *import workers from abroad* (mostly from BiH, Ukraine and Slovakia) in parallel to emigration (mostly to Italy), and (4.) to organise *costly training within the firms*, through retraining and additional training. (More details in Skupnjak-Kapić et al. 2006).

3.1.1 Shipyard ABC

Shipyard ABC was established by the beginnings of the 20th century in the region with a long shipbuilding tradition. It was fundamental to the local community industrialisation and major provider of industrial employment. The workforce (including subcontractors) reflects high embeddedness in local community: about 80% is from the local area (50% for subcontractors) and most were born there too. (EFST, 2006) The production program includes product and chemical tankers, floating docks, cargo ships, passenger vessels etc. The orders book is full until 2009. While it has made the best relative upgrade in performance over the 2002-2005 period (WB, 2006a), there is still a considerable technological gap: production process is (at best) twice longer than in leading EU or Asian shipyards; delivery period is too long; there are delays coupled with paying penalties; considerable and chronic are losses. The auditors'

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[13] *Jutarnji list*, 29.1.2007. gives much lower number for subcontractors' workers employed at shipyard sites: 4630)

yearly conclusion in audits performed in the 2002-2004 period was always the same: *ABC is not viable and its long-term business operations are very uncertain*. ABC is fully dependent on the state covering losses and providing guarantees and subsidies. Restoring viability of ABC, and the management firmly believes that ABC may become competitive, depends on internal changes (through restructuring) and on external support in achieving long-term goals. In this process continuing government's financial support and guarantees are needed, in order to avoid bankruptcy.

Restructuring activities envisaged at ABC include: (1.) ongoing necessary primary interventions to stop or attenuate negative trends, reducing costs, keeping key personnel in the firm, increasing motivation; and (2.) Integral Development Plan. The second is the long-term one and includes total re-engineering resulting with radical changes – technological, organisational, and spatial. An overall aim is: a 'compact shipyard' witch can respond shortly to the changes of the market due to flexible production technology and organization. This involves introducing flexible manufacturing system, lean production, JIT; focusing on core competencies; production of handysize tankers, but new ship types have to be developed; diversification into new activities; optimising quality and number of employees; and changing spatial structure: with reduced necessary space for shipbuilding (yet with higher output – 4 ships a year in one shift) additional space is created for conversion into new profitable activities (nautical tourism; small boats/yacht service and production). During February 2006 IDP activity and structure of projects and teams around it have 'kicked off' – whole project should be finished by the late autumn and thus provide management with the basis to pursue reengineering activities in which included will be other stakeholders (government and local community in particular). Foreign consultancy and cooperation with the local university is also part of the IPD.

The management's optimism, based on the fact that current assortment –handysize tankers with 47000 tdw as a main product- has a good reputation and market perspective, was contested by USAID experts (2006a), whose opinion is attached to the World Bank's social impact study (WB, 2006b).

3.1.1.1 Employment trends and structure

From 1960s on, the average number of employed was growing. With 1990s significant reduction of employment stepped in, reaching its minimum in 1998, after which some recovery in employment has happened – to stay close to 1300 from 2002 on. Particularly dramatic was a drop in the number of direct workers: from 1472 in 1989 to 1000 in 1992 and 330 in 1995 (to recover somewhat - around 500 in 2001-2004): the consequences of this drop are still being felt (Matko).

Table 5: Employment at ABC 1960-2006

1960	1970	1980	1985	1989	1990	1995	1998	2000	2001	2002	2003	2004	2006 on Dec. 31
978	1978	2220	2625	*2779*	2646	1559	*1090*	1102	1180	1294	1308	1285	1265

ABC has high subcontracting level: between 54 and 60% of total EMHs of shipyards' employees and subcontractors in the 2002-2005 period. (WB, 2006a). In the labour force *dominate men* (86%); those *with middle education* (qualified workers and secondary school) - 51%; while highly qualified workers and those with higher schools and university degrees

make 30.1%. Most are performing some *direct non-managerial operations* (86%). Particularly worrisome is *the age structure*: it may be a problem to re-staff the firm with some 15% to retire in next 5 years and more than 30% until 2015. Most are older than 40 (65%; older than 50 is 33%, but younger than 35 is 25% and younger than 25 is 5.1% only). A long-term program of permanent education, additional qualification, re-qualification and taking care of technological surpluses is needed (Program, 2005; Studija, 2006). While ABC strongly feels lack of good employees in key occupations, future supply on the labour market does not look bright either – numbers of students in ship-engineering or at middle school programmes interesting for ABC, including local school, is far below of needs. While still strong, traditional link between local community and ABC is weakening – younger generations are less attached to ABC. (EFST, 2006)

What restructuring plans bring for employees? Certainly, some reduction in labour force (some 10% by 2009), and changed structure: growth of productive workers by 22.2% and reduction in non-productive by 28.9%. However, this should be achieved by natural flows (i.e. regular retirement), externalisation of some activities, and diversification into new activities, like service centre for small boats and yachts. In my interviews [14] at ABC, of primary importance were issues related to employees and their perspectives; focus was on those which are at highest risks of losing job, or changing their contractual status to the less favourable one. Due to the threat of bankruptcy and closing-down the operations, I was interested also about employees' perception of that risk, and readiness for necessary changes.

3.1.1.2 Conditions of employment

Permanent employment has been typical for ABC. On 27 March 2006, out of 1281 workers, only 89 were employed on the fixed time contract. However, their number and share is growing, because *almost all new employees are on fixed time contract*. Mostly they receive renewal, and some receive offer for permanent employment (Mirta). *Additional flexibility is achieved by heavy reliance on cooperation*. Subcontractors' workers are better paid, but less protected, and 'more exploited', says Stipe – some workers leave ABC and take a job with cooperating firms. It seems that it will be more of this in the future. Management favours *greater flexibility* – it must be possible to hire and fire daily. (Matko) Mirta believes that *firing regulations* are not a barrier: 'it can be done, however foremen are not willing to confront workers' which are too often their neighbours or friends - this is a small town, she adds.

Wages at ABC are considered low in general (Niko), and particularly for those directly involved in production (e.g. for engineers and direct workers, says Ivo; they are between 3000-3400 kn for qualified and highly qualified workers – Niko). However, wages are being paid timely. All interviewees find *the system of pay as not motivating*, bonuses not well defined and even worse applied – leading to too small differences between good and bad workers (Stipe), as well as leading to too much of overtime.

Over-time is regular practice at ABC, as it seems to be in all shipyards. In words of Ivo: 'there is too much of it', and one of the main objectives of restructuring is to get rid of it. However, it may be difficult: it is 'social category' (Niko) and the main source of pay

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[14] Interviewees **on March, 27.2006**: Mirta – Director of personnel; Niko – Independent Union representative; Stipe – Metal Workers Trade Union representative; Luka – Managing Safety of work department; Ivo – President of Workers Council; Marko – Project manager, R&D Department.

differentiation: 'wages differ only if you work longer' (Ivo) Reducing it will be difficult, because *incentives for over-time are deeply built into ABC*, including economising on effort in regular time ('to work as little but as longer as possible', Matko), so that over-time is made necessary (Matko and Niko). As Stipe put it: 'with a regular pay only one can't make it'. He agrees that with better organisation such an amount of overtime would be unnecessary. This is consistent with findings in some other firms I visited – overtime typically accompanies serious organisational deficits.

Risk of retirement. Due to very low pensions that employees, even with full benefits, can expect there has been in last years great reluctance by older employees to accept early retirement, even if it would benefit their health compromised by heavy working conditions. Due to pronounced decrease of average pensions compared to average wages in Croatia, increased are risks particularly for low waged workers: 'poverty is their greatest risk' (Mirta), 'there is fear of low pensions' (Stipe).

3.1.1.3 Conditions of work

Conditions of work for most of direct workers can be simply described as 'very difficult', and often, as 'very risky'. Both Niko and Stipe describe the construction site as 'mine (pit)'; workers are often exposed to adverse weather conditions (due to cold northern winds in winter, and extreme heat in summer). Yet, they 'accept it' as something normal (Niko). About 300 workers enjoy work-time benefits due to exposure to most adverse conditions, while older workers are normally 'transferred to easier jobs' (Stipe)

It doesn't seem that *intensity and work-related stress* are major problems at ABC. When I asked Stipe about workers' complaints, the answer was: 'no, they don't complain about stress and intensity'. Stress is disguised as '*inability to attain one's goals*' – when it comes to children expectations, coping with family expenses. However, with restructuring, an increased pressure on employees' performance can be expected. Yet, *some among my interviewees feel high stress*. For example Matko, who is fully involved in restructuring projects: 'stress is enormous, as is my heart-beat', but 'satisfaction too…this is the best project in my life, it pushes me, and I believe that it may work'. Or Luka, since he has become manager of safety department he feels an increased stress: 'I've got to balance' (between requirements of safety and requirements of performance).

One particular source of stress is *uncertainty concerning the ABC future*: workers are afraid of losing their jobs if ABC is closed , 'it is a topic in the town' (Niko). Yet, some think that workers are not fully aware how imminent this might be: 'workers underestimate a danger', they believe that it will always be as it was: 'it has been dying for 40 years…so it will continue…' (Matko). 'Many don't realise that breakdown is possible…yet, they have loans to repay, and it is in their subconsciousness' (Niko).

Safety at work. ABC belongs to industries with injury and death risks highly above the average. In IOM study 174 direct workers from five shipyards and their subcontractors (including ABC): report (1.) that majority of them have been injured at work in domestic shipyards (55%) and some 24% don't feel safe when doing everyday job and (2.) interviews with labour migrants indicate better working conditions in foreign shipyards' – 61% evaluated them as 'better' or 'much better', and only 7.2% as 'worse'. One should expect, therefore, that safety is the top priority in the ABC. According to Luka, since 2005 managing work-safety department, after 1985 there was a positive trend, with more regulation and care being taken.

Yet, with 1990s, considerable reversal started. There were unregistered workers on the firm's location, not educated for safe work, there was little of control – 'cooperating firms were major problem' in that respect. After 2002 there is a decrease in numbers of injuries:

Table 6: Injuries in ABC

	2000	2001	2002	2003	2004	2005
No. of employees	1120	1280	1292	1315	1259	1120
No. of injuries	75	100	110	102	88	81
%	6,69	7,94	8,36	7,89	6,87	6,39

Coincidence of shock caused by a tragic death of four workers inside the ship in November 2004, and the new management being appointed some time before that – has certainly contributed to much greater importance being given to work-safety. For example, in May 2005 all foremen were punished with 15% being taken off their wages because workers were not using safety equipment (glasses) – 'including me' (Luka). However, it didn't make a big difference, because 'persistence' is lacking. *Major problems are foremen*: 'they are still the weakest point'. After being trained: 'they are now responsible, but it didn't settle in their heads' (Luka). However, Stipe (he works as a foreman) believes that foremen are less prone to 'weight' between having the job done and enforcing safety regulations than before. Both agree that a lot of improvement is possible through education and training and better organisation. Subcontractors are major issue – often employing not well- trained people (' a cook who became a welder just with a short course', Luka)

3.1.1.4 Education and training

There is no department at ABC which has education as its major task; there is no planned and systematic following and measuring of human potentials; there is no developed HRM – yet, structure and quality of those currently employed is considered as not too good (Matko). Some professional training is made in ABC, e.g. in informatics, and there is some cooperation with Croatian Employment Agency (and its local branch) concerning re-qualification of unemployed. There is industrial school in the town, which used to school qualified workers for ABC – however, there has been dramatic decrease of interest among young to learn for jobs needed at ABC. Matko is particularly aware of importance of building HRM in ABC and points to the irony that sociologist and psychologist (both with a university degree) are employed at some administrative jobs; 'people in the firm don't educate themselves' he complains. It is necessary to manage the process of workforce reduction, in order to prevent 'loss of intellectual capital'. He also complained about likely deficits in skilled workers and engineers as potential barriers to restructuring.

3.1.1.5 Social dialogue

ABC is still highly unionised. There are two unions: one (Trade Union of Metal Workers) evolved from the 'old' socialist one and has 610 members (four years ago – 550); another (Independent Union) has 230 members. Stipe is a TUMW representative at ABC – he believes that increase in membership should be attributed to union's good work and closeness to workers. Stipe finds cooperation with the IU as 'satisfactory, which wasn't the case before'.

IU's origin belongs to the early 1990s 'when unions were going apart as were going the worldviews'. However, with normalisation in Croatia, political aspect has become marginal – and workers' interests – central. (Niko) With this, both agree, unions' co-operation was greatly facilitated and 'common unions platform' concerning restructuring is in the making, both on the firm level and on the national level: 'fighting for each working place' (Niko).

They both find that 'social dialogue' at ABC has recently improved, 'we are informed' (Stipe). And this is due (a.) to their improved cooperation, but also (b.) to management's awareness that social partner is necessary in the processes of restructuring. In talks on new collective agreement unions are going to ask for (a.) severance pay, (b.) re-qualification programs, and (c.) an ESOP program to be part of the privatisation.

Workers Council was formed one year ago – after three years of failures 'due to politicising' (Ivo). In spite of being union's member, Ivo is not satisfied: 'I expected faster and better resolution of workers' problems' (including low pay, system of pay). But he is also proud of some achievements: 'WC became visible', workers are coming for advice, and he believes that 'small improvements' may greatly matter (e.g. improving culture of work). Cooperation with the ABC management is satisfactory – director shows respect for WC.

3.1.1.6. Those at risk and opposing views

If ABC fails to restructure, *all employees are at risk of losing their jobs*, including those working for cooperating firms. EFST (2006) study points to considerable multiplier effects on total employment on the national level if ABC is shut-down. Hopes at ABC are high that restructuring may be done. Says STIPE: 'I believe in the ABC's future, but not such as it is now….. Due to 'natural evolution' (retirement – some 150 in next three years, Stipe) and reallocation of employees in new jobs/activities, 'there is no reason to fear that a number of jobs at ABC will be reduced' (firm's CEO for a newspaper). Presently when 2000 (with cooperating workers) are making 2 ships a year, than 1000 is surplus; if productivity is increased to 4 ships a year, than 2000 can remain, yet in the shipyard itself major reduction of work-force is expected.(Matko)

However, even if the above is true, *some workers are at greater risks*. These are particularly those belonging to *non-core activities*: security, cleaning and firemen – altogether more than 80. Ivo thinks that it will be hard to give them maximal protection. Stipe joins: 'they cannot lose jobs, but they certainly go at less secure position'. Niko finds that at particular risk are *women with 20-25 years of experience*, working administrative and similar jobs. Possible surpluses in other departments will primarily, it is hoped, be resolved through re-qualification (Mirta). This includes going back to one's true qualification (replaced by more comfortable job). This is an ongoing process: in the room where I was running my interviews, until recently were seated a couple of women who were relocated to production, according to their formally received education.

In all this, '*social aspect will be very strong*' (Mirta), 'it is being calculated' (Ivo) It is quite understandable if one knows that in the town only close to 1000 persons were receiving wages from ABC in 2005 (636 directly, 343 through cooperating firms)(EFST, 2006) – and this is about half of the town's number of households. (Matko). Some 80% of those employed at ABC workers and 50% at subcontractors live in the local area – and most were born there. (EFST, 2006) Breaking the mentality of taking ABC as a 'social institution which provides

for the people' may be too hard in a town 'where all are from the same street'. (Matko)[15]
Managing human side of restructuring will surely be the hardest part of all. However, *window of opportunity will not be opened for long* – it may be open as long as current boom on the world market for ships lasts. This understanding is not as wide as might be needed! In the recent *World Bank's social impact study* respondents from ABC (two shipyards were analysed), while accepting restructuring as certainly or probably necessary (72.8%), associate it with 'investments in new technology and infrastructure' (58.1%) and only 8.8% with loss of jobs. On the other hand, the main trust of the study is less based on achieving sustainability through restructuring and natural evolution of labour force, but rather on closing down unprofitable operations, thus creating labour surpluses and relocating workers to other jobs/activities/firms. (WB, 2006b).

Optimistic picture is offered concerning workers' adaptability and prospects of finding new jobs: some 65% of ABC employees (75% for subcontractors) believe that their capabilities and experience would help them in finding new job. While older workers are less optimistic (out of those who judge their capabilities as inadequate, 43% explain it by being too old), workers with experience of holding other job(s) are more optimistic concerning their current capabilities (about 84%). However, it is not clear how workers would have judged their chances to get the one, if asked. Proportion of those who never held a job in another firm is very high – 64%. Also, majority of employees is not willing to relocate (about 75%). *Concerning new employment opportunities*, the study relies on USAID document which is optimistic concerning new job creation (some 800 new jobs) in two neighbouring business zones (yet, without data on the sorts of activities and jobs, except for one zone – 50km away – where demand for metal workers is expected to grow). In addition, small shipbuilding and maintenance of small ships and yachts is expected to generate new jobs. (USAID, 2006b)

Sustainability of ABC's labour force is judged low. Firstly, employees find public sector employment as most desirable (53.0 for ABC and 36.5 for subcontractors). However in both groups shipbuilding is the strong second (24.4 and 20.9) with much higher shares than in another shipyard (10.6 and 3.0) and reported satisfaction is very high (16.6 are 'very satisfied' and next 54.4 are 'satisfied'; for subcontractors 13.9 and 57.4). *Secondly*, most respondents would not like their children to work in shipbuilding and don't think that their children will work in the industry (summary of the study). Yet, I am not sure that proper weight was given to acknowledged fact that ABC offers very different picture from another shipyard. Namely, 48.5% of general population, 67.3% of ABC's employees and 47.8% of subcontractors' employees gave an affirmative answer to the question if they have parent or relatives who work (or worked) in shipbuilding (25.0%; 42.0% and 27.7% for another). Percentages of those who would like their children to work in shipbuilding are not really so low in ABC (40.1% vs. 13.5% in another shipyard) – they are much lower for general population (17.8 %) and subcontractors' employees (20.9). Neither percentages of those who were affirmative on the question if their child would like to work at shipyard are low (according to presented graph percentages are more than 45% for ABC's workers, more than 30% for subcontractors' and around 15% for general; respective numbers for another shipyard are much lower). *Generational shift from shipbuilding* is certainly present, but in ABC case it does not seem to be so dramatic to grant a too pessimistic conclusion. *Shipbuilding is still, in spite of adverse conditions, deeply embedded in the social fabric of the ABC and town*. Yet, according to EFST study, while 75% of surveyed employees believe that ABC will be central for local

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[15] The town's budget is highly dependent on employed income taxes too (about 17% from ABC and 27% if subcontractors are included – EFST, 2006)

economy in the future too, it is much less for those living nearby (25%) or in the historic centre (50%).

Interestingly, while a great majority is aware of government's plans to restructure the shipyards and of the need to restructure they associate it primarily with modernisation; very low is share of those who associate it with *privatisation* (7.8% in ABC and 6.1% in general population of the town). More than that, employees from the ABC strongly favour status quo (state ownership – 52.5%) or employees' ownership (20.3). *Increasing public's information on all dimensions involved in restructuring* (including possible loss of jobs and privatisation, but different options too) is necessary rightly concludes the WB study (WB, 2006b)

With such diverging preferences, with high stakes in ABC's future of its management and employees but of local community too – *the politics of restructuring* might easily come to the centre with a lot of contestation. Particularly taking into account that (1.) optimism on relocation of labour force does not seem to be well founded, especially for older workers; (2.) that the WB study, including USAID documents, clearly questions the viability of ABC (including the outlines of restructuring program being developed by its management) and ask the Government 'to consider whether investment in the Croatian shipbuilding industry is desirable or whether available funds should be channelled to specific yards to bring them to "state of the art" at the expense of withholding investment in other yards' and 'to give consideration to alternative economic strategies of the current shipyard sites and for the benefit of the local town communities' (USAID, 2006a). While this certainly gives support to those eying the ABC site for tourist investment (and commitment of local political leaders but of population too[16] to ABC is not universal), it is also true that such a solution (unavoidable if the government decides not to subsidise ABC in the future) will be strongly contested: not only for economic reasons but also for social, emotional and historical ones. Bonds of ABC workers and, at somewhat smaller extent, towns' citizens with ABC are strong and multiple, probably beyond cold rational reasoning of those experts who are seeing ABC's presence as something which 'continually detracts from the tourist/residential development potential' of the area. Thus, one is for certain: abilities and capacities of stakeholders for social dialogue will be at great test – on firm, town and national level. If January 2007 government's decision on supporting sanation and restructuring of shipyards is bringing some hope for ABC, the outcome is still highly uncertain.

4. IN CONCLUSION

In many respects *trends of 'normalisation'* of labour markets and work have set in the 2000s – including decrease in unemployment and, however – very modest, increase in employment[17]. This was supported by political normalisation, solid economic growth, and growing credibility, coupled with associated conditionalities of the EU integration. This last factor will be important in coming years too. On the other hand, increased flexibility of labour markets,

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[16] In EFST (2006) study highly diverging are perceptions concerning the (negative) impact of ABC's present location on tourism – between surveyed ABC employees and citizens living nearby and/or in the historic centre: 62% from the first group find it appropriate; 75%/50% from other two groups find in inappropriate and with negative impact on tourism.

[17] Low job creation indicates to entrepreneurship deficits and barriers, and certainly is one of the major issues for Croatian economy and government's policies. (see Rutkowski and Scarpetta, 2005; Franicevic, 2006).

diversification of employment statuses and growth of private sector employment are reducing proportion of well protected workers[18]. And, as pointed earlier – even those 'well protected' might easily find their position *vulnerable to various institutional and structural risks*. In the face of such 'hard realities', including strong pressures for further flexibilisation of labour markets but low credibility of law enforcement, trade *unions' role* might be critical in defending against, reducing and coping with multiple risks employees are exposed to. However, unions' reach and capacities are (i.) decreasing and (ii) constrained to particular firms/industries/sectors. Trade union movement is considered as 'weak and fragmented', and not stabilised yet. (Bocksteins and Vermuijten, 2005) Pronounced has been change in membership and members' relocations between national confederations; recently formation of new federation was announced.[19]

Unions' density is decreasing, but much more slowly than in the 1990s: it is about 40% in 2005 (author's estimate based on the total number of employees, but some give higher share – even 45%, OSP, 2006; reliable data don't exist). In 1990-91 membership rate was 60-70% and 47% in 2000 (according to Petrović, 2002). Employed in SMEs; those on temporary contracts are quite unlikely to become unions members – and their share, together with self-employed is growing. In many firms unionisation is discouraged[20], while unions haven't been successful or active enough in extending their membership base. Unions are more focused on protecting rights of permanently employed workers in large unionised firms/sectors, than of specific vulnerable groups (e.g. young, minorities, those on temporary contracts...or

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[18] *Paid employment* still dominates in Croatia, but the share of *self-employment is growing*: from 17.6% in 2000 to 22.3% in 2005 (CBS LFS, 2nd half). *The share of private sector employment is also increasing* (from 63% in 2002 to 67.8% in 2005) (CBS LFS, second half) In parallel to this *there has been a relocation of employment towards small and medium-size firms*. Most new jobs – with less security for employees – have been created in SMEs. However, in the 2000s large firms' share in active enterprises' employment is increasing: from 42.1% in 2000 it reached 47.1 in 2003 and 48.1% in 2005; small firms' share peaked in 2000 (36.6%) to decrease to 33% in 2003 and 32.3% in 2005 (FINA data). If crafts and cooperatives are added (with an increase in employment from 205,000 in 2000 to 258,000 in 2005), then the share of SMEs in total employment has stabilised in recent years at around 64%. Such trends, coupled with more stringent regulations for larger firms, have certainly contributed to a slowing down of the increase in non-standard work in the last couple of years. Between 2000 and 2005 there was an increase in temporary employment and a fall in permanent employment, but uneven and modest (permanent contracts' share decreased from 90.5% in 2000 to 87.5% in 2002 to remain at 87,9% in 2005, CBS LFS). In the last three years there has been very little change. In legal entities only, in March 2005, 87.2% (88.7% in 2002) were working on the basis of permanent contracts), 12.1% on fixed-term contracts (10.5% in 2002) and 0.7% were trainees (0.8% in 2002)(CBS, *SR 1307* 2006 and *SY*, 2003) However, this picture may be deceptive: (i) the share of fixed-term contracts has increased from 6.6 in 2002 to 10.1 in 2005 (primarily at the expense of short-term ones, CBS LFS); (ii) the share of permanent contracts in legal entities is slowly declining; (iii) the share of 1–6 month contracts has increased (from 39.5% in 2000 to 58% in 2005, CBS LFS), particularly 1–3 month fixed contracts (from 20.4% in 2000 to 31.5% in 2005), leading to increased numbers of persons moving back and forth between temporary jobs and unemployment (Crnković-Pozaić, 2005); (iv) among new job openings fixed-term contracts increasingly dominate: in 2005, 141,000 were employed from the unemployment register , 85.6% fixed-term (in 2004, 83.4%; in 2001, 80.0%; and in 1997, about 50%) (CES data); (v) *young people are particularly exposed to non-standard employment*. While for workers 25+ the standard form of employment is still permanent – 90.8% in 2005 – some 39% of young people were on temporary contracts (30% on fixed ones) (CBS, LFS 2nd half).

[19] In 2000 five nationally representative confederations had 440.1 and in 2004 – 436.7 thousands members. Together with sixth confederation which in 2004 fulfilled representativity criteria too – it makes 456.8. Total unions' membership may be estimated at 500 thousands presently. Union of Autonomous Trade Unions of Croatia (SSSH/UATUC) – 211; Croatian Association of Trade Unions (HUS) - 36; the Association of Croatian Public Sector Unions (MHSJS) - 50; Independent Trade Unions of Croatia (NHS/ITUC) - 87; Workers' Trade Union Association of Croatia (URSH/WTUAC) - 52, and UNI-CRO (Trade Union of Services) – 20 thousands members (in 2004 Representativity calculation)

[20] A not-published case on major international retail chain illustrates deliberate management's attempts to strengthen Employees Council against trade union.

unemployed). Out of their reach remaining are many workers and firms, particularly smaller ones. However, and in spite of many weaknesses, unions certainly affected and contributed to the evolution of labour regulations, pushing the government to compromises thus preventing more radical flexibilisation of work relations, as employers but foreign advisors often asked for (this is typical of the present Labour Law). Secondly, they influenced public, including political actors, and made it more sensitive on numerous issues concerning protection of workers material rights, working time (Sunday and black work, for example), wage security and other. Thirdly, in highly unionised firms and sectors they established themselves, sometimes quite successfully, often just formally, as legitimate party in restructuring and privatisation processes.. Even if it can plausibly be argued that unions' impact on working conditions has been limited, it certainly has been – important. As it will be in coming talks on changes to the Labour Law (related to the EU association processes) where employers and unions starting agendas on a number of issues are strongly confronted. – employers asking for further flexibilisation of employment, easing dismissals and reducing participation obligations (e.g. by extending small firm definition to 50), while unions are focused on increasing limits on fixed-time and overtime, on extending material and participation rights (e.g. by reducing small firm definition to 10) (*Vjesnik*, 23. 10. 2006.)

Certainly, strong institutional deficits and structural uncertainties are putting all actors and institutions of social dialogue at test. However, *firm-based social dialogue and collective bargaining dominate, while (importantly) the sectoral one is underdeveloped.* Presently, 100 collective agreements (CAs) are 'in force'; out of this 17 are sectoral ones but only 7 in competitive sector while 10 are in public sector. Some 90% of all registered CAs are the firms' ones. (OSP, 2006). Registered of CAs is increasing: in 2000 – 30, 2002 – 46, 2004 – 44, and in 2005 – 57. (OSP, 2006) With such encouraging trends, *CAs coverage is still modest* – at somewhat less than 50%. In the private sector only it is even less[21]; bearing in mind that out of seven existing sectoral CAs in private sector, even six were extended to the whole sector by the relevant ministry's decision (e.g. construction, commerce, hotels and restaurants...). Recently, unions are becoming more interested in sectoral social dialogue; opened are sectoral negotiations in a couple of sectors (e.g. metal and electro, textile and leather industry ...) (OSP, 2006)

Problematic is CAs enforcement too: 'implementation ... is rather weak, with surveillance and enforcement mechanisms underdeveloped'.(ILO, 2004, 34) Mechanisms for dispute resolution are underdeveloped but first important steps were made by Office for Social Partnership. Since 2003 increasing is the number of conflicts over CAs followed by peaceful resolutions proceedings: 31 in 2003; 106 in 2004; and 105 in 2005 (60 successfully). (OSP, 2006)

Effective social dialogue is still underdeveloped. It is the strongest when the state, as majority owner, is forced to pursue restructuring and privatisation in firms with strong unions, and when unions' cooperation is necessary if radicalisation and heavy conflict will be avoided in advance. (e.g. shipyards or Croatian Railways, but recently unions voiced complaints about being by-passed in newest shipyards' restructuring plans (January, 2007). In private sector, such situations are less frequent, but ex post conflict resolution may bring two sides at the table (as some recent cases show).

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[21] URSH's president, arguing for re-introduction of national collective agreement, claimed that some 772 thousand workers were not covered by CAs (*Novi List, 12.10.2005*)

As this paper pointed, *besides institutional vulnerabilities*, strong are *structural vulnerabilities* too. They are hard to deal with, particularly concerning further industrial reorganisation under globalisation pressures (including EU integration too). If this points to increasing pressures on further flexibilisation and diversification of working conditions, it will depend on political, administrative and wider society capacities to broaden the agenda of security. While *'flexicurity'* concept is slowly entering on the scene, the actors don't seem to be aware of its true implications for politics of work. Traditional reliance on the state guaranteeing highly protected employment is loosing credibility, as are unions stubbornly defending it. It would be naive to think that the EU integration can change this. In settings of increased globalisation pressures and associated risks – dealing with institutional deficits and increasing administrative and judicial capacities to protect workers rights seems to be of particular importance. And this is where the impact of the EU association processes might be of great importance. In addition, even if social dialogue between the three partners has improved in 2000s, 'involvement of other groups of civic society in social dialogue is rather small, and insufficiently developed.' (Bocksteins and Vermuijten 2005, 69) It may become important as civil society groups with legitimate stakes and claims are becoming more active and vocal (e.g. in case of asbestos production, or in the case of 'mobbing'). Tripartite framework may not be enough to deal with new demands on Croatian politics of work.

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List of Abbreviations:

CBS – Croatian Bureau of Statistics
CES – Croatian Employment Service
CHII/HZZO – Croatian Health Insurance Institute
FINA – Financial Agency

HZMO – Croatian Social Insurance Institute
HZZJZ – Croatian National Institute of Public Health
SI – State Inspectorate

MARKET POWER IN THE HUNGARIAN MILK CHAIN

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1. INTRODUCTION

The transition process in Eastern Europe was characterized by three basic elements: privatization, liberalization, and restructuring. The main intention behind the reforms was the substitution of the centrally planned economies by market coordination. Decentralized coordination was expected to implement incentive compatible decision mechanisms which in turn should allow the allocation of resource to their most beneficial uses. In addition, the improved remuneration of resources should foster economic growth and the increase of per capita income. A favourable transformation process required a basic transformation of the institutional environment within the countries. In most of the transition countries, especially those in Central Europe, these reforms have been implemented and enforced. Because of this the transition process is considered to be finished and the countries are officially classified as market economies.

However, changing the institutional environment can be regarded as a development on the "razors edge". The main reason is that the institutional innovations are not exogenous but endogenous. They are the results of long-lasting bargaining processes in which interest groups attempt to influence the institutional environment in favour of the parties they represent. As a consequence of the impact of pressure groups structures may be established that induce market failures and thus hamper the free allocation of resources according to market signals. Possible consequences are the establishing of market power through technological and institutional barriers of entry that enable interest groups to extract extraordinary rents at the costs of the transaction partners. This in turn suggests that the analysis of market results can be used to assess the success of the transition process.

Several studies have been conducted in this respect, especially in agricultural economics. Most of these use price transmission analysis to assess whether horizontal and vertical market integration exists (with regard to Central Europe see Bojnec 2002, Bakucs, Fertő 2005, Ba-

kucs et al. 2006, and Peter 2003). While symmetric price transmission can be attributed to functioning markets, the conclusion that asymmetric integration is an indication of market failure is misleading since asymmetries can also be due to lagged price responses, demand changes, technological change, outsourcing of functions and cost changes (Meyer, von Cramon – Taubadel 2004). Consequently, no definite conclusions regarding market failures are possible.

The objective of this paper is to assess market functioning by evaluating the significance of market power directly using a structural market model. Within this framework not only price but in addition quantity data will be used to assess resource allocation on markets. We will apply the approach to the development on the Hungarian milk market between 1998 and 2006 and discuss whether the institutional setting led to conditions that are consistent with a functioning market or whether frictions are present that allow some parties to appropriate the rents associated with milk production. We focus on the dairy chain for several reasons. First dairy production is an important source of farm income. Second, the Hungarian milk market was subject to policy shocks which induces significant adjustment in milk production and processing. Third, milk processing is highly concentrated and dominated by foreign capital. Forth milk prices in Hungary belong to the lowest in the new EU member states. Especially the two latter conditions might suggest the existence of considerable market power.

The paper is organized in six chapters. Following the introduction stylized fact regarding the Hungarian dairy chain are presented. The descriptions are intended to provide a first indication of the possibility of market power. Chapter 3 discusses whether the transition process in Hungary succeeded in the development of a domestic market for raw milk. This analysis provides not only first results regarding market functioning, but also motivates the deduction of the structural market model in chapter 4. In the fourth part the structural market model is derived. Chapter 5 deals with the econometric implementation of the model and the discussion of estimation results. Chapter 6 summarizes our findings and discusses their implication for policy interventions.

2. DESCRIPTION OF THE HUNGARIAN DAIRY CHAIN

2.1. Market regulations of milk and milk products[1]

The transition to a market economy and, later, the compliance with the *acquis communautaire* necessitated the adoption of new intervention methods and a legislative basis for them. In the 1990s, Hungary enacted a policy towards improving raw milk quality in so far as price support was only given to raw milk which met minimum EU quality standards. As a result, in 2003, about 95 % of all supplies to dairies met the EU-standards.

The creation of the agricultural market regime in 1993 aimed to alleviate extreme fluctuations in supply and prices of commodities and to establish a minimum guarantee for primary production. It was an indirect subsidy for the producer, but provided to processors (after 1999 for Extra quality milk only) if they paid at least the centrally-fixed target price to the farmers. The indirect subsidies were complemented by export subsidies which were needed to stabilize the domestic market. One severe problem was setting the target price for raw milk unreasonably

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[1] A description of milk market policy in Hungary can be found in Hockmann, Vőneki (2004).

high, especially in 1998-99 and in 2002-03. The government started to create the milk price without respect to the market situation, which caused a huge surplus and finally led to losses and uncertainty for market players. Moreover, since the form of subsidization was incompatible with the EU market organization for milk and milk products the system was abolished in the beginning of 2004.

A guaranteed milk price was introduced in 1996, but its extremely low level has prevented it from being effective; no intervention purchases have been, and, no institution has been designated to carry out intervention purchases. Furthermore, there have also been intervention prices (lower and upper) in force since 2000. When the market price reaches the level of either of these two, government interventions should follow in order to keep the market price within the price band – but this was never specified.

After continuing pressure from producer organizations a raw milk quota system was also introduced in 1996. Producers expected the quota to secure a safe marketing outlet for their milk. Thus the objective of introducing the quota was not to fight surpluses but to create orderly marketing. Quota applications by producers had to be based on actual supplies in the previous year, but the system allowed producers to pad their reference quantities to provide room for expansion. During EU accession negotiations, Hungary requested a national quota of 2.8 million tons of milk. However, the quotas were fixed by the Commission based on delivered production figures and direct sales between 1997 and 1999. The final national production quota amounts to 1,947,280 t of raw milk (1,782,650 t for deliveries and 164,630 t for direct sale). The EU also agreed on a "milk quota reserve" of 42,780 t that will be given to Hungary in 2006 to compensate for the expected increase in retail demand for milk that should result from a decrease in on-farm consumption. The national quota for deliveries approved by the EU could not be fulfilled in each year (Figure 1). Therefore, the quota has not been restrictive, supply capacities and demand constraints limited output growth instead.

2.2. Development of milk production and consumption

The constant decrease of the milk producer prices due to the abolishment of the national price support system in 2004 led despite rising milk yields to smaller milk production in Hungary. Only 79-83% of total production was delivered to dairy companies. This shows the great importance of direct marketing and internal consumption on farms. Moreover, the share of raw milk delivered to domestic dairy companies decreased after 2004. In 2005, 1,49 million t of raw milk was delivered to the dairy industry, by 2% less than in 2004. It is estimated that in 2006, deliveries will further decrease by approximately 12% to around 1,31 million t.
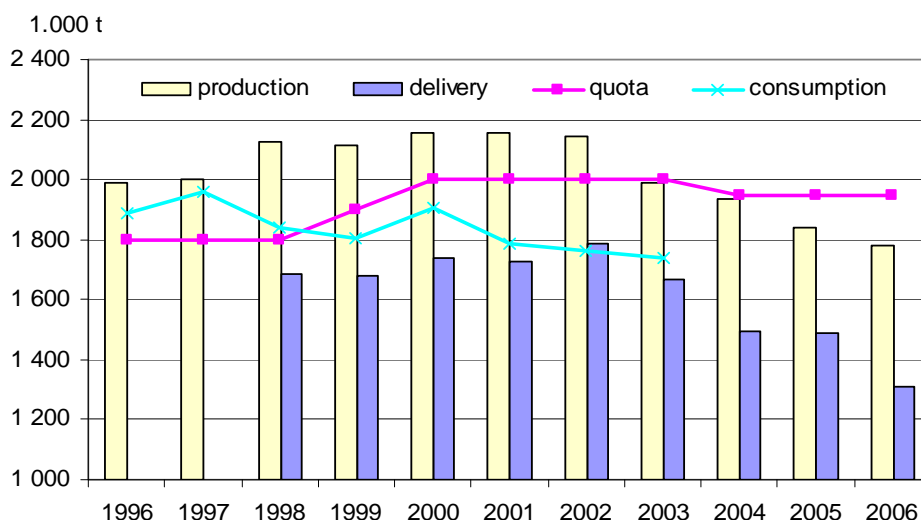
Figure 1:   Production and consumption of raw milk, Hungary, 1996/7-2005/06

Source: Tej Terméktanács, KSH – Statisztikai Évkönyv, Állatállomány

The main reason for the reduction is the dynamic increase of raw milk export to Italy. Export quantities have increased from 43,000 t in 2004 to 108.00 t in 2005. In the first half of 2006 exports to Italy amounted to already 110,000 t. At the same time, import of raw milk has also increased, mainly from Slovakia, however to a less extend. However, imported raw milk still has a marginal share on total milk processing. The consumed volume of dairy products hasn't chanced significantly in the last years. However, in the case of high value added products (especially by cheese) some increase could be observed.

2.3. Structure of milk production

Since the accession, Hungarian cow stock is decreasing continuously. Between 2003 and 2006, the number of cows has reduced by 9%, from 359.000 to 326.000. Approximately 250.000 cows were hold in enterprises with an agricultural area larger than 50 ha. The main part of the stock (223.000 animals) was hold by legal entities and less than a third of the total stock (102.000 animals) were at private firms. The decrease since 2003 was at private firms with 13% more strongly. This concentration was essentially caused by the price development for raw milk due to the abolishment of the national supports. However, the number of small producer with 1-9 cows is relative high yet, 90% of the enterprises belongs to this category. Despite of this, compared to the other member states, milk production in Hungary is concentrated. Approximately 98% of the raw milk is produced in enterprises with more than 100 cows.

2.4. Processing industry

Between 1997 and 2004, the number of milk processors in Hungary has decreased from 104 to 93. In 2004 the ten largest enterprises bought up approximately 70% of the raw milk. At present, the largest enterprise (Sole-Mizo) has a market share of 26%, followed by Friesland with 24%. While in the second half of the nineties and also at the beginning of this century the Hungarian dairy industry was dominated by foreign enterprises, this has changed slightly in recent years. The largest enterprise was bought by a Hungarian investor and also Parmalat with approximately 20% market share was taken over in the spring of 2006 by 140-150 milk

producers. The big influence of foreign companies on the Hungarian raw milk market to-gether with the extremely high concentration suggest that farmers are in a poor bargaining position and processors might be able to exploit significant market power.

Despite of low milk prices, Hungarian dairy enterprises are not competitive neither on the foreign nor on the domestic market. Due to increasing imports since accession, Hungary has become a net importer of dairy products. In 2005, export value amounted to 118 millions USD, while import value has reached 191 millions USD. Especially, the increasing proportion of imported cheap dairy products with partially insufficient quality from the neighbour countries had a negative affect on the dairy industry. Increasing import volumes were registered particularly in the categories of consumer milk and cheese. Besides the dynamic increase of raw milk deliveries to Italy, overseas sells of fruit yogurt increase, while the export of other dairy products decreased. The increase with regard to fruit yogurt can be explained with the strategy of the foreign dairy companies active in Hungary, which supply different Eastern European markets from Hungary.

3. HORIZONTAL INTEGRATION OF THE RAW MILK MARKET

Between 1995 and 2003 the target price was adjusted annually at increasing levels. During this period, the average market price for raw milk followed the target price without significant regional differences between Lowlands, Transdanubia and Northern Hungary (Figure 2). Until 2004, Hungarian milk producers received a high milk price compared with other new member states such as Poland, the Czech Republic or Slovakia. Since the accession, the situation has changed in principle. The abolishment of the national price support system in the beginning of 2004 led to decrease of the raw milk price. With 24-26 Ct/kg in 2005, Hungarian milk prices were by 5% lower than in 2004. In 2006, the decrease was 8%. As a result, Hungarian milk prices have reached the lowest level in the region in 2006. In addition, the break in 2994 has also an impact regarding price leadership. Before 2004 prices in the Lowlands were the highest. This situation changed in 2004 insofar as the prices in the Lowlands regions are now below those in Transdanubia and Northern Hungary. Moreover, all series show a significant seasonal pattern with high prices during the winter month and low prices during summer.

An analysis of market power on the national level is only meaningful, when the regional markets for raw milk are integrated. In this paper we will not provide detailed information on the results of the various estimations. Instead we will concentrate on those findings which are relevant for conclusion regarding horizontal market integration.
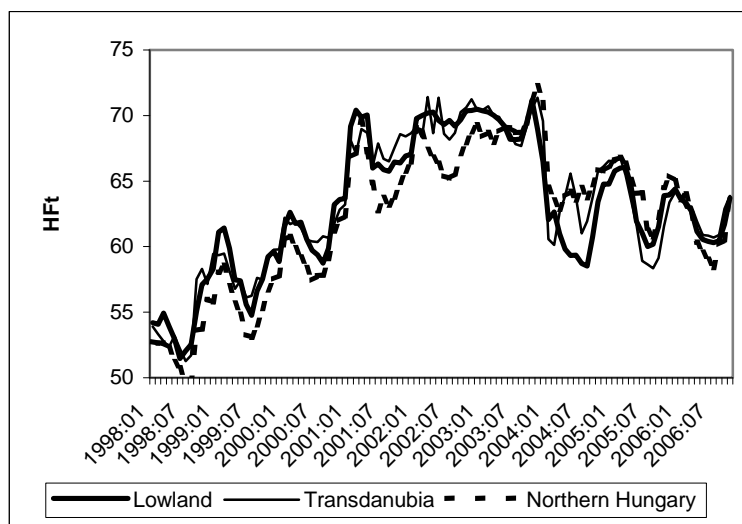
Figure 2: *Regional market prices of raw milk in Hungary, 1998-2006*

Source: AKI – PÁIR

Because of the break in the time series, we conducted the corresponding analysis for the two periods before and after the abolishment of the price support system. In a first step the seasonal patterns were removed from the series. The adjusted series were checked whether they possess unit roots. The correct identification of unit roots is pivotal for the formulation of the error correction model. Since none of the various tests for unit roots is superior under all circumstances, different test statistics were analysed. The Augmented Dickey Fuller (Fuller 1996) and the nonparametric test developed by Breitung (2002) were applied. In the first period (1998-2003) a constant and a trend variable were considered to account for the increase of prices while in the second period the trend variable was omitted. The results provide strong statistical evidence for the existence of unit roots in the series.[2]

The thereon following co-integration analysis was based on an error correction model:

$$(1) \qquad \Delta\mathbf{w}_t = \boldsymbol{\alpha} + \Pi\mathbf{w}_{t-1} + \sum_{i=1}^{\rho-1} \boldsymbol{\Gamma}_i \Delta\mathbf{w}_{t-i} + \mathbf{u}_t$$

Pairwise comparisons of the price developments in the three regions were conducted. This procedure was chosen to be able to account for a possible change in price leaderships after 2003. Estimations were conducted using the Johanson (1992) procedure. Both, the λ_{trace} as well as the λ_{max} test suggest the existence of a co-integrated relationship in all six cases. The optimal lag length (ρ) was selected using the Hannan –Quinn and the Akaike criterions and was 1 and 2, depending on the individual pairs of prices. The co-integrating relationship is represented by $\Pi\mathbf{w}_{t-1}$, with $\mathbf{w}$ the raw milk price. With co-integration and two variables the rank of Π is one, and the vector can be separated in two vectors α and β, with $\Pi = \alpha \beta$' and each with rank one. $\beta' \mathbf{w}_{t-1}$ represents the long run relationship in the model. The loading matrix α reflect the velocity of with which, after a shock, the system converges to the long-term equilibrium (Lütkepohl 2004). Moreover the statistical properties of α can be used to decide whether a variable is exogenous in the system, and thus, to determine the causal relationships among the prices. In the following we will concentrate on these results only (Figure 3).

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[2] Both procedures provide that the hypothesis of the existence of a unit root with constant and trend could not be rejected at a 5% level of significance.

1998-2003   2004-2006

significant at $\alpha = 5\%$
significant at $\alpha = 10\%$
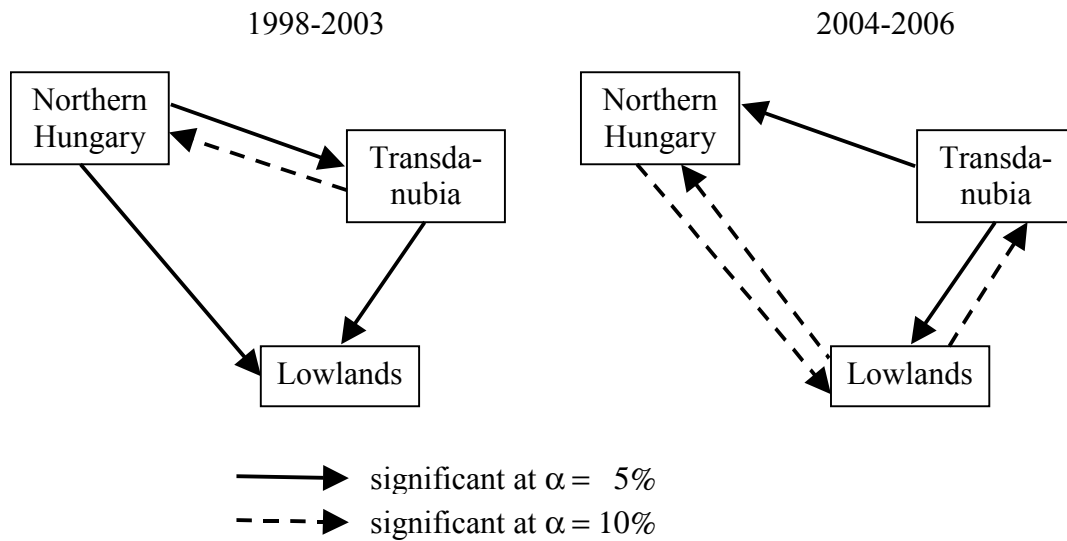
Figure 3: Relationships among regional raw milk prices in Hungary

In the first period, raw milk prices were mainly determined by Northern Hungary. After the abolishment of the price support system, the situation changed significantly, since Transdanubia has taken price leadership. However, the co-integration analyses suggest that arbitrage between the regions cannot be rejected, and moreover, that a national market for raw milk exists which in turn justifies an analysis of market power on the national level.

4. MARKET POWER: A STRUCTURAL MARKET MODEL

We follow the methodology developed by Bresnahan (1982) and Muth, Wohlgenant (1999) to test for oligopsony market power of the milk processing industry. The profit of a representative processor is given by:

(2) $\pi_i = R(\mathbf{p}, x_i, \mathbf{z}_i) - w_x \cdot x_i - \mathbf{w_z}'\mathbf{z}_i$

where **p** is a vector of dairy product prices, R(**p**, x_i, **z_i**) represents the revenue function depending in addition on raw milk demand (x_i) and other inputs (**z_i**). The symbol w is used for the corresponding factor prices. The raw milk supply function is:

(3) $x = g(w_x, \mathbf{s})$

Here, **s** is a vector of supply shifters and x is the total supply of raw milk. However, for analysing optimal demand of the processor it is more convenient to use the inverse supply function:

(3') $w_x = g^{-1}(x, \mathbf{s})$

Given (2) and (3) the first order condition for profit maximisation is:

(3) $\qquad \dfrac{\partial R(\mathbf{p}, x_i, \mathbf{z})}{\partial x_i} - w_x - \dfrac{\partial g^{-1}(x, \mathbf{s})}{\partial x} \dfrac{\partial x}{\partial x_i} x_i = 0$,

where $\partial x / \partial x_i$ represents the increase of total farm supply induced by an increase of processor i's milk demand. The first order condition can be aggregated over all n processors. After defining

$$\frac{1}{n} \sum_{i=1}^{n} \frac{\partial R(\mathbf{p}, x_i, \mathbf{z}_i)}{\partial x_i} = \frac{\partial R(\mathbf{p}, x, \mathbf{z})}{\partial x}$$

(4) can be written as:

(5) $\qquad W_x \left(1 + \dfrac{\Theta}{\varepsilon}\right) = p \dfrac{\partial R(\mathbf{p}, x, \mathbf{z})}{\partial x}$,

where $\varepsilon_x = \dfrac{\partial x}{\partial g^{-1}(x, \mathbf{s})} \dfrac{g^{-1}(x, \mathbf{s})}{x} = \dfrac{\partial x}{\partial w_x} \dfrac{w_x}{x}$ denotes the price elasticity of raw milk supply and

$\Theta = \dfrac{1}{n} \sum_{i=1}^{n} \dfrac{\partial x}{\partial x_i} \dfrac{x_i}{x}$ is the average input conjectural elasticity and captures the degree of market

power (Bresnahan 1989). The parameter range is $0 < \Theta < 1$. $\Theta = 0$ corresponds to perfect competition, while $\Theta = 1$ characterizes a monopsonistic market.

5. EMPIRICAL RESULTS

5.1. Empirical implementation

Raw milk supply was approximated by a translog functional specification in order to be able to identify relationships among the variables without imposing ex ante restrictions on economic relevant parameter (Chambers 1988):

(6) $\qquad \ln x = \alpha_0 + \alpha_x \ln w_x + \dfrac{1}{2} \alpha_{xx} (\ln w_x)^2 + \alpha_s' \ln \mathbf{s} + \dfrac{1}{2} \ln \mathbf{s}' \mathbf{A}_{ss} \ln \mathbf{s} + \ln \mathbf{s}' \mathbf{A}_{sw} \ln w_x$,

where α and $\mathbf{A}$ are parameters to be estimated. The elasticity of raw milk supply is:

(7) $\qquad \varepsilon = \dfrac{\partial \ln x}{\partial \ln w_x} = \alpha_x + \alpha_{xx} \ln w_x + \ln \mathbf{s}' C$.

The marginal product $\partial R(\mathbf{p}, x, \mathbf{z})/\partial x$ in (5) was derived from a translog approximation of the processors' revenue function:

$$\ln R(\mathbf{p}, x, \mathbf{z}) = \beta_0 + \beta_x \ln x + \frac{1}{2} b_{xx} (\ln x)^2 + \mathbf{\beta}_z' \ln \mathbf{z} + \frac{1}{2} \ln \mathbf{z}' \mathbf{B}_{zz} \ln \mathbf{z} + \ln \mathbf{z}' \mathbf{B}_{zx} \ln x$$

(8)
$$+ \mathbf{\beta}_p' \ln \mathbf{p} + \frac{1}{2} \ln \mathbf{p}' \mathbf{B}_{pp} \ln \mathbf{p} + \ln \mathbf{p}' \mathbf{B}_{px} \ln x .$$

$$+ \frac{1}{2} \ln \mathbf{p}' \mathbf{B}_{pz} \ln \mathbf{z}$$

The parameters to be estimated are **ß** and **B**. It follows:

$$(9) \qquad \frac{\partial R(\mathbf{p}, x, \mathbf{z})}{\partial x} = \frac{\partial \ln R(\mathbf{p}, x, \mathbf{z})}{\partial \ln x} \frac{R(\mathbf{p}, x, \mathbf{z})}{x} = \left(\beta_x + b_{xx} \ln x + \ln \mathbf{z}' \mathbf{B}_{zx} + \ln \mathbf{p}' \mathbf{B}_{px} \right) \frac{R(\mathbf{p}, x, \mathbf{z})}{x}$$

Substituting (7) and (8) in (5) provides:

$$(10) \qquad W_X = \frac{\left(\beta_x + b_{xx} \ln x + \ln \mathbf{z}' \mathbf{B}_{zx} + \ln \mathbf{p}' \mathbf{B}_{px} \right) \dfrac{R(\mathbf{p}, x, \mathbf{z})}{x}}{1 + \dfrac{\Theta}{\alpha_x + \alpha_{xx} \ln w_x + \ln \mathbf{s}' \mathbf{A}_{sw}}} .$$

Equations (6), (8) and (10) constitute a simultaneous nonlinear equation model. In order to allow for cross equation co-variation of the error terms a nonlinear three stage estimation procedure (NL3SLS) would be appropriate (Greene 2003). Estimating a NL3SLS requires a set of instrumental variables. We used the full set of variables as instruments. Unfortunately, we were not able to derive consistent estimate of the system that possess desirables statistical properties (Table 2). The Durbin Watson statistics suggested the existence of autocorrelation, however, because of convergence problems, we were not able to account for this problem. Alternatively, we estimated a reduced system composed of the supply function (6) and derived demand (10) (Table 3). In order to save on the number of parameters we imposed theoretically consistent homogeneity restrictions on the revenue function and the supply function[3]. The individual restrictions are not presented here but are given in the annotations of Tables 2 and 3.

5.2. Estimation results

The data set consists of 106 observations (from January 1998 to October 2006). Table 1 provides information about the variables used in the estimation. The endogenous variables (market results) are the price of raw milk and the amount of raw milk processing. Since both variables show significant seasonal patterns, the original data were adjusted using the x11 procedure (Estima 2004).

The supply shifters (**s**) consist of the prices for feeding stuff, and labour input and the number of cows. The two latter variables were subject to several kinds of adjustments. Labour input in milk production was calculated in three steps. First, total agricultural labour input was

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[3]   The revenue function is supposed to be linear homogenous of degree 1 in prices, the degree of homogeneity in prices of the supply function in 0 (Chambers 1988).

weighted by the share of milk in total agricultural output. Second, since only about 80% of the Hungarian raw milk production is processed by the dairy companies, the adjusted labour input was weighted a second time. In the third step the annual data were transformed into monthly time series. The number of cows was adjusted using the second and third step. In addition, a time trend was included to account for the impact of technological change on milk supply. Land was not considered in the analysis. Data on grassland were available, however since a large part of it is fallow and we have no detailed information on this, land would not be a scarce factor and thus, would not affect raw milk supply.

Table 1: Variable description

	Variable	Description	Mean	Standard deviation
Market results	price	Price of raw milk, Ft/kg, deflated by CPI, seasonally adjusted	44.92	5.64
	milk	Amount of processed raw milk, in 1000 t, seasonally adjusted	133.66	21.81
Supply function (s)	feed	Price of animal feed, Ft/kg, deflated by CPI	31.96	2.05
	labour	Labour input in milk production, 1000 persons, adjusted by the ratio of processed and produced milk and the share of milk on total production	12.23	7.18
	cows	Number of cows, in 1000 head, adjusted by the ratio of processed and produced milk	308.23	43.60
	time	Trend variable	53.50	30.60
Revenue function (z)	butter	Price of butter, 1000 Ft/kg, deflated by CPI	0.59	0.04
	cheese	Price of cheese, 1000 Ft/kg, deflated by CPI	0.61	0.08
	labour	Labour input in processing, in 1000 persons	9.55	1.22
	break	Dummy variable to account for the abolishment of export subsidies in 2004		
Revenue		Revenue of the dairy industry, billion Ft, deflated by CPI	11.78	1.74

The shifters of the derived demand function (**z**) include a trend variable, the prices of butter and cheese, labour input in processing. Labour input has to be transformed into a monthly series, the same hold for the industry's revenue. A dummy variable was included in the revenue function to account for the changes in milk policy in 2004. In addition, prices and values were deflated by the Consumer Price Index.

In order to ease the interpretation of the estimation results, all variables were weighted by their geometric mean. Because of this transformation, the estimates of α_x, α_s, β_x and $\boldsymbol{\beta_z}$ represent elasticities and value shares. The following paragraphs discuss the results. Instead of an in-depth discussion of the parameter estimates we will highlight some important aspects.

Table 2 provides the estimation results of the full system (6), (8) and (10). Since all parameter in (10) are already in (6) and (8), these are presented. The DW-statistics suggests the existence of autocorrelation among the residuals. As a consequence, the estimates cannot considered to be efficient, thus, the significance of the t-values have to be interpreted with care. Acceptable values for the R^2 were obtained for the revenue function only. Moreover, only some of the parameter have the expected sign. The value share of butter is positive ($\beta_{butter} > 0$), however, its supply elasticity is positive ($\beta_{butter*butter} + \beta_{butter} - (\beta_{butter})^2 < 0$). Beyond, the high value share of butter suggests that the value share for cheese is negative. An increase of milk processing affects revenues positively, and, as expected, at a decreasing rate ($\beta_{milk*milk} + \beta_{milk}$

$- (\beta_{milk})^2 < 0)$. The supply of raw milk increased with higher prices ($\alpha_{milk} > 0$). Moreover, milk supply is relatively inelastic. This is consistent with the implicit assumption that only short run supply reactions are captured. This results from using quantities of cows and labour instead of their prices as arguments in the supply function. Counterintuitive to production economic milk supply decreased with the number of cows ($\alpha_{cows} < 0$).

Table 2: Estimation results of the full system

Revenue function[1]		Supply function[2]	
Coefficient	**Estimate**	**Coefficient**	**Estimate**
β_{break}	0.08707*		
β_{time}	0.00877***	α_{time}	-0.00336***
$\beta_{time*time}$	0.54602	$\alpha_{time*time}$	0.00001**
β_{butter}	1.1853***	α_{milk}	0.23002*
β_{labour}	2.0676**	α_{labour}	0.02946
β_{milk}	0.99190***	α_{cows}	-0.51675**
$\beta_{butter*time}$	0.02128	$\alpha_{milk*time}$	0.03444***
$\beta_{labour*time}$	0.13027	$\alpha_{labour*time}$	-0.00833**
$\beta_{milk*time}$	-0.00325	$\alpha_{cows*time}$	0.07735**
$\beta_{butter*butter}$	-0.73769	$\alpha_{milk*milk}$	-0.66982
$\beta_{labour*labour}$	12.865	$\alpha_{labour*labour}$	0.04079*
$\beta_{milk*milk}$	-0.39939***	$\alpha_{cows*cows}$	6.8910**
$\beta_{butter*labour}$	3.6630	$\alpha_{milk*labour}$	-0.70730**
$\beta_{butter*milk}$	0.34076	$\alpha_{milk*cows}$	6.4706**
$\beta_{labour*milk}$	-0.16349	$\alpha_{labour*cows}$	-0.85544
Market Power	0.003180		
Durbin Watson	0.9358		1.1723
R^2	0.9028		0.4271

[1]   The homogeneity restrictions of the revenue function are $\beta_{butter} + \beta_{cheese} = 1$, $\beta_{butter*time} - \beta_{cheese*time} = 0$, $\beta_{butter*butter} - \beta_{cheese*cheese} = 0$, $\beta_{butter*butter} - \beta_{butter*cheese} = 0$, $\beta_{butter*labour} - \beta_{cheese*labour} = 0$, and $\beta_{butter*milk} - \beta_{cheese*milk} = 0$

[2]   The homogeneity restrictions of the supply function are $\alpha_{milk} + \alpha_{feed} = 0$, $\alpha_{milk*time} + \alpha_{feed*time} = 0$, $\alpha_{milk*milk} = \alpha_{feed*feed}$, $\alpha_{milk*milk} - \alpha_{milk*deed} = 0$, $\alpha_{milk*labour} + \alpha_{feed*labour} = 0$, and $\alpha_{milk*cows} = \alpha_{feed*cows}$.

*, **, *** denote significant at the 10%, 5%, and 1% level, respectively

Note: The R^2 and the DW estimated for the derived demand equation were 0.3608 and 1.1225 respectively

The estimated parameter of market power is rather small and not significant. However, given the estimation problems of the parameters of the supply and the revenue function the conclusions that market friction which lead to a shift of agricultural rents to processors lacks power. In sum, this short discussion of the results provides that the estimation of the full system does not only provide inefficient but also biased results regarding the production technologies in agriculture and in processing.

The results derived for the reduced system are provided in Table 3. Although still not satisfactory, the R^2 are higher than in Table 2. Moreover, The DW coefficients take values for which it is impossible to decide whether autocorrelation is present or not. This suggests that the results of the reduced system are more reliable that those of the full system. This impression is confirmed by the significance of the individual parameter estimates. In addition, the economic relevant parameters, values share and elasticities, have the correct signs. The parameter value of market power is larger than in the full system, and beyond, significant at the 5% level.

However, the value is still small, suggesting that market power is not a severe problem on the Hungarian milk market.

Table 3: Estimation results of the reduced system

Derived demand function[1]		Supply function[1]	
Coefficient	Estimate	Coefficient	Estimate
β_{milk}	1.0043***	α_{time}	0.001056*
$\beta_{milk*time}$	0.00099	$\alpha_{time*time}$	0.00022**
$\beta_{butter*milk}$	0.36275**	α_{milk}	0.03665*
$\beta_{labour*milk}$	0.56791*	α_{labour}	0.14960*
$\beta_{milk*milk}$	-0.35130***	α_{cows}	0.10675
		$\alpha_{milk*time}$	-0.00514***
		$\alpha_{labour*time}$	-0.00395
		$\alpha_{cows*time}$	0.01218***
		$\alpha_{milk*milk}$	0.49869***
		$\alpha_{labour*labour}$	0.04645**
		$\alpha_{cows*cows}$	13.66400***
		$\alpha_{milk*labour}$	-0.69928***
		$\alpha_{milk*cows}$	-5.39250***
		$\alpha_{labour*cows}$	0.73207
Market Power	0.00154**		
Durbin Watson	2.1063		1.3668
R^2	0.5562		0.4862

1) For the homogeneity restriction see the annotations to Table 2

*, **, *** denote significant at the 10%, 5%, and 1% level, respectively

When there is no indication of market power, the questions remains how the decrease of raw milk prices in Hungary could be explained after the abolishment of the price support system in 2004. The observed reaction can only be explained with a specific structure of the supply and demand elasticities on the raw milk market. Generally, the market side that reacts more inelastic is able to appropriate the larger part of subsidies (Wöhlken 1984). Correspondingly, the reduction of the subsidies hits the inelastic partner on the market. Thus, the strong price decrease in 2004 has a consistent interpretation as market reaction in the case when raw milk supply is inelastic and demand reacts elastically. However, this is exactly revealed by the estimates of the reduced system. Raw milk supply elasticity is about 0.036. On the other hand, demand reacts relatively elastic. Since all variables were adjusted by their geometric mean the demand elasticity is given by the inverse of $\beta_{milk*milk} + \beta_{milk} - (\beta_{milk})^2$. Since β_{milk} is about one, the price elasticity of raw milk demand is around -3.

5.3. Market power and the interpretation of Θ

The estimates suggest that market power is not a severe problem in the Hungarian dairy market. This results is surprising given the high concentration of dairy processing and the relatively low milk prices in Hungary. However, even farmers are confronted by a relatively small number of processors the latter appears not to be able to benefits from their favourable industry structure. One reason is the overcapacities in the dairy industry which led to intense competition among processors on the raw milk market. The problem of overcapacities is aggravated by the fact that farmers posses different opportunities to market their produce. They can sell to Hungarian processors, export raw milk, or market their produce directly to con-

sumers. These choices might put, on the average, Hungarian milk producers, in a relatively favourable market position which hamper the exploitation of market power by the dairy industry. In addition, the low prices for raw milk cannot be regarded as a consequence of market power but instead of the failure of the processing industry to engage in product differentiation and to position itself successively on the market for premium goods which allow higher value added and, in turn, would increase the process for the raw materials. Given this interpretation, the fact that the evidence for market power is relatively poor is a coherent estimation result.

We derived market power is derived in a conjectural variation approach. Correspondingly, the parameter can only be interpreted consistently within this framework. Alternatively to the conduct performance approach used in this paper, the existence of market power may be analysed in a collusion framework. Using a dynamic oligopoly model with collusion Corts (1999) shows that within such a setting the conjectural variation approach systematically underestimates the impact of market power on market allocation when supply shocks are not permanent.

With regard to milk production this may be a relevant problem since raw milk supply shows a seasonal pattern opposite cyclical changes of raw milk price. Thus, because supply changes are temporary underestimation may be a severe problem. However, a definite answer could only be given when the likelihood and possibilities for collusive behaviour in the dairy industry would be analysed in more detail. An alternative approach would be to examine the price – cost margins in the dairy industry directly. However, because of the lack of data, these approaches could not be pursued in this paper.

6. DISCUSSION

We motivated our analysis by the questions whether the economic and institutional reforms in Hungary provided an environment in the agri-food chain in which market allocation can develop its full benefits. In order to be able to do a detailed analysis, we restricted our analysis to the milk production and processing, one of the pivotal sectors in Hungarian agriculture. We answered the question by developing a formal model that allows conclusion regarding the functioning of market by the investigation of market results, i. e. prices and quantities exchanged.

In a first step we analysed the existence of a domestic market for raw milk by cointegration analyses. The results provide that a joint Hungarian market exists. However, the patterns of price leadership changed with the abolishment of the price support system in 2004. Given an integrated market we moved further and developed in a conjectural variation framework a structural market model allowing the identification of the significance of market power. Due to estimation problems we were not able to consider the full system, but have to rely our interpretation of a reduced system which included market demand and supply only, but not the revenue function of the processing industry. The estimation results provide that oligopsony power is significant but at a very low level. This led us conclude, that factor allocation and income distribution on the milk market might not be biased by market power. In addition, we were able to explain the large reduction of raw milk prices after the abolishment of the price support system by the structure of demand and supply elasticities. The absence of market power on the milk market is also confirmed by the fact that farmers posses alternative choices

to market their produce as there are purchases to domestic producers, export of raw milk, and direct sales of the produce. In addition, our results demonstrates that the simple look at indicators of market structure like concentration ratios may lead to misleading results because of the lacking one-to-one relationship between these indicators and the behaviour of firms on the market.

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CHALLENGES OF PRE- AND POST- ACCESSION PERIOD: THE CASE OF SLOVENIAN FOOD INDUSTRY

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1. INTRODUCTION

Accession to the European Union has triggered substantial changes in the business environment of Slovenian food processing industry which intensified restructuring processes and increased pressures to the business performance of the sector. The agro-food industrial complex is among the sectors for which EU enlargements traditionally brought radical changes in the economic environment (Tangermann and Josling, 1994). Price level and cost differences, hardly comparable production structures, but mostly disparities in types and comprehension of the agriculture policies required large adjustments and caused notable economic pressures (El-Agraa, 1994; Anderson and Tyers, 1995).

The last European Union (EU) enlargement in May 2004 involved ten countries, most of which just completed their transition to market economy, and another two countries – Bulgaria and Romania – are about to join in 2007.

The enlargement of 2004 differs from the previous ones in terms of the number of acceding countries and even more importantly in terms of the average level of economic development of the new Member States. The margin in economic prosperity is notably larger compared to any previous enlargement. These disparities bring both distinct challenges and opportunities for the new member states and for the incumbent countries of the Union (Artis et all., 2006). However, neither the scale of the last EU enlargement nor the combination of the patterns and characteristics of agriculture, food processing, and rural economies are comparable with the past enlargements (Macours and Swinnen, 1997; Herok and Lotze, 2000). Therefore, the evaluation of EU enlargement and its implications for the agro-food sectors has drawn considerable research attention.

There are several studies evaluating in a rather detailed manner the EU accession effects for the sectors of Slovenian agriculture (Erjavec et all., 1997; Bojnec and Münch, 2001; Majcen and Buehrer, 2001; Frohberg et all., 2002; Kavčič and Erjavec, 2003). Slovenian food industry has also been investigated; however focused studies are few (e.g. Erjavec and Kuhar, 2000, OECD, 2001; Kuhar 2003).

The main objective of this article is to prepare an overview of the Slovenian food industry development in the period before the Slovenian EU accession and the first year after the accession. Based on a framework of economic indicators paper tries to answer some of the most recurrent questions related to development of Slovenian food industry in the last decade. Five questions were put under the research scrutiny:

- Is food industry facing cost - price squeeze?

- Who is creaming in the food chain?

- Are the trends in international trade with food surprising?

- Has the budgetary support to the sector stimulated competitiveness?

In a strict sense, there is no research methodology applied in this paper, however economic indicators are computed according to the theoretical requirements. In economic literature, however, there is no generally accepted theoretical framework for sectoral competitiveness; similarly there is no consolidated terminological definition. The concept of competitiveness is clearly multidimensional and therefore it is difficult to deal with theoretically as well as empirically. In other words, competitiveness is a construct comprising different aspects of economic activity. Some of the leading authors (e.g. Martin et.all, 1991; Trail and da Silva, 1996; Porter, 1999; Lall, 2001) therefore suggest a composite approach specifically designed according to the focus of analysis.

The paper is structured accordingly to the elaborated five questions. Using data acquired from different sources (Statistical office, Ministry of finance, Agricultural institute, Chamber of industry and commerce) a series of economic indicators is calculated to elucidate the determinants of Slovenian food manufacturing sector development.

In the first part of the paper the situation in the sector is presented using indicators of business performance, efficiency and profitability whereas in the central part, the article tries to answer the elaborated questions and comment competitiveness determinants.

2. ECONOMIC PERFORMANCE

In Slovenia the Food, beverages and tobacco manufacturing sector represented about 1,7% of value added in GDP in 2005 and about 2,2 % in the total employment (SORS, 2005). According to the value added contribution in total manufacturing food industry is the third largest sector in Slovenia. However, in the last years the importance of food industry is declining in all macroeconomic indicators, since in the year 1995 the food industry contributed about 2,6% of Slovenian GDP.

Prior the year 2000 the industrial production of food manufacturing has mainly followed the trends of the total Slovenian industry, however in the period after the year 2000 the sector started to lag behind (Figure 1). Until the year 2003 the production volume somehow remained at the level of the year 2000, but in 2004 volume dropped for more than 7 % and in 2005 for another two percent. The index of production for total industry showed diverse trends, since in the period between 2000 and 2005 the volume increased by 16%.
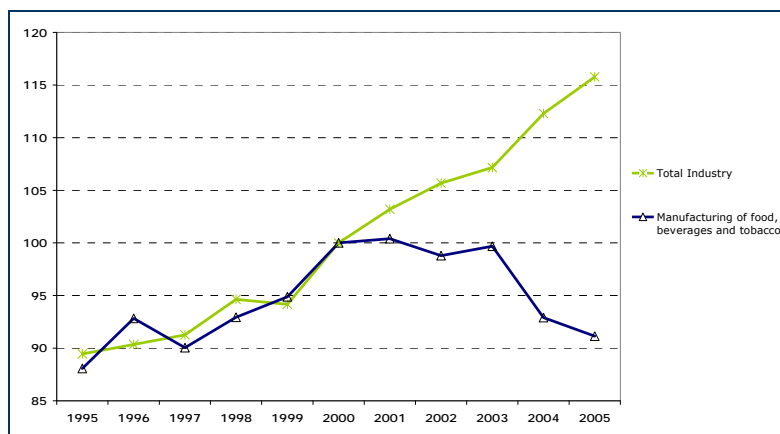
Figure 1.   Industrial production volume indices in the period 1995 - 2005 (2000 = 100).

Unfavourable conditions in business performance of Slovenian food, beverages and tobacco manufacturing are discernable also from trends in productivity (measured as revenue from sales per employee) and value added per employee. Figure 2 shows values of the two indicators for food industry expressed as an index to the average of total manufacturing. In the year 2000 food industry attained about 25 % better productivity than average manufacturing and about one fifth higher value added per employee. However, the trends in the following years were constantly negative and in the year 2004 the value added per employee in food industry fell below the average of manufacturing (index for 2005 = 97,5), whereas productivity is still slightly above the manufacturing average (2005 = 101,5). On average in 2005 an employee in Slovenian food industry created 25 thousand EUR of value added and 96 thousand EUR revenues from sales.
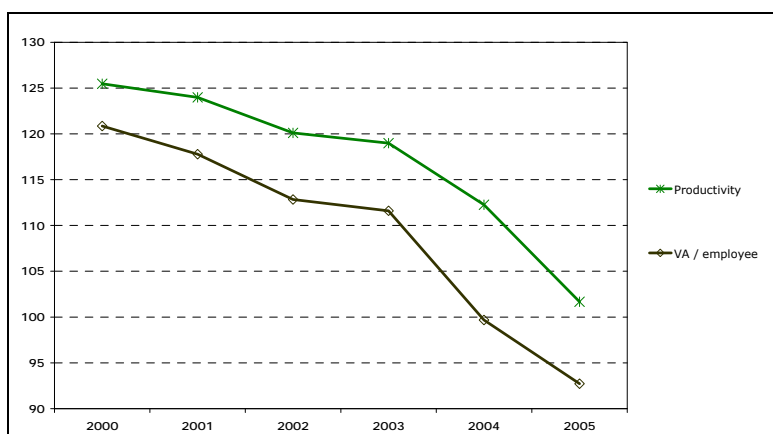
Figure 2.   Productivity and Value added per employee in the Slovenian Food, beverages and tobacco manufacturing (Total manufacturing = 100).

Consequently with worsening of productivity and value added creation, also profitability indicators have dropped, however with oscillating patterns. In 2005 average profit per employee was at around hundred EUR; however in the year earlier the sector ended with a net loss (500 EUR per employee).

Trends profitability in the period between 2000 and 2005 measured as return to sales (ROS) and return to assets (ROA) is shown in the Figure 3. Returns were very low in the year 2005,

since ROS equalled to 0, 11 and ROA was 0,07. In the same year the Slovenian manufacturing sector in average attained the following values for ROS = 3,31 whereas ROA was at 3,31.

The drop in profitability for the year 2000 and 2001 was mainly due to the changed accountancy standards; otherwise the average returns in Slovenian food industry were normally above 3 % in the last decade.
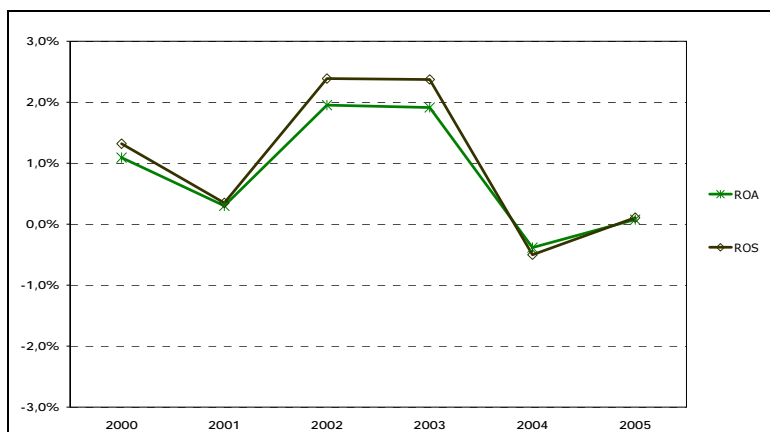
Figure 3.   *Return on assets (ROA) and Return on sales (ROS) in the Slovenian Food, beverages and tobacco manufacturing.*

The brief overview of some key indicators of business performance above shows rather apprehensive changes in Slovenian food, beverages and tobacco manufacturing sector. The sector has moved from one of the most prosperous industrial activities in Slovenia during the last decade to the average and the trends of retrogression are still evident.

What are the determinants behind these changes? In the following sections the article tries to answer this question with presenting trends in the economic environment of the food industry that might elucidate the developments.

3. EVALUATION OF SOME DETERMINANTS

3.1. Is food industry facing cost - price squeeze?

Price trend comparison at different levels of measurements reveals general information about the economic environment of an industrial sector. Figure 4 shows movements of real price indices for agricultural inputs, producer prices of food, beverages and tobacco and the corresponding price measured at the retail level in the period 2000-2005.

The most evident trend is constant agricultural inputs real price reduction. This was however expected outcome of the agricultural policy reform initiated in year 2000 as a part of the EU accession process. Market-price support measures of the agricultural policy were gradually substituted by income support measures. In comparison with year 2000 prices of agricultural commodities were lower by 15 % in real terms in 2005.

Aggregated index of Food, beverages and tobacco producer prices show, however a positive pattern. Declared prices received by producers for their supplies showing positive trends during the entire analysed period since growth constantly exceed inflation rate; in 2005 prices were higher by 2 % in comparisons with the year 2000.

Price index of food, beverages and tobacco at the retail level generally fluctuate around the inflation rate if there is no radical structural change in the economic environment. It was to a large degree the case also in Slovenia; however after the year 2004 prices started to lag behind inflation and we can notice a drop by 5 % in real terms in 2005. This might almost entirely be explained by the EU accession and inclusion of Slovenia to the internal market.
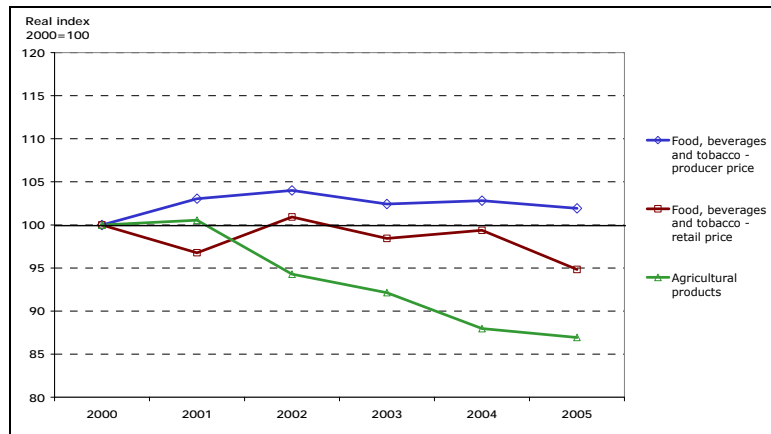
Figure 4. *Real price indices for Food, beverages and tobacco and Agricultural commodities (2000=100).*

The corresponding price parities are shown in the Figure 5 where food manufacturing producer price index is compared with price movements of agricultural inputs, energy prices and labour prices. It might be anticipated that price parity for agricultural inputs is favourable for food manufacturers; indeed the index reached 117,4 % since the year 2000. Also the relation with energy aggregate prices was favourable for food manufacturers in the first part of analysed period. However in year 2005 all price advantage has been annulled due to sharp price increase and the corresponding parity has fallen to 96,2%. If trends in labour prices are compared to the producer prices of food, beverages and tobacco the former exceeds the latter and therefore the price parity is unfavourable for producers. The parity value is decreasing constantly since 2001. Here especially labour intensive sector of food industry are negatively influenced.
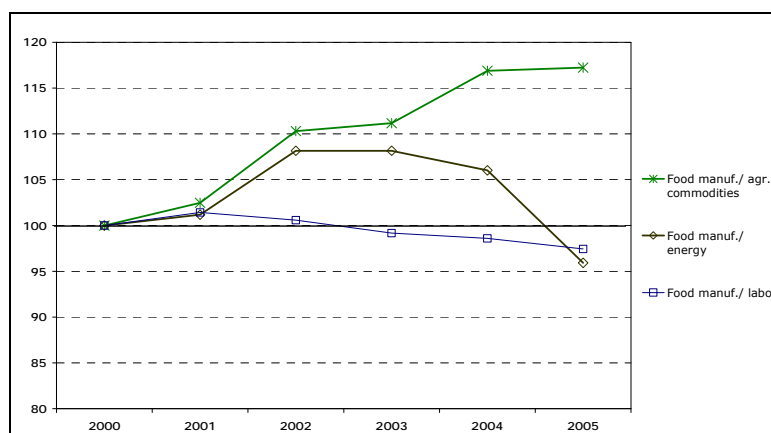
Figure 5. *Food, beverages and tobacco manufacturing price parities (2000=100).*

From the price trends and parities revealed above one can not firmly state radical cost-price squeeze for the food, beverage and tobacco manufacturers in Slovenia during the analysed period. Especially the sub-sectors with intensive agriculture input dependence (e.g. dairy, meet, bakery) could benefit form evident improvement of price parity, however this is not confirmed by business performance. A great part of potential positive price-cost development is however absorbed within the supply chain. Anecdotic evidences point out intensive vertical pressures from retailing sector in Slovenia, which will be described in some more detail below. In case of producer – retailer business conduct in Slovenia (and other economies with highly dominant retailing sector) producer price is not the final element of the transaction that determine revenues of processors. Usually a series of retrograde discounts (e.g. for marketing, internationalisation, new products) is applied by the retailers quarterly, half-yearly or annually and is not captured within statistics of producer price. Retailers are imposing many other contractual and operational practices that negatively influence suppliers. Unjustified costs are carried onto producers (e.g. access to shelf-space, micro-distribution, ullage, collection of unsold goods etc.) which deteriorate their business performance and are of benefit to retailers. The next section describes development of the Slovenian retailing sector.

3.2. Who is creaming in the Slovenian food chain?

The role and position of food retailing in agro-food chain has changed considerably in the last few decades. Food retailers are not only passive intermediates between producers and buyers but a dominant determinant that is shaping considerably the economic environment of producers and actively present in evolution of food purchasing behaviour and food use.

Due to its basic economic characteristics the food retailing is the most flexible part of the agro-food chain that is able swiftly to respond to demand changes. Modern food retailing is therefore reactive and proactive – it is capable to perceive changes in all levels; but above-all it is capable of effective stimulation and directing.

Domination of retail trade in food chain is a global phenomenon (Dobson et. al, 2003). In majority of developed economies the sector of grocery retailing has become increasingly concentrated both at national, but also globally. The sector is now dominated by a limited number of large multiple-store retailers that attract the majority of consumer spending on food. Slovenia here is no exemption and it ranges among the European economies with the highest level of concentration in food retailing sector (Juhasz and Stauder, 2005). According to Hughes (2004), the highest concentration in Europe was recorded in Norway, where the share of five leading companies was 97 % in 1999. It was only slightly lower in Luxembourg and Sweden. The values of indicator CR_5 at around 80 % were recorded in Denmark, Belgium and France, whilst in Austria, and the Netherlands it was around 75 %. The lowest degree of concentration marked Italy (CR_5 29 %), Greece and Spain, where it averaged at around 40 %. The concentration in the analysed new Member States of the EU was lower than in Slovenia. In Slovakia and Poland, the share of the leading five companies was even lower than in Italy - CR_5 below 20 %; In Hungary and Czech Republic, the concentration rate was below 60 %.

High degree of concentration is an important lever of profitability in retail sector, as in this activity the positive effects of the economies of scale are substantial. Because of the structure of costs and basic economic characteristics an increase of the scope of business is translated in an immediate growth of profits. Table 1 illustrates the effects of changed scope of business on the profitability of a retail company (taken from Fearne et al. 2001). If net margin of a

retailing company is 1 % for the value of sales of 100 units, it jumps to 26 % if the volume of sales increases by 2 %!

Table 1. Effects of sales value changes on net profit margin in food retailing (a hypothetical case)

	Case A	**Case B**
Sales value	100	102
Purchasing value of goods sold	80	81,6
Gross profit margin	20	20,4
Fixed costs	13,3	13,3
Variable costs	5,7	5,8
Net profit	1,0	1,29
Net profit margin *(profit /sales)*	1,0 %	1,26 %

Source: Fearne et all, 2001

Although this case is simplified (based on a cost structure of a French retail company), it is real enough to illustrate the mechanisms of growing market power of retailers in the process of concentration. Because of a high share of fixed costs and the characteristics of variable costs, which are as a rule disproportionately variable with the volume of revenues, the companies engaged in retailing are extremely responsive to changes of revenues from sales. Any rise in the latter leads to disproportionate change in the profitability, and the same goes for a drop in the revenues from sales!

Preparation of a profound study about retailing sector in Slovenia is beyond the scope of this article, however already a basic analysis of sectoral data reveals significant trends (Figure 6). The sector of retail trade was comprised of about 500 enterprises with more than 21 thousand employees in 2004. Turnover reached 2,8 billions EUR which is 27 % more in real terms than in 1998, which is well above the average of the Slovenian economy for the period. The food retailing sector has efficiently foregone the period of economic restructuring and introduced modern business strategies and practices, however with rather negative consecutive implications for suppliers.
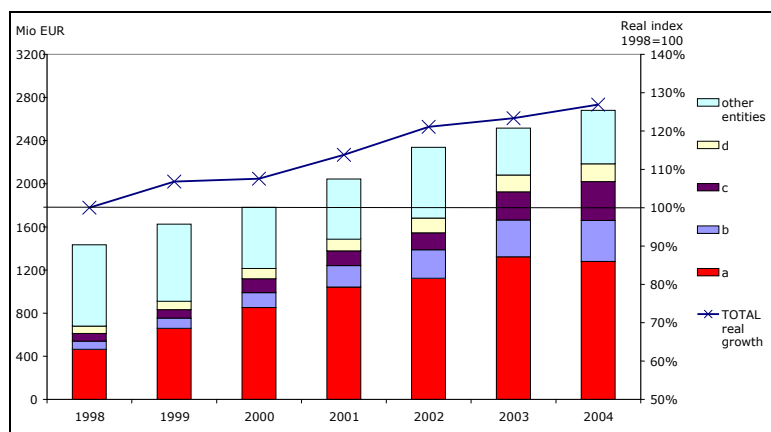
Figure 6. Distribution of revenues from sales in Slovenian retail trade sector.

Beside above average real revenues growth, the most striking feature of the Slovenian food retailing sector in the analysed period is a rapid growth of concentration. Leading enterprises represent the majority of the food sales in the country. The CR_4 in 2004 was more than 80 %, whereas the largest retailer accounts for almost half of the total sales. In 1998 the

concentration was considerably lower (CR4 = 48 %) and predominantly consisting from small regional retailing groups and traditional independent retailers. Driven mainly by processes of mergers and acquisitions by a leading retailing group and organic growth of other major players the sector has become highly consolidated. The small independent retailers have been marginalised and are now; if survived - restricted to act as convenience stores for top-up shopping. Simultaneously with the sectoral concentration growth also business performance was rapidly improving. Net profit reached about 50 million EUR which is in real terms more than double the value from 1998.

It is undeniable that the profound changes that have taken place in Slovenian food retailing over the recent years which have offered considerable economic advantages to operators. Also heavy investment has allowed retailers to reap economies of scale through the operation of large store formats and large chains of stores. This has been supported by the implementation of sophisticated logistics and distribution systems married with significant investment in new technology (such as e-POS). The result has been significantly improved efficiency with greater sales per outlet and per employee. However, beside a very successful modernisation, introduction of contemporary management practices and conduct, established growth of profit might be ascribed to the market structure too. Oligopoly – oligopsony market structure enables economic domination of retailers in the Slovenian food chain. High level of vertical power makes retailers possible to introduce business practices that adversely affect the competitiveness of their suppliers and distort competition.

Beside the evident negative effects on food suppliers' business performance the result in Slovenia might be also that suppliers are likely to invest less and spend less on new product development and innovation, leading to lower quality and less consumer choice. The high level of concentration in Slovenian retailing has negative implications also on smaller entities in the sector itself. Certain of the practices give the major buyers substantial advantages over other smaller retailers, whose competitiveness is likely to suffer as a result, again leading to a reduction in consumer choice.

Negative occurrences in the vertical relations is not unique in Slovenia, however several structural deficits of the food sector make the condition for suppliers even more unfavourable. One of these negative features is a low level of integration of Slovenian food processors into the international markets.

3.3. Are the trends in international trade with food surprising?

Slovenia has traditionally been and will very likely remain a net food importer; however the importance of agro-food trade in total international trade is limited. The aggregate of agro-food commodities accounted les than 3 % of total exports and about 6,5 % of total imports of Slovenia (SORS, 2006).

If we focus on processed food alone total trade has been growing steadily in the analysed period (Figure 7). The value of export reached almost 750 millions EUR in 2005 which is around 230 % more than in 2000. The import was increasing constantly after the independence, however after the EU accession the growth rate has noticeably intensified due to a significant reduction in borer protection (see below).

Export of processed food was oscillating somewhere around 350 millions EUR in the period. Until the year 2004 the value was increasing with constant trend, however in the year of

accession exports decreased considerably. Exports improved again in 2005, but the value has not exceeded the pre-accession level.
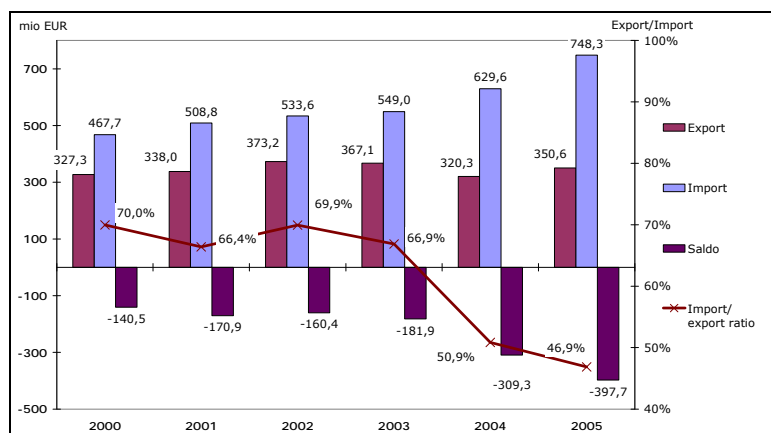
Figure 7.   Slovenian international trade with food, beverages and tobacco products.

Important feature of the international trade with food until the accession was a rather equalised development of both sides of the balance and therefore the export-import ratio has not oscillating considerably.

Due to the import increase and export decrease after year 2004 net trade deficit has almost doubled. Consequently the export-import ratio has fallen to 47 % from the levels above two thirds in the pre-accession period.

Before the EU accession Slovenia has signed various bilateral and multilateral trade agreements which progressively opened its borders to a widening range of food commodities. At the same time these agreements were increasing the potentials for better access to foreign markets for Slovenian food products. However, it might be concluded that the pre-accession trade policy has not stimulated international competitiveness of the Slovenian food industry and trade pressures are among the main determinants of decreasing sectoral performance. Unfavourable developments on both sides of the Slovenian food trade balance could be anticipated if the basic features were to be considered.

The figure 8 show effective tariff rate for food, beverage and tobacco aggregate and selected food products sub-groups in the period between 1998 and 2004. Despite the declared intention of Slovenian government to liberalise international trade, food has remained among the very few protected market prior the accession. Effective tariff rate for food has indeed falling during the analysed period from about 12 % to 8 %, however "ad – hoc" liberalisation in the year of accession considerably reduced import prices and thus made the foreign food on Slovenian market more competitive. Some sub-groups; however show the above average levels of the effective tariff rate, and those are the ones with the highest import pressures. Protection rate for milk and dairy product has been as high as 22 % in the year 2003, and was even increasing during the analysed period. Similarly, the effective tariff rate for sugar has been increasing constantly to attain 14 % in the year before accession. Interestingly, the second highest protection rate among food products in Slovenia in the pre-accession period was revealed for tobacco, whereas for beer that was in 1998 and 1999 the most protected food group in Slovenia protection rapidly decreased after 2002.
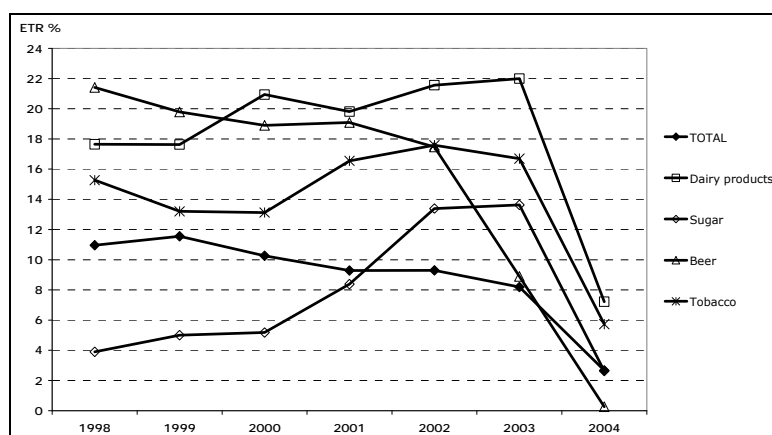
Figure 8. *Effective tariff rate for food, beverages and tobacco products aggregate and selected product groups in Slovenia.*

For the majority of other food groups the effective tariff rate in the pre-accession period has been fluctuating around 10 %, whereas lower effective protection was found edible oils, processed fruits and vegetables and in the last period also for wine.

From the evaluated import protection one could anticipate the effect of the inclusion to the internal market of the European Union on Slovenian food trade. The Slovenian food market has been highly protected until the EU accession and therefore access of foreign competitors has been impeded. After the accession the trade barriers for products from the European Union has been abolished and the effect of "trade creation" appeared, which is described as a basic effect of trade union (El Agraa, 1994). Effect of the import growth after the accession was also accelerated due to the regional structure of imports. In the pre-accession period more than a half of the total food imports value was originating from old member states of the European Union.

Also on the export side of the Slovenian trade balance the EU accession effects might be expected from the regional structure of trade which is presented in the figure 9. Until the year of accession not less than 60 % of the Slovenian food exports was realised on the markets of Former Yugoslavia. With these countries Slovenia signed different trade agreements which made food products price competitive in comparisons with other imported products. However, after the takeover of the Common custom tariff of the European Union these trade agreements were abolished and Slovenian food products were charged with tariff and consequently the import prices increased. This has immediately resulted in export decrease to the former Yugoslav markets by 15 % in 2004 and further similar fall in 2005. The share of food exports to the European Union markets was indeed increasing during the entire period, however the noticeable growth in 2005 is only partly realised by exports of high value added food products. About two thirds of increase is due to intensified export of standardised milk in bulk to Italy.
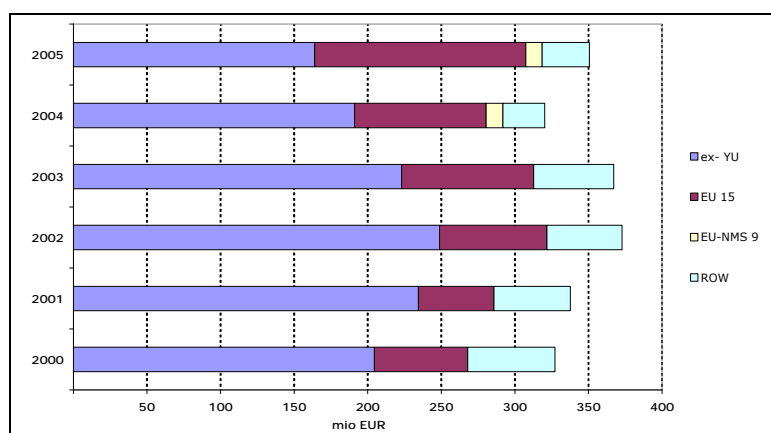
Figure 9.   *Regional structure of Slovenian exports of food, beverages and tobacco products.*

The changes in trade policy after the accession might not be the single determinant of the constant decrease of Slovenian exports to the traditional markets. Beside these, also other factor changed among the most influential are: revitalisation of domestic food production in these markets; partially the Slovenian food export is being replaced with investments in production capacities in former Yugoslav countries; and not least also the policy measures to promote Slovenian agro-food export has changed. Next chapter describes the budgetary policy for food industry in Slovenia during the pre-accession period.

3.4. Has the budgetary support to the sector stimulated competitiveness?

Agricultural policy remains a rather important determinant of the economic environment of food industry in majority of modern economies. Under the influence are especially those sub-sectors that are closely related to the volatile agricultural markets. Budgetary transfers to food industry have been increasing during the analysed period (Figure 10), however with important changes in the structure of intervention. In the period during the years 2000 and 2004 the Slovenian food industry annually received between 30 and 45 million EUR of budgetary transfers. In the figure the total budgetary transfers were divided into two parts; namely market interventions and structural policy measures.
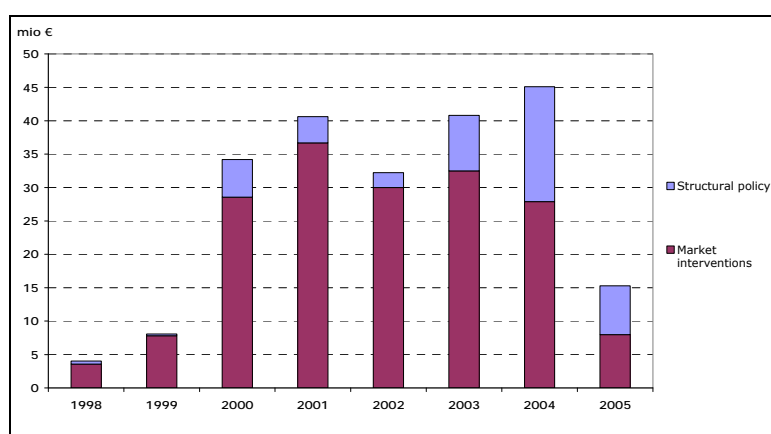
Figure 10.   *Budgetary outflows for Food, beverages and tobacco manufacturing in Slovenia.*

The first part includes mainly transfers to exporting food enterprises under the heading "Preparation of agricultural commodities and food products for external markets" with

intention to stabilise domestic agricultural commodity markets (price). Proportion of this type of support in total transfers to food industry was around 90 % until 2003, when the share of structural measures increased.

About two thirds of the export promotion transfers were earmarked for stabilisation of the dairy markets, whereas the majority of the rest was distributed to meat and vine processors. The export promotion measure in combination with bilateral trade agreements had clear distortive implications on competitiveness of Slovenian food sector and importantly influenced the structure of exports. After the EU accession the policy of export promotion has changed (eligible types of products, export destination, amount of support) and become administratively more demanding. Authority over the measure has been transferred to the EU Commission. All these changes have influenced the radical drop (for two thirds) of transfers under this measure.

The second part of budgetary transfers to the food industry presented in the Figure 10 classifies to the structural support measures, which aim at the industry competitiveness improvement. Under different programmes (National program, Special Accession Programme for Agriculture and Rural Development, Rural Development Programme) the eligible food processors receive investment support for construction or renovation of production premises and /or purchase of machinery and equipment. The amount of transfers has considerably increased in the years 2003 and 2004 due to the launching of the EU co-funded SAPARD programme and the national programme. Whereas in year 2005 almost half of the transfers originate form the RDP a structural measure, which has been for the first time entirely prepared by the EU structural policy programming procedures.

Despite the considerable amount of budgetary transfers to Slovenian food sector, majority of them has not been intended for long term competitiveness improvement, but rather to stabilise domestic agricultural markets and to correct price distortions. Only in the last period the share of structural measures increased, however processes to build sustainable economic competitiveness are demanding and long lasting.

4. CONCLUSIONS

The accession of Slovenia to the European Union was certainly the most comprehensive change of economic environment since the state gained its independence. The article attempts to reveal the economic trends in food industry during the pre-accession period and the first year of the membership. With the presentation of selected economic indicators it tries to answer four most striking question facing by Slovenian food manufacturing sector, which experiences constant deterioration of business performance. The questions are rather fundamental; however they have not been tackled systematically yet.

The price trends at all levels (input costs, producer prices, retail prices) in the sector are revealed not to be radically negative. Especially the prices of agricultural inputs have dropped considerably before accession, whereas the producer prices of manufactured food in the analysed period surpassed the overall price growth. However, prices of food at the retail level (e.g. price of composite supply) reduced in real terms. This might be explained by reduction of import prices due to the abolition of tariffs, but the price competitiveness of Slovenian suppliers has therefore deteriorated. Analysed price parities are mainly favourable for the food

manufacturers – producer prices are growing at decreasing or stagnant input costs; however producer price does not represent the whole revenue side. Especially not in the economies with highly concentrated retailing sector. The analysis confirmed evident trends in Slovenian food chain. Food retailing in Slovenia has reached very high level of market concentration and the leading four players now control over eighty percent of sales in the sector. During the analysed period the concentration in retail trade has been increasing which has been most obviously reflected in the pressures on suppliers, shifting of an increasing share of transaction and distribution costs, and in other requirement and conditions for cooperation.

Therefore the first question regarding cost-price squeeze in the food manufacturing sector might be answered partially affirmatory, whereas the answer to the second question is much more straightforward. In a phenomenon of vertical competition the Slovenian retail sector undoubtedly dominate the chain, whereas at the same time its first vertical partner – the domestic food manufacturing industry is stagnating also due to market power abuse. The retailing domination is a global appearance; however Slovenian food manufacturers are in specific circumstances due to other structural deficits. One of important ones is a specific international trade structure and distorted competitiveness on traditional markets. It has been revealed that among the main determinants of low competitiveness is pre-accession trade policy which consists of high tariff barriers and free trade agreements with ex-Yugoslavian countries. After the EU accession "ad-hoc" liberalisation triggered substantial import pressures and reduction of sales on domestic markets. Changed trade agreements were detrimental to the competitiveness on the traditional export markets, and there are only moderate trade creation effects with penetrating the EU markets. Poor integration into the EU single market thus remains one of the major structural deficits of this industry, which became obvious very soon after joining the EU. The foreseen changes of the conditions in traditional export markets, which were a consequence of acceding to the common customs tariff, radically reduced advantages of Slovenian companies there, which ended in a slump in exports. The attempts of food-processing companies to compensate for this drop by establishing themselves in the EU single market have been rare so far. Moreover, in these markets, companies face problems of a competitive and vertically integrated economic environment. Penetration into the market channels in an enlarged business environment marked by high concentration of supply will be extremely difficult for Slovenian companies.

In close relation to the revealed deficiencies in international trade is also government intervention in the sector through the budgetary transfers. The majority of transfer to food industry was under the measure that has in great extent comparable implications as classical export subsidies, only a small part of the budged until 2003 was intended for restructuring and competitiveness. The considerable growth of structural funds in the last years is beneficial; however the moment has been lost for the needed pre-accession restructuring of the industry.

Food industry is therefore now facing a substantial stimulus for sectoral restructuring at about one decade latter than the rest of the processing industry in Slovenia.

The agro-food sector is among the parts of economy that has undergone the most radical changes, and therefore long term accession implications are expected to be the most evident.

The economic restructuring that had been hindered in the Slovenian food industry during the last decade has been triggered radically after EU accession which brought to the termination of favourable economic conditions in the highly protected domestic market. Competition from the internal market, but more significantly the reduction of export competitiveness due to the

abolition of free trade agreements has caused an important long term deterioration of economic performance in almost all sub-sectors of the Slovenian food industry.

The government failed to implement a gradual foreign trade liberalisation in the market of processed-food products, which would allow control over the dynamics of exposure of domestic suppliers to foreign competition. Instead, food-processing industry was in some key segments protected up to the accession, when the "ad hoc" liberalisation took place. It can thus be expected that the consequences of accession will be more negative than they would have been be should a gradual liberalisation took place. Establishing sales opportunities and business partnerships is an extremely demanding and long lasting process, especially on the saturated and extremely competitive food markets of the European Union. As a rule, capital intensity of production is the main generator of value added per employee, which, however, depends on the use of new technologies. Innovation, development of new products and distribution methods are crucial for successful food-processing companies, with the emphasis on consumer friendly use, positive nutritive effects eco-products and environmentally friendly production. Although lately Slovenian companies have paid some more attention to these issues, the quality of supply and generated value added remain low. Only those Slovenian food-processing companies which will modernize their management and marketing strategies and actively seek for new business opportunities will in the long term be successful in the European Union markets.

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DOES A REDUCTION OF WAGES CREATE JOBS?
UNORTHODOX RESULTS IN A MULTI-SECTOR TWO-REGION MODEL OF NORTH/SOUTH TRADE

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1. INTRODUCTION

In this paper a simple model of international trade with classical features will be developed by integrating interregional trade and transport activities into a linear model of production. It will be shown that the 'international system of production' that emerges exhibits all the features of a standard classical production price model, and that the choice among different patterns of specialisation can be analysed as a standard choice of technique problem. The 'classical' features of our model consist in the following.

Adopting the method of classical economists, we determine normal or long-period prices that prevail in conditions of universal free competition by taking as given

(i)   the available set of production methods (which, in the present model, include methods for trade and transportation) from which cost-minimising producers can choose;

(ii) the size and composition of the social product (which, in the present model, are specified for each region);

(iii) one of the distributive variables (in each region).

On the basis of this long run concept we will analyse the impact of a reduction in the (domestic) real wage rate on the domestic level of employment. In addition, we will also investigate the question whether it is possible to raise a region's international competitiveness by a reduction of the (domestic) real wage rate. More specifically, we ask whether a reduction of the (domestic) real wage rate will lower the production costs and, therefore, the long-period production prices, of the domestically produced commodities relative to those in the competing region.

The paper is organised as follows. Section 2 introduces the basic concepts which will be used in the paper, i.e. we define the concept of an 'international' system of production and an 'international' system of long-period prices. In section 3 the constraint binding changes in the distributive variables (wage rates and the rate of profit) is derived for an 'international' system of production. In Section 4 we investigate the question whether a reduction in the domestic real wage rate will induce producers to switch to a technique that uses more total domestic labour. It turns out, that a reduction of the domestic real wage rate need not result in an increase of the international competitiveness of that country. Section 5 offers some conclusions.

The present paper is based on previous collaboration with Christian Gehrke, University of Graz and Joannilio Rodolfo Teixeira, University of Brasilia.

2. AN 'INTERNATIONAL' SYSTEM OF PRODUCTION

The analysis is based on the following assumptions

1. There are two regions, say North (N) and South (S), in which commodities are produced by means of commodities and by homogenous labour.

2. In each region the supply of labour exceeds the demand

3. Workers do not move between regions

4. There are $m \geq n$ production processes by which n commodities can be produced

5. All products are basic with respect to production, i.e. all products are directly or indirectly required in the production of each product.

6. Some products are tradable by using some transport processes. Hence, even if $m = n$ there is choice of technique.

7. Products are not jointly produced or jointly transported.

8. All processes are constant returns to scale processes.

9. The number of all processes is constant (no technical change)

A process k used to make a commodity i available in region N can, in general, be characterised by

$$\left\{ \begin{pmatrix} \mathbf{a}_{NN}^k \\ \mathbf{a}_{SN}^k \end{pmatrix}, l_{NN}^k, l_{SN}^k \right\} \rightarrow \begin{pmatrix} \mathbf{e}^i \\ 0 \end{pmatrix}$$

where $\mathbf{a}_{NN}^k, \mathbf{a}_{SN}^k \in \mathfrak{R}^n$ are vectors of inputs of capital goods available in N and in S, respectively and l_{NN}^j and l_{SN}^j are scalars for quantities of labour available in N and in S to make one unit of commodity i available in region N. $\mathbf{e}^i \in \mathfrak{R}^n$ is a vector where the i-th element is equal to unity and all other elements are equal to zero.

Production processes used in Region N can use only factors which are available in that region. Hence, if k is a production process utilized in N, then $\mathbf{a}_{NN}^k \geq 0$, $l_{NN}^k > 0$ and $\mathbf{a}_{SN}^k = 0$, $l_{SN}^k = 0$.

If k is a transport process by which one unit of commodity i is shipped from S to N, then $\mathbf{a}_{NN}^k \ddagger 0$, $l_{NN}^k \geq 0$, $l_{SN}^k \geq 0$ and $\mathbf{a}_{SN}^k \ddagger \mathbf{e}^i$.

We may define processes which produce commodities in region S, or, alternatively, ship commodities from N to S in a similar way.

A set U of production and transport processes, characterised by the triplet $\left\{ \mathbf{A}^U, \mathbf{l}_N^U, \mathbf{l}_S^U \right\}$, is a international system of production if the requirements for use in both regions, denoted by vector $\mathbf{d} \in \mathfrak{R}^{2n}$, can be satisfied, i.e. if there is a semipositive vector $\mathbf{x}$ of intensities of production and transport processes such that

$$\left(\mathbf{I} - \mathbf{A}^U\right)\mathbf{x} = \mathbf{d}.$$

Note that the triplet which form an international system can be represented as partitioned matrix and vectors

$$\left\{\begin{pmatrix} \mathbf{A}_{NN}^U & \mathbf{A}_{NS}^U \\ \mathbf{A}_{SN}^U & \mathbf{A}_{SS}^U \end{pmatrix}, \begin{pmatrix} \mathbf{l}_{NN}^U \\ \mathbf{l}_{NS}^U \end{pmatrix}, \begin{pmatrix} \mathbf{l}_{SN}^U \\ \mathbf{l}_{SS}^U \end{pmatrix}\right\},$$

where $\mathbf{A}_{AB}^U$ $\left(\mathbf{l}_{AB}^U\right)$, $(A,B = N,S)$, is a matrix for capital inputs (a vector for labour inputs) for products (labour) available in region A required per unit of output available in region B. Since, by assumption, all commodities are basic with respect to production, there is either a production process or a transport process for each product available in region S or N. Therefore each international system is square, i.e. $\forall U : \mathbf{A}_{AB}^U \in \mathfrak{R}^{n \times n}$, $\mathbf{l}_{AB}^U \in \mathfrak{R}^n$, $A,B = N,S$.

We may distinguish three special cases:

- U is a autarky system if $\mathbf{A}_{AB}^U = 0$, $\mathbf{l}_{AB}^U = 0$ for $A \neq B$. The autarky system is completely decomposable into two separate production systems. Hence, all commodities are non-basic with regard to the international system, even if all commodities are basic in the production system of the north (south).

- U is a system with unilateral trade if either $\mathbf{A}_{NS}^U = 0$, $\mathbf{l}_{NS}^U = 0$ or if $\mathbf{A}_{SN}^U = 0$, $\mathbf{l}_{SN}^U = 0$. Note that in this case all products produced in the exporting region are basic while all products available in the importing region are non basic with respect to the international system.

- U is a system with bilateral trade if $\mathbf{A}_{AB}^U \geq 0$ $(A,B = N,S)$. If and only if there is bilateral trade, then all products are basic with respect to the international system. This can easily be proved: Assume that region S is specialising in the production of commodity i, which, by assumption, is indispensable for the production of all commodities, then all commodities produced in S are basic with regard to the international system. If there is bilateral trade, then each region is specialising in at least one product.

    Therefore, if and only if U is a system with bilateral trade, then $\mathbf{A}^U$ is indecomposable.

An international system of production reflects a certain pattern of international division of labour. Hence there are, at least, as many possible international systems as there are feasible patterns of specialisation. The problem is to determine the cost minimising international system which prevails in the long run.

Let $\left\{\mathbf{A}^K, \mathbf{l}_N^K, \mathbf{l}_S^K\right\}$ be an arbitrary international system. If we assume perfect mobility of (finance) capital, and setting aside differentials in risk etc., a *uniform* rate of profit must obtain, and the long-run prices for such a system are given by

(1) $\quad \mathbf{p}^K = \mathbf{p}^K \mathbf{A}^K (1+r) + w_N \mathbf{l}_N^K + w_S \mathbf{l}_S^K = w_N \mathbf{l}_N^K(r) + w_S \mathbf{l}_S^K(r),$

Where $w_J \mathbf{l}_J^K(r) = w_J \mathbf{l}_J^K \left(\mathbf{I} - \mathbf{A}(1+r)\right)^{-1}$, $(J = N, S)$, is the cost of direct and indirect labour discounted off.

3. DISTRIBUTION OF INCOME BETWEEN CAPITALISTS, WORKERS IN THE NORTH AND WORKERS IN THE SOUTH IN AN 'INTERNATIONAL' SYSTEM OF PRODUCTION

If prices, the wage rate in the north and the wage rate in the south in system (1) are expressed in terms of an arbitrary commodity bundle **d**, such that $\mathbf{pd}=1$, we obtain a northern wage rate-southern wage rate-profit rate relationship,

$$(2) \qquad 1 = w_N \mathbf{l}_N^K(r)\mathbf{d} + w_N \mathbf{l}_N^K(r)\mathbf{d},$$

Eq. (2) gives the $w_S - w_N - r$ relationship, i.e. the locus of all combinations of the wage rate in the south, the wage rate in the north and the rate of profits compatible with the 'international' system of production.

Figure 1 provides an illustration of this relationship.
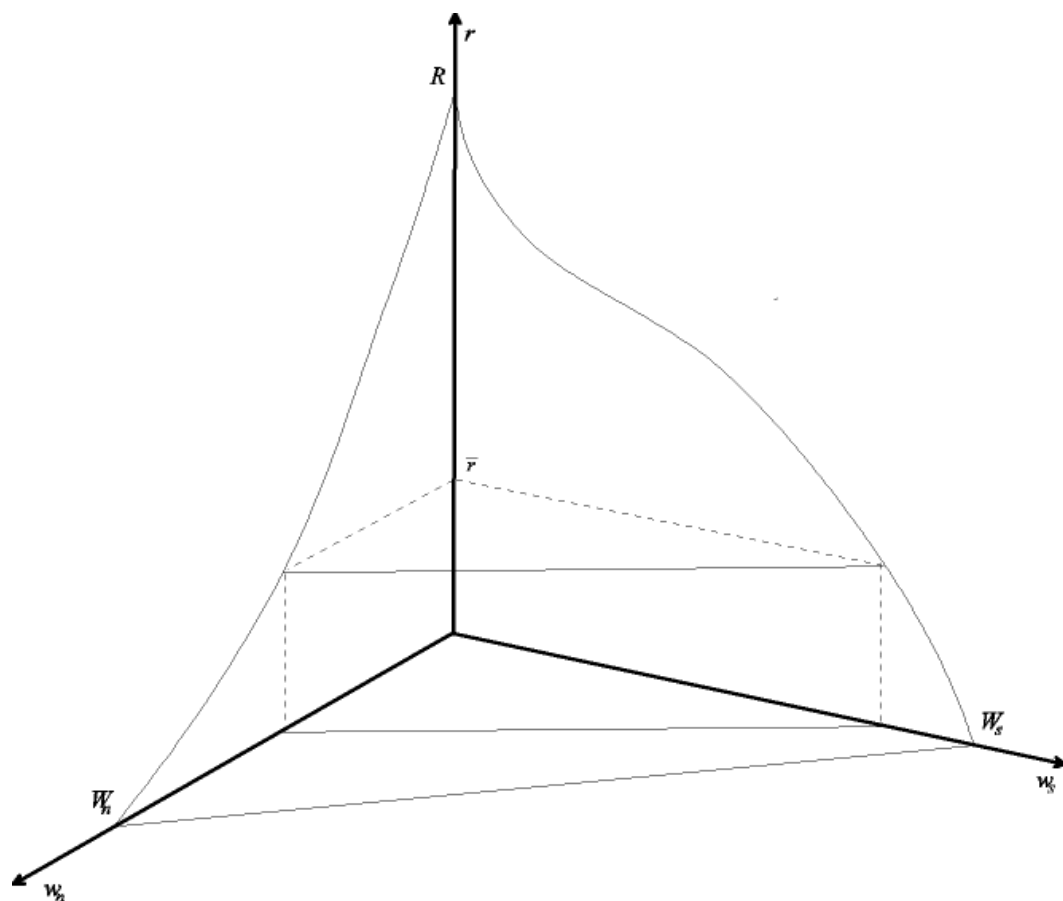
Figure 1.

Note that for a given $r = \bar{r}$ a linear, inverse relationship between the variables w_S and w_N obtains, which is given by

$$w_S(w_N, \bar{r}) = \frac{1}{\mathbf{l}_S^K(\bar{r})\mathbf{d}} - w_N \frac{\mathbf{l}_N^K(\bar{r})\mathbf{d}}{\mathbf{l}_N^K(\bar{r})\mathbf{d}}.$$

The $w_S - w_N - r$ frontier depicts the constraint binding changes in the distributive variables. If any one these three variables are taken as given, then a reduction (increase) in either of the two remaining distributive variables must necessarily be associated with an increase (decrease) in the other one.

The maximum values of the variables w_S, w_N and r are given by

$$W_S^K = \frac{1}{\mathbf{l}_S^K(0)\mathbf{d}}, \qquad W_N^K = \frac{1}{\mathbf{l}_N^K(0)\mathbf{d}}, \qquad R^K = \frac{1}{\lambda} - 1,$$

where λ is the largest real eigenvalue of the matrix $\mathbf{A}^K = \begin{pmatrix} \mathbf{A}_{NN}^K & \mathbf{A}_{NS}^K \\ \mathbf{A}_{SN}^K & \mathbf{A}_{SS}^K \end{pmatrix}$.

- The shape of the $w_S - w_N - r$ relation is only determined by the technology in general and in particular by the pattern of international trade underlying the respective system of production[1].

- It is clear that the actual value of the wage rates ant the rate of profit cannot be determined independently. Given the rate of profit and a comparably high level of the northern (southern) wage rate, than the wage rate in the south (north) is bound to be low – independent of the economic performance or competitiveness or whatsoever of the regions. The latter aspects are, however reflected by the shape of the $w_S - w_N - r$ relation.

- It turns out, that it is not only the capitalists high rate of profit but also the comparably high rate of the wage in the north (south) which can be blamed for the low wages in the south (north)

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[1] It should be noted, that this relation is in general also influenced by the system of taxes and tariffs levied on domestic production, consumption and trade. This aspect is, however, neglected here.

4. WILL A DECREASE OF THE WAGE RATE IN THE NORTH INCREASE EMPLOYMENT IN THE NORTH? – SOME PERVERSE RESULTS!

Instead of adopting bundle d as a numeraire we may account prices and the wages in terms of southern labour commanded, i.e. $w_S = 1$.

Hence, we obtain
$$\mathbf{p}^I = w_N \mathbf{l}_N^I(r) + \mathbf{l}_S^I(r),$$

Selecting the price of an arbitrary commodity i, available in an arbitrary region (S or N), we obtain

$$p_i^I = w_N l_{Ni}^I(r) + l_{Ni}^I(r),$$

where $w_A l_{Ai}^I(r)$, is the cost of total labour employed in region $A = N, S$ to make commodity i available.

Consider a system *II* which is adjacent to *I* in the sense that the two systems differ in one process. Assume that the technology of the production and trade processes is such that system *II* requires relatively more direct and indirect northern labour, i.e. $\forall j: \ l_{nj}^{II}(0) > l_{nj}^I(0)$. System *I* will be cost-minimising at the distribution $(\bar{w}_n, \bar{r})$, if

$$(10) \qquad p_i^I(\bar{w}_n, \bar{r}) < p_i^{II}(\bar{w}_n, \bar{r}) \Leftrightarrow \bar{w}_n \left(l_{ni}^I(\bar{r}) - l_{ni}^{II}(\bar{r}) \right) < \left(l_{si}^{II}(\bar{r}) - l_{si}^I(\bar{r}) \right).$$

To begin with, assume that this is the case and that, therefore, technique *I*, which uses relatively less northern labour, is in use at $(\bar{w}_n, \bar{r})$. Then a reduction of the wage rate in the north, at a constant rate of profit, $\bar{r}$, will reduce the cost differential between technique *II* and technique *I* with regard to commodity *i* if, and only if,

$$(11) \qquad \frac{\partial \left(p_i^{II} - p_i^I \right)}{\partial w_n} > 0 \quad \Leftrightarrow \quad l_{ni}^{II}(\bar{r}) > l_{ni}^I(\bar{r}).$$

Given that $\forall j: \ l_{nj}^{II}(0) > l_{nj}^I(0)$ holds by assumption, it is straightforward to start the analysis by assuming that condition (11) holds. Two such cases are depicted in figures 2a and 2b.
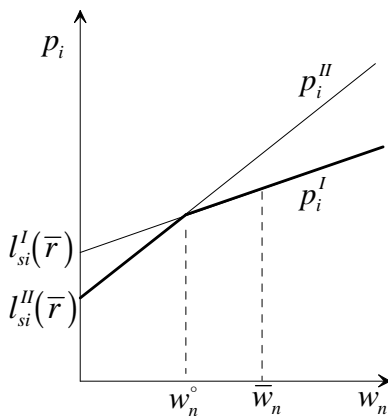
Figure 2a
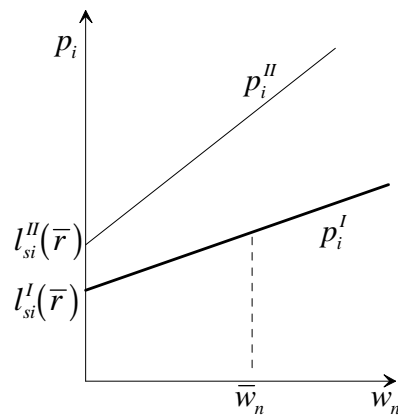
Figure 2b

Figure 2a is based on the assumption that $l_{ni}^{II}(\bar{r}) > l_{ni}^{I}(\bar{r})$ and $l_{si}^{II}(\bar{r}) < l_{si}^{I}(\bar{r})$. Consequently there is a switch point (at which both methods are equi-profitable) at w_n°. Hence, if the wage rate in the north is reduced below w_n°, technique *II* becomes cost-minimising and, consequently, it will be used. Hence, in this case, a reduction of wages in the north will create jobs in that region. However, this must not hold true if, as depicted in figure 2b, $l_{ni}^{II}(\bar{r}) > l_{ni}^{I}(\bar{r})$ and $l_{si}^{II}(\bar{r}) > l_{si}^{I}(\bar{r})$. In this case technique *I* dominates technique *II* over the whole of the positive array of w_n, and a reduction (or an increase) of the wage rate in the north will induce no process substitution and, therefore, not alter employment. One may object that this could never happen, because there are many different patterns of specialisation and, therefore, many techniques which are adjacent to technique *I*. Hence, it is likely that there will be switch points around the ruling wage rate.
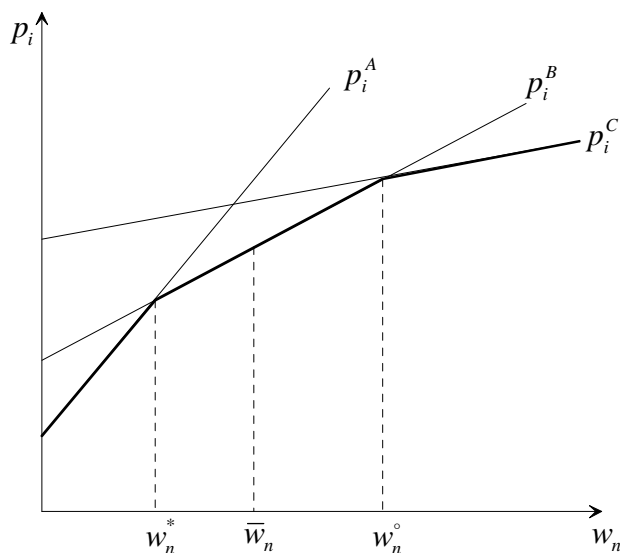
Figure 3.

Such a situation is illustrated in figure 3 for three techniques.

Obviously, $l_{ni}^{A}(\bar{r}) > l_{ni}^{B}(\bar{r}) > l_{ni}^{C}(\bar{r})$ at $\bar{r}$. If the technology is such that $l_{ni}^{A}(0) > l_{ni}^{B}(0) > l_{ni}^{C}(0)$, then we have the neoclassical textbook story which tells us that a reduction of the northern wage rate will cause a switch to system *A* which uses more direct and indirect labour, whereas an increase of wages in the north will create incentives to adopt technique C, which saves northern labour. But this need not hold true. If the rate of profit is positive, the ranking of the techniques in terms of the total amount of labour embodied may differ from the ranking of the techniques with regard to the value of the discounted flows of dated labour inputs. Hence we cannot exclude that $l_{ni}^{A}(0) < l_{ni}^{B}(0)$ and/or $l_{ni}^{B}(0) < l_{ni}^{C}(0)$ and $l_{ni}^{A}(\bar{r}) > l_{ni}^{B}(\bar{r}) > l_{ni}^{C}(\bar{r})$. In this case, we have a perverse switch at w_n^*, i.e. a reduction of the northern wage rate will then result in a switch to a technique which employs relatively less northern labour, and/or a perverse switch at w_n°, where with an increase of the northern wage rate a technique becomes cost-minimising which uses more northern labour.

Up to now it was simply postulated that it is possible that $l_{ni}^A(0) < l_{ni}^B(0)$ and $l_{ni}^A(\bar{r}) > l_{ni}^B(\bar{r})$, and that, therefore, perverse switches may occur. We could prove the existence of this possibility by means of a numerical example. It is, however, more interesting to provide sufficient conditions for perverse process substitutions and to assess whether these conditions are likely to obtain.

It is well known that, given a viable input-output matrix **A** and an arbitrary vector **z**, the elements of $\mathbf{y}(r) = \mathbf{z}(\mathbf{I} - \mathbf{A}(1+r))^{-1}$ are increasing functions of r at $0 \leq r < \left(R_A = \dfrac{1}{\lambda_A} - 1 \right)$, where λ_A is the largest eigenvalue of matrix **A**, and that $\mathbf{y}(R_A) = \infty$. In figures 4a and 4b possible shapes of two functions representing the values of the discounted flows of dated northern labour inputs required for an arbitrary commodity i produced by two adjacent techniques are depicted.
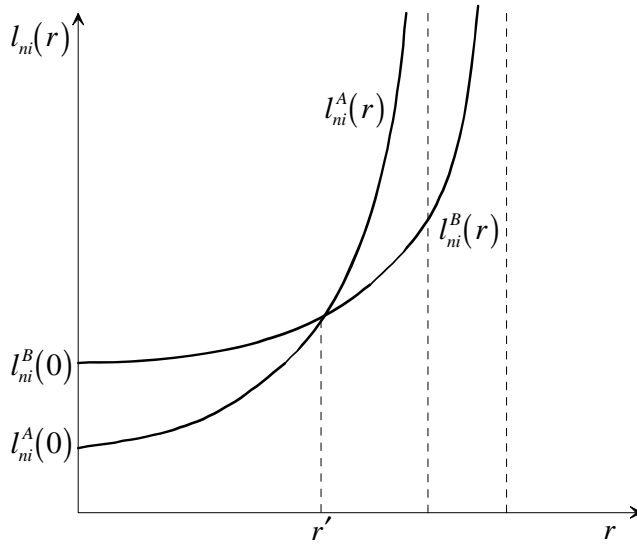
Fig 4a
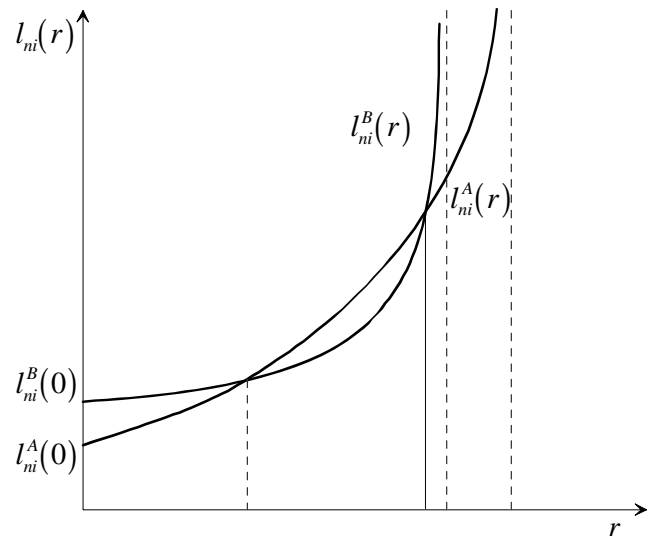
Fig 4b

Figure 4a demonstrates that, if $l_{ni}^A(0) < l_{ni}^B(0)$ holds, then $R_A < R_B$ is a sufficient condition for $l_{ni}^A(\bar{r}) > l_{ni}^B(\bar{r})$ at some $\bar{r}$. Figure 4b shows that $R_A < R_B$ is not necessary for $l_{ni}^A(0) < l_{ni}^B(0)$ and $l_{ni}^A(\bar{r}) > l_{ni}^B(\bar{r})$ at some $\bar{r}$.

In order to understand the economic meaning of the condition being sufficient for the existence of perverse substitution effects which is stated in terms of the ranking of two techniques according to their maximal profit rates we must explore the concept of the maximal rate of profit. The eigenwert problem which determines the maximal rate of profit is usually specified in terms of the direct capital input matrix **A**, i.e.

(12) $\quad \mathbf{p}(\mathbf{I} - \mathbf{A}(1+R)) = 0,$

but may be defined equivalently in terms of Pasinetti's matrix of vertically integrated capital inputs[2] $\mathbf{A}(\mathbf{I}-\mathbf{A})^{-1}=\mathbf{H}$, which shows the total (i.e. direct <u>and</u> indirect) capital inputs, i.e. it may be defined in terms of

(13) $\quad (\mathbf{I}-\mathbf{H}R)\mathbf{p}=0$.

Matrix $\mathbf{A}$ is indecomposable by assumption. It follows that $\mathbf{H}>0$ and indecomposable. Hence the maximal eigenvalue (maximal rate of profit) of the system represented by $\mathbf{A}$ is an increasing (decreasing) function of the elements of $\mathbf{H}$.[3] If there are two systems of production, A and B, then the following implication holds:

(14) $\quad \left[\mathbf{H}_A \geq \mathbf{H}_B\right] \Rightarrow \left[\lambda_A > \lambda_B\right] \Leftrightarrow \left[R_A < R_B\right]$.

Note that implication (14) cannot be reversed and that $\lambda_A > \lambda_B$ might hold even if some elements of $\mathbf{H}_A$ are smaller than the respective elements in $\mathbf{H}_B$. This might indicate that the degree of 'roundaboutness' or 'circularity' is higher in system A than in system B. Hence, if the notion of 'capital intensity' is defined in the sense that $\mathbf{H}_A \geq \mathbf{H}_B$, it is a sufficient but not a necessary condition for larger eigenvalues (smaller maximal rates of profit).

The degree of 'roundaboutness' can be measured by the ratio 'value of total capital per unit value of direct capital employed', i.e. by

$$v = \frac{\mathbf{p}\mathbf{A}(\mathbf{I}-\mathbf{A})^{-1}\mathbf{x}}{\mathbf{p}\mathbf{A}\mathbf{x}}.$$

This measure does not only reflect technological conditions but is also determined by prices, and, therefore, by the distribution of income, and by the intensities $\mathbf{x}$ at which processes are activated. For $\mathbf{x}=\bar{\mathbf{x}}$, where $\bar{\mathbf{x}}$ is the right hand eigenvector of $\mathbf{A}$, i.e. at growth with the maximal rate, it becomes

$$\bar{v} = \frac{1+R}{R} = \frac{1}{1-\lambda},$$

which depends on the characteristics of the production system alone. Note that $\bar{v}$ is a measure for the average period of capital advanced if the economy grows at the maximal rate. The maximal rate of profit, $R = \dfrac{1}{\bar{v}-1}$, is a decreasing function, and the Frobenius root, $\lambda = 1 - \dfrac{1}{\bar{v}}$, is an increasing function of that rate. Therefore, we obtain the implications

(15) $\quad \left[\bar{v}_A > \bar{v}_B\right] \Leftrightarrow \left[\lambda_A > \lambda_B\right] \Leftrightarrow \left[R_A < R_B\right]$,

which are reversable.

If the three international systems A, B, C, for which the choice of technique problem is depicted in figure 3, are such that $\mathbf{l}_n^A(0) < \mathbf{l}_n^B(0) < \mathbf{l}_n^C(0)$ and $\bar{v}_A > \bar{v}_B > \bar{v}_C$, then we have a perverse switch at $w_n^* \left(w_n^\circ \right)$: with a decrease (increase) of the northern wage rate, relative to the southern wage rate, method A (C) becomes cost-minimising which uses less (more) total

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[2] See: Pasinetti (1973).
[3] See: Horn and Johnson (1996, p. 515).

northern labour but requires, directly and indirectly, more (less) capital goods (in the sense of $\mathbf{H}_A \geq \mathbf{H}_B$) or is more (less) roundabout (in the sense of $\overline{v}_A > \overline{v}_B$) than technique *B*.

Hence, if there are reasons to assume that northern (southern) labour and total capital employed in the system are good substitutes and/or if more roundabout production saves northern (southern) labour, then 'income policy', i.e. a reduction of northern (southern) wages in order to create jobs in the north (south), may not work as unfailing as it is postulated by some economists and as it is believed by most politicians.

5. CONCLUSION

In this paper it was shown that in an 'international' system of production with free international mobility of capital a reduction of the domestic real wage rate need not be associated with a higher level of total domestic employment but, on the contrary, may be associated with a reduction of that level. It was then shown, by deriving sufficient conditions for its emergence, that such a 'perverse' result is not confined to restrictive technological assumptions. In the next step, it was shown that the attempt to increase the international competitiveness of a region by means of a restrictive wages policy need not always work successfully.

All these results were derived by means of comparative static analyses in classical long-period framework. As opposed to standard neoclassical trade models of the HOS-variety, our model is not based on the assumption that the emerging patterns of specialisation are determined by differences in the regions' endowments with 'original' factors of production, i.e. land, labour, and 'capital'. It is clear that in the present model endowments can have no role in the determination of the patterns of trade, because land was entirely set aside and no initial endowments with labour and 'capital' have been specified.

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INTERNATIONALIZATION AS A LEVER OF SUCCESS: SMEs FROM ITALIAN NORTH-EASTERN INDUSTRIAL CLUSTERS IN THE NEW GLOBAL COMPETITIVE ENVIRONMENT

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1. INTRODUCTION

The research is aimed at examining the economic situation in the border regions of the European Union after their enlargement. The examined companies have a strong ownership control, which developed and grew in symbiosis with the typical industrial clusters of Friuli Venezia Giulia, the Italian North-East border region. Analysis of their business policies as well as their environment allows for getting a picture of their strategic behaviour.

2. GENERAL ASPECTS OF THE PROBLEM

One of the causes of the present economic uncertainty in the Western world is the trend of locating production in developing countries a strategy adopted by a growing number of companies. It depends mostly on production factors, which are more abundant in some developing countries comparing to the developed ones.

First, it is true for labour, but often also for raw materials and sometimes even for capital. In a recent article, Drezner (2004) puts into evidence the impact of this phenomenon, both for the US economy and policy. By shifting production abroad, companies transfer both investments and jobs, which are missing in the home country. The results might be an economic slap and unemployment growth in the home country. It is a situation complained about, for instance, in Germany (Der Spiegel, 2004). The answer to the question of transferring the production abroad is not simple. Companies by shifting production also restructure themselves, influencing rather unpredictably the creation of jobs either in the home country or abroad.

Some political forces express the fear of impoverishment of their home country without enriching others. But location provokes the development of the goal country markets, inducing development both in the new country and in the home one, provoking an increase in an international demand. The phenomenon is more complex. In order to give a more precise answer, it is necessary to analyse the processes.

3. ITALIAN INDUSTRIAL CLUSTERS AND THEIR TRANSFER TO THE CEE COUNTRIES

In this context, it is important to analyse the impact of the EU enlargement eastwards on the Italian industrial clusters in particular those of the North-East.

Industrial clusters (Becattini, G., 1991) are areas of industrial and handicraft settlements in confined territorial zones where traditional production activities are developed in specific commodity sectors based on specialization within the single company. The small size of the companies generates low fixed costs which, on the other hand, offer the advantage of flexibility. It is the combination of the following elements: specialization, external relations and flexibility offer a competitive advantage to the cluster companies and to the cluster as a whole.

The cluster companies are primarily oriented to production delegating strategic functions depending on immaterial resources such as marketing and research and development to other business actors. The idiosyncratic competitive advantages are often based on manufacturing competencies rather than commercial or strategic ones. Moreover, the success strategies are often based on emulation. Here, they emerge the business culture dominating in the cluster and strive for reduction of the risk due to the introduction of new and unusual behaviour. Therefore the cluster companies scarcely elaborate strategies, which are new and diverse to the traditional ones. It is a paradox that the cluster company is in the same time flexible and rigid: from the financial point of view it is flexible due to low management costs, but it is rigid from the perspective of businessman cultural matrix.

In some clusters cost-leadership strategy prevails, even if implemented modified in the view of cost – leadership strategies illustrated in the literature (Poter, M., 1980, 1985; Thomen, J. P., 2000) in others, there are strategies of high value product and price.

In the context of the CEE locations and clusters, the following questions may be formulated: (a) is the CEE location is convenient also for the cluster activities and (b) in the case the CEE location is chosen what are the consequences for the home clusters? The authors have tried to answer these questions (Corò, Grandinetti, 1999; Corò, Rullani, 1998; Grandinetti, Rullani, 1996; Amin, 1993; Brusco, 1994; Varaldo, 1994; Vaccà, 1995, 2001; Varaldo, Ferrucci, 1997; Caroli, Lipparini, 2002). They stress the relevance of the territorial dimension i.e. the need for analysis of the location, either considering the role of the external economies in the processes of international integration, or trying to quantify the economic impacts of decentralization of the production abroad on the local system (Corò, Volpe, 2003).

4. THE INTERNATIONALIZATION OF SMALL AND MEDIUM COMPANIES

During the period last years there were changes of the world scenario due to increased competition of extraordinary development of technology, demand shifted, changing some of the most important elements, which contributed deeply to modify the traditional world trade rules.

For large companies, it is enough to extent the network of their subsidiaries to become multinational. The smaller companies use the other ways to extend the cognitive labour division, reducing costs of critical resources: franchising, licensing, creation of selling relationships, outsourcing, or the common access to research structures. The relationship puts together independent companies in different countries.

Internationalization does not mean international expansion of a single company but also the development of labour division between more companies. The value production is a concept, which is not anymore connected to a single company, but to the trans-national value chain available also to small and medium companies.

The different research has presented the existence of the number of small companies operating at international level, which are part of networks of diverse relationships between companies of different countries.

For instance company B is producing oak doors for kitchen closets. It is able to make thousand of them of various shapes and fashions, made to order. The process from raw material to final customer is organizing in the following way. The oak is bought from A (Croatian company), logging oak in the Slavonia region and cutting it to boards and elements. These are shipped to B (in Friuli), where the working out of the doors on NC machines specialized for oak processing, is accomplished and finally sold to the Slovenian company C, assembling the kitchens and selling them mostly to Austrian customers. It emerges how B internationalizes: by cooperating with companies A and C, situated in two different countries. We must stress moreover that B is a really small company, with only a few handful employees (see Table 1).

Table 1. Summary of international activities of a case of SMEs

Company	Countries and Regions	Processes of the value chain	Score skills	Economic Advantage
A	Croatia, Slavonia	Cutting logs, boards and elements	Specialized saw mill activity	Less than average cost of wood and labour
B	Italy, Friuli	Carving out kitchen doors with CN Machines	Precise and fashionable kitchen doors production	Productivity and working skills
C	Slovenia	Assembly and selling on the Austrian market	Assembly plus knowledge of language, culture and market	Low to middle wages, not needed learning of language, culture and market

Source: our elaborations on business data.

It is also clear why it is convenient to carry out the process in that way: if it was done on a mere national basis, i.e., in only one of the three countries, the skills and advantages given by the other two countries would be lacking and, hence, the total cost of the product delivered to final customer would be higher, competing power and/or profits lower for all the partners, A, B and C. The only economic disadvantage is given a lot more by of international transport. But, at the moment, the cumulative cost gained of A, B and C, located separately in different countries, given the different costs and skills, pay off the cost of it.

But company B has been member of this informal network only for the last two, three years, and it is now doing it only for some 70 percent of its capacity. Before, the same activity was run exclusively for the internal Italian market and tomorrow, if situation changes, it would be necessary to adjust again in some way. The survival strength of B is in its score skills, it must preserve its capacity of being able to cut out nice kitchen doors with high productivity, otherwise it would not be able to make a contribution to the network and it would be abandoned. It is also important to consider the company capacity to change quickly most of all its core-skills, in case global environment asks for it.

5. TOWARD A NEW CONCEPT OF INTERNATIONALIZATION

The topic of internationalization is quite new. Until the sixties the research on this topic focused on the trade flows between countries, using essentially the macroeconomic analysis instruments.

From 70's till now development of different forms of multinational, international, global and trans-national companies, company's networks have stimulated a quick affirmation of the business perspective inside the study of internationalization of the economic system.

The forms of internationalization begin with export (low level of internationalization) and finish by FDI (Foreign Direct Investments), as the highest degree of internationalization. Between these two extremes, there is space for several intermediate forms: complex exportation supported by marketing policies, international joint ventures, contractual agreements of various nature not involving risk capital and non-equity agreements.

As affirmed by Rullani (1995), "the internationalization is today a need for our companies, not only because, so far, competition asks for a division of labor on a global scale, but also in order to ensure a direct presence on expanding markets, especially when they are characterized by enter trade barriers".

The internationalization of the company can be seen as "a geographic expansion crossing national borders". Also Porter (1987) considers the extension of the company activities abroad as "one of the questions which are typically part of the geographical environment".

Depperu (1993) finds different steps of foreign involvement, as a result of the number and quality of the relationships that a company has with international stakeholders. Internationalization based on company's needs, may run in various directions: capital markets, competition, production, purchasing, work services, partnerships and others. Some companies internationalize only on one of these dimensions, having therefore a lower international level.

Nowadays, internationalization is giving more space to trans-national knowledge exchanges, limiting then external relationships to the mere commercialization of products, either finished or semi-finished.

The exportation, that is peculiar of Italian companies of small size in the so-called "light" or traditional areas, is not the only way to develop the exchange of knowledge on an international level. The local systems can, as a matter of fact, evolve toward more competitive structures. The epicenter of the transformation in course is represented by the costs in knowledge investments, the last to be followed at all the levels of the value chain.

In comparison with the past, the quality of the exported product becomes fundamental, if compared to quantity. Export represents a convenient form of internationalization in presence of local distinctive valuable competencies and satisfying income margins, with the possibility of determining steady market relationships in time. If, on the other hand, the exchange opportunities are sporadic, based only on costs and endowed by standardized knowledge, the export quality is frequently low.

A strategic address of this kind may have a significant growth when the principal finality of favoring the direct contact with foreign markets is coupled to services able to consolidate it, favoring knowledge exchange, entering into relationship with all levels by which to articulate the value chain in the trans-national environment.

Speaking about internationalization, it is, hence, necessary to consider which aspect to choose:

- Actively be involved by the global network, sharing also the own knowledge: the companies obtain a basic advantage as they can use their knowledge on a world scale, having the chance to share costs but also risks. Being part of a network, the company has the possibility to specialize in a specific knowledge and/or skill, counting for everything else, deliveries, service competencies, particular kind of activities on other companies, with which a confidence and communication relationship has been started;

- Distribute the activities of the value chain, in order to exploit the various potentials of each country: the companies enjoy a decisive advantage if they choose the national environment in function of the diverse characteristics of cost and productivity. As a matter of fact, it is possible to reduce costs by distributing the activities in such a way that they exploit the relative advantages of each country in specific stages of the chain, like the low labor cost of emerging countries, or public subsidies for investments in territories characterized by economic under-development. In such a way, also small companies may be able to reduce the initial costs brought by internationalization, tooling themselves in order to cross the barriers, which in the opposite case, would make it difficult to invest in far away and less known environments.

6. THE EMPIRICAL ANALYSIS

The empirical analysis was running on a sample of 74 companies. The examined companies are part of the furnishing district (an important economic area of the region), production of brandy and gastronomy, heavy carpentry and printing, plastic production and chemical products, building contracting and machine tooling, fire herd production, electric energy and others.

The international activities of the observed companies can be are following:

1) 34.74% export;
2) 27.89% import;
3) 21.58% participating in fairs and foreign exhibitions;
4) 11.05% foreign direct investments (FDIs);
5) 4.74% international agreements.

The study shows that 47 of the 74 companies are using outsourcing. The most important seat of outsourcers, (75.41%), is located in Italy, only 19.67% abroad, whereas the remaining 4.92% uses either Italian or foreign companies.

The companies maintain the international relationships, with in the following countries: Slovenia, Austria, UK, Switzerland, Germany, Denmark, Portugal, Sweden, France and USA. The companies of Friuli have close relations with Slovenia and Croatia oriented to the import of raw materials and semi-finished products

The exports are oriented to the following countries: Austria, Germany, UK and Belgium; in the relationship to those countries the companies realize specific policies, in order to consolidate their market share.

The growing interest is also toward the emergent countries of the Far East, particularly China (very attractive for "made-in-Italy). The growing importance of the markets of Eastern Europe, including the ex Soviet Union, more and more frequently addressed.

The process of internationalization (42.86% of companies), took place principally starting by the closer and more renowned countries, but the strategy is different from company to company. At the beginning, in general, the international policy of the companies was not characterized by a precise action plan. The companies only showed up into international markets in order to exploit the low labour cost, but today the trend is become suitable to complexity of environmental changes. Anyhow, also after foreign expansion, they continue to be bound to the local environment, connected with its basic culture and strategic resources, like the staff of the firm.

The internationalization of the **local production systems** regarded, in most cases, only some business functions; it is rare that the SMEs dispose of productive seats abroad. The surveyed companies maintain their core business in Friuli also after foreign expansion, delocalizing abroad only the "poorer" stages of the value chain, developing locally functions such and planning and logistics.

The examined companies analyze their economic and trade results, costs and investments needed, in order to control the market. Other interesting motivations are connected with their

strategies to wide productive assortments, economic and politic stability of the particular country, its cultural and geographic distance, competition pattern, and last but not less important is a focalization of projects in a given market niche.

Regarding **access and distribution channels**, if we consider the technical-productive connotation of the companies, it is necessary in order to overcome the main problems of foreign presence (like scarce knowledge of the market and demand, difficulty of distribution, communication and information regarding the foreign legislations), to develop the cooperation with agents and representatives, import-export companies, trading companies and buyers. The empirical analysis demonstrates how they are not precluded to the possibility of activating a direct presence on the markets, by means of subsidiaries and partners, even if the percentage of those who entertain cooperation relationships with local partners, formalizing joint-ventures or own foreign seats, is limited. The foreign business units are interested principally in the functions of **marketing, sales and logistics** and are basically **trade seats**, or representation offices. Also in perspective, the new openings will tend to privilege such form of presence more than productive units abroad. The business dimension constitutes, in the examined cases, a relevant variable. Almost exclusively companies of middle and big size follow the strategy of creating own seats, even if there are exceptionally some smaller companies oriented in this direction. Some companies also, do not have experiences of productive internationalization, as they do not feel adequately prepared under the financial and human profile; others also remain bound to the original territory by conviction, as the maintenance of the quality of the products asks steady monitoring, which would be difficult to carry out, dispersing productive units in various countries.

Under the communication activities, the most recurrent is participation to promotional actions and specialized fairs, which is demonstrated as not substitutable, particularly for the SMEs, often lacking in the resources necessary for more onerous forms of promotion. The participation to international manifestations gives it the possibility to present its own product to customers of the whole world, demonstrating its characteristics in an effective way, verifying also the possibility of absorption, before market launch. Moreover, in meeting in one that only occasion several trade middlemen and wholesalers, gives the opportunity to acquire valid information about the main competitors. The price is an important element to complete at the international level, but it is not the principal lever of competition. The surveyed companies attribute a lot of importance to non-price factors.

The average age of the interviewed entrepreneurs is 54, and the overwhelming majority of them, more than 85%, fall in the range 40-74.

The education level of the entrepreneurs is not very high: 2.82% of them have elementary education, 26.76% middle education, 42.25% diploma, 25.35% university and 2.82% a specializations.

In spite of the not very high education level, the managers exhibit a **good knowledge of foreign languages**. Only 24.32% of the entrepreneurs do not know any foreign language, 36.49% know one, 24.32% two and 14.86% three or more. The most widespread language is English with 41.58%, but there is also a discrete knowledge of French 26.73%, German 15.84%, Spanish 5.94%. It is also growing the knowledge of less known languages, like Hungarian, Portuguese, Polish, Chinese and the languages of ex Yugoslavia.

Most of the entrepreneurs had had only timid international experiences before the company started to operate on foreign markets: 17.56% accomplished formation or exploration travels on foreign markets, participating to fairs and conventions, 14.50% lived abroad, 13.74% had been working in a foreign company, 7.63% developed trade relationships before the birth of the company, 6.87% realized exchanges with other entrepreneurs, 6.11% studied abroad, only 16.73% didn't have any of the international experiences quoted by the questionnaire.

As far as the preceding working experiences of the entrepreneurs, from the analysis of the questionnaires, it comes out that for 23.08% of the interviewed the present entrepreneurial activity represents the first working experience of this kind. But the same percentage of answers was given for experiences carried out in other companies, in connected markets or different ones. Lower have been the percentages of entrepreneurs who have been working in another company, not owned by the family (but in the same area), 10.26%, in another company owned by the family (but in a connected market), 7.69%, or in the same area, 3.58%, or in a different area, 2.56%; 6.41% of the entrepreneurs were running a preceding activity, and the present company is a fruit of fusion agreements with other companies.

Table 2 shows the importance attributed by the entrepreneur to the internationalization process, in order to get certain results, in questionnaire like revenue growth, improvement of company's image, strengthening of competitive position, growth of business income, personal satisfaction and internationalization as an obligatory way.

Table 2. Importance degree attributed by the entrepreneur to internationalization connected with certain motivations

Importance	Level of importance (%)				
	Negligible	*Low*	*Average*	*High*	*Fundamental*
1. Bigger growth of revenue		4.35%	11.59%	49.28%	34.78%
2. Improvement of business image	7.25%	14.48%	7.25%	52.17%	18.84%
3. Strengthening/confirmation of the own competitive position	5.80%	7.25%	13.04%	55.07%	18.84%
4. Improvement of the company profitability	1.45%	7.25%	20.29%	49.28%	21.74%
5. Personal satisfaction of the entrepreneur	21.74%	8.70%	24.64%	30.43%	14.49%
6. Internationalization is today an obligatory choice	5.80%	4.35%	24.64%	28.99%	36.23%

Source: our elaborations on business data.

From the analysis of Table 2 it emerges that for the interviewed companies, the most important reason pushing the entrepreneur to start the internationalization process is, without any doubt, the search of revenue growth for almost the half of the interviewed companies (precisely 49.28% attributes to revenue growth a lot of importance). For 34.78% of them it is fundamental.

The factor pushing less than any other the companies toward internationalization is **personal satisfaction** of the entrepreneur, which has been indicated with negligible importance by 21.74% of the companies, average by 20.29% and high by 30.43%.

Also the data relative to other **motivation** are remarkable interesting: the 52.17% of the companies attribute a lot of importance to the improvement of a business, whereas it is basic for 18.84% of them. To the growth of business income is attributed an average importance in the 20.29% of the cases, a lot of in the 49.28% of them and fundamental in 21.74%. Moreover, there are several entrepreneurs thinking that, nowadays, internationalization is an obligatory way: this kind of motivation has an average importance for the 24.64% of the sample, a lot for 28.99% of it and basic for 36.23%.

At this point following the analysis procedure typical of structured questions, like the Likert scale, it is possible to get the total degree of importance of each single voice, which is synthetically shown as it follows:

1) Improved sales growth: 78.62%;
2) Improved company image: 65.22%;
3) Strengthening and confirmation of the own competitive position: 68.48%;
4) Increase of company's income: 70.65%;
5) Personal satisfaction of the entrepreneur: 51.81%;
6) Nowadays internationalization is an obligated choice: 71.38%.

Also the results emerging from the analysis of the data relatively to the main barriers encountered by entrepreneurs at the entrance on foreign markets have remarkable interest. The almost totality of the companies of the sample, 91.3% declared having met barriers of different nature at the entrance in foreign markets and 52.17% of them admitted that they have faced more than one of them. The most common obstacles were problems, depending on the diverse technical norms, production standards or quality certifications, excessive competition present on foreign markets, the presence of artificial barriers, like customs, custom formalities, bureaucracy, the access to information on foreign market.

There were also found other difficulties (13.71%) related to **geographic distance**, **costs and problems in with transportation**, **cultural differences** and problems related to the access to foreign distributive channels (9.68%). There were only 6 companies of the sample not finding particular barriers, and for all of them the presence on foreign markets is relatively limited and recent.

In the specific case, where the choice of the companies fell on the option regarding cultural differences, they declared moreover that these problems are connected with economic and political uncertainty, low solvency of the partners different norms and attitudes language problems in doing business, lack of knowledge about the brand, difficulties in creating trust relationships.

The companies are not able to use organizational instruments, making it possible to overcome cultural distances, transforming them in a competitive advantage for the company. From time to time they take into account persons having the professional knowledge, in order to overcome those problems, which the entrepreneurs by themselves wouldn't be able to face.

The internationalization process in the companies of Friuli Region of the sample was carried out principally step by step, one country after one, starting by the closer and/or more known ones by 42.86%; whereas 30% of the surveyed companies internationalized by looking to global customers, wherever they were, and not to single countries; 12.86% started

simultaneously with several countries, whereas 11.43% did it country after country, but independently of the cultural and geographic distance.

Only two companies of the sample have been contacted directly by foreign customers.

It is important to stress out that not always the described internationalization techniques are based on a precise business strategy developed before starting internationalization, but there are often contingent situations, representing the starting point of a more precise action plan. From the research it comes out that out of 74 of the considered companies, only 22, i.e., the 29.73% disposed of an action strategy, before the start of internationalization.

The data at disposal show that, even if there is no strategic planning at the beginning, the analyzed companies, under the pressure of contingency, after reaching the international presence, try to structure organically their decisional process, even if they are still lacking of a total formalization of the strategy. The presence on foreign markets is determined, in most cases, not by a condition of need or absence of other possible strategies, but by the search of better development possibilities and the reduction of risks connected with company activities.

The analysis of the data relative to the strategies of competition adopted by companies of the sample (Figure 1), shows that 42% of them make a product oriented to the customer and focalized on its needs (customer oriented), while 29% follow the path signed by the market leader (follow the leader), whereas 16% of them adapt, partially or substantially, its production in function of the needs and the norms in force on the destination market (country oriented). At last the remaining 14% follow a strategy based on the realization of a product defined a priori and not based on the demand of the customers (product oriented): these last companies privilege, in general, the technical functionality and the reliability, putting less attention to design and styling.

The factors pushing the companies to adapt its products are the various use conditions in the new markets, various traditions, culture and presence of local rules, as technical and security standards. Regarding this last point it is necessary to stress out the fact that many companies have realized investments, in order to improve the quality level of their products, on the basis of criteria in order to get the recognition of coherence to the standards asked for by the international homologations, like ISO 9000, 9001 and 9002, UNI 9157, EAMS. As a matter of fact, even if the legislations to that regard (especially in the EU area), tend to be uniform, there are still countries with higher standards of quality and security, compared to those of the Italian market. Obtaining the needed validations, in order to work in more selective markets, makes it possible for companies to strengthen their image at both national and international level and let it enjoy a higher business volume. The internationalization process is a path to new competencies and technologies, guaranteeing a certain trust in the future.

As far as the degree of importance attributed by the sample companies to the main factors of business competitiveness it is possible to get some useful indications from the analysis of the Table 3 and Figure 1.

Customer oriented
41 %

Country oriented
16 %

Product oriented
14 %

Follow the leader
29 %
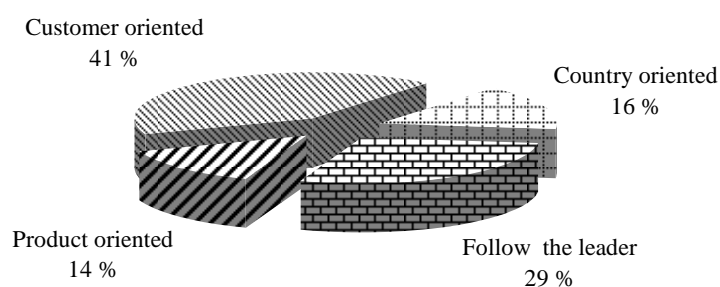
Figure 1. Competition strategies adopted by the companies of the sample
Source: our elaborations on business data.

Table 3. Degree of importance attributed by the sample companies to the main factors of business competitiveness

Degree of importance (%)	Negligible	Few	Average	A lot	Fundamental
1. Customers knowledge on the main foreign markets	5.8	5.8	23.19	42.03	23.19
2. Knowledge of competitor on the main foreign markets	11.59	10.14	18.84	39.13	20.29
3. Product adaptation	10.14	8.7	18.84	37.68	24.64
4. Quality level of the product	1.45	2.9		40.58	55.07
5. Degree of compatibility with the environmental issues	20.29	17.39	31.88	23.19	7.25
6. Price competitiveness		8.7	33.33	24.64	33.33
7. Development of new products or services	7.25	7.25	21.74	42.03	21.74
8. Efficacy of advertisement and other promotional instruments	18.84	20.29	31.88	27.54	1.45
9. Efficacy of distribution	10.14	10.14	28.99	40.58	10.14
10. Assortment of offered products	2.9	17.39	26.09	33.33	20.29
11. Skill of the personnel employed aboard to operate in an international environment	8.7	7.25	28.99	36.23	18.84
12. Management's international experience	10.14	10.14	24.64	36.23	18.84
13. Strong international engagement of the management	10.14	8.7	27.54	40.58	13.04
14. Flexibility and reactivity to the market stimulation	8.7	8.7	7.25	47.83	27.54

Source: our elaborations on business data
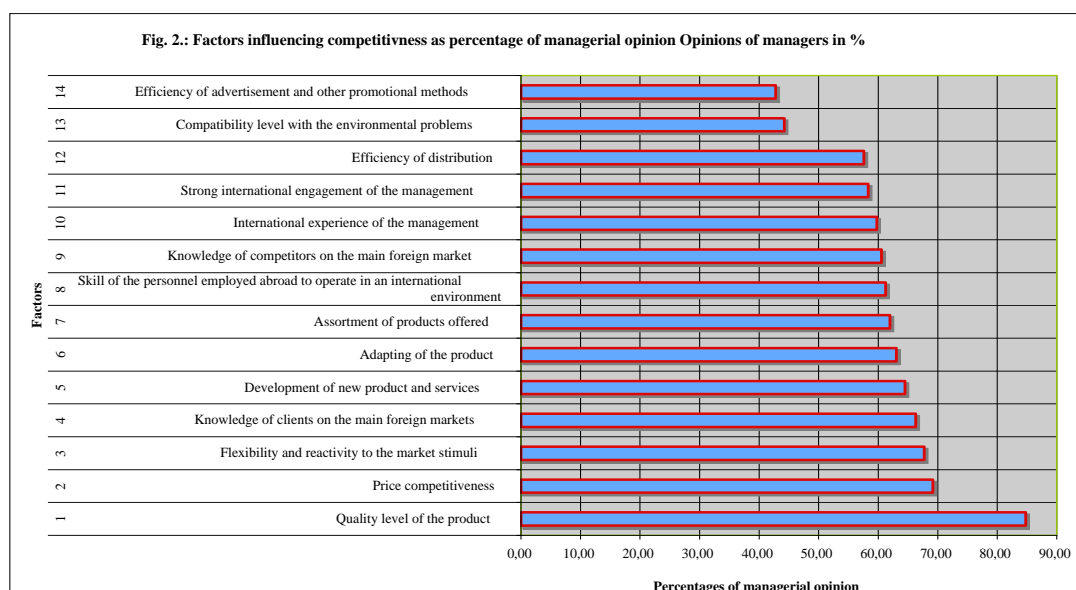
Figure 2. The factors influencing competitions
Source: our elaborations on business data.

The most important factor is the **quality level of the product**, followed by price competitiveness, meaning that success is guaranteed if a company has a good product sold with a good price. The other factors are: flexibility, customers knowledge, innovation, inclination to adapt the product, product assortment, personnel skill at international level, knowledge of competitors, international experience and well developed distribution networking. To other level of importance are compatibility to environmental problems and advertisement.

Regarding the intensity with which the companies execute some operations in the mainframe of their relationships with foreign countries, from the data of the questionnaire, it emerges that the most diffused practice is adapting the product/service to the needs of the market/customer (20.59% of companies attributed basic importance to this point, 45.59% high importance and 22.06% medium).

The import and export flows we observe that during in the period between 1999-2004, the average percentage of the foreign revenue grew by 10.54%, even if that growth did not appear as constant during all the years. There have been slight negative flexions between 1999 and 2000, where this positive trend reached 8.03%.

Also regarding the pattern of average percentage growth of sales realized with foreign countries outside the European Union, one registers a substantial increase in the period 1999-2004. It reached the level of 15.44%. That growth pattern appears as being very different from that registered with the EU. Actually from Table 4 we can observe a decisive increase of exports with a 28.05% in the year 2000 with respect to 1999, and decrease in the next years with the mere exception of the year 2002, where it is possible to observe a slight growth.

Table 4. Foreign sales (variation % during the years)

Year	Average firm sales (000 €)	Average foreign firm sales from EU countries (% of total sales)	Foreign firm sales from EU countries (proportion as against the previous year %)	Average foreign firm sales from extra EU countries (% of total sales)	Foreign firm sales from extra EU countries (proportion as against the previous year %)
1999	20,320.75	30.73		18.36	
2000	22,590.37	30.64	-0.29%	23.51	28.05%
2001	24,116.93	31.67	3.36%	23.05	-1.96%
2002	25,263.56	31.78	0.35%	23.51	2.00%
2003	26,196.25	31.49	-0.91%	22.09	-6.04%
2004	27,793.91	34.02	8.03%	20.63	-6.61%

Source: our elaborations on business data.

Finally, if we examine the relationship the number of employees with the percentage of foreign sales of the companies, it is possible to group the sample companies in homogeneous groupings, Figure 3.
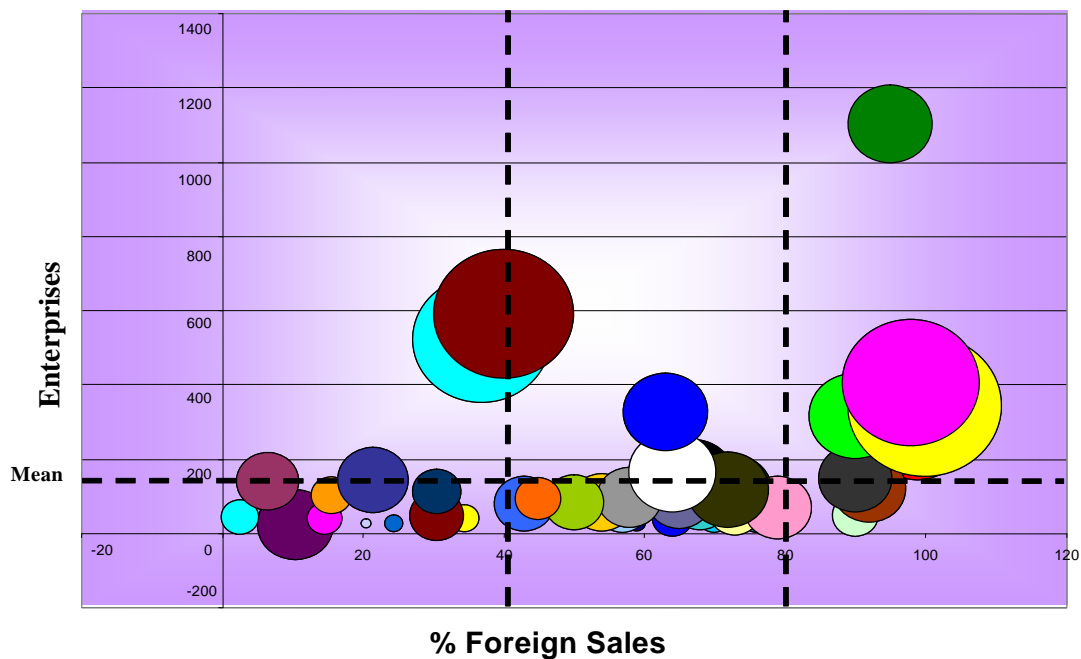
Figure 3. Export of companies
Source: our elaborations on business data

From Figure 3 we can identify 5 clusters of companies, with the following characteristics:

1. Small size companies of with the foreign sales less than 40%, low total sales (shown by the area of the circles).
2. Companies with foreign sales between 40-80% of total sales and number of employees and revenues bigger than the previous group.
3. Companies with a strong internationalization vocation consist either by companies with more than 300 employees and sizable revenues, or smaller companies with low sales and employees.

4. Two companies forming a separate group, Snaidero and Caffaro, with large revenues and number of employees, which privilege the national market.
5. Company Raco, producing conditioning plants for car industries, bound to the global car market, with a high level of export and employees.

From the Figure comes out the percentage of export of the SMEs varies in the range (0.100) pretty independently if compared to the number of employees and revenue. But, by growing this data, also international activities grow, even if there is no lack of companies bound to the national market.

7. A MULTI-DIMENSIONAL ANALYSIS OF DATA

In order to analyze data by multiple dimensions and to show the possible relationships existing between them, we choose the analysis of correspondences statistic technique[1]. This is a non parametric technique of exploration of categorical data, making it possible to give a simple and synthetic representation of phenomena, putting into evidence graphically the connections between a relatively high number of points representing groups of categorical or dichotomised variables, ordered, or non ordered. It is based on the use of indexes of connection and variability[2].

In the following elaboration, the values of the used variables have been grouped in classes (all the estimation values are presented in annex 1).

More precisely, in order to typify the companies and the internationalization strategies followed by them, the following four variables have been defined:
1. Performance indicator, sales/employees; average data relative to the considered period:

Class	Name
>100	*
101-200	**
201-300	***
>300	****

2. Number of foreign customers:

Class	Name
1-20	1
21-50	2
51-100	3
101-150	4

3. Percentage of sales abroad on total sales of the company in first three years after its foundation:

Class	Name
0	0
<10%	<10%
10-24%	10-24%
25-49%	25-49%
>50%	>50%

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[1] All the estimates have been realized utilizing the statistic packet SYSTAT 11.
[2] It is about the statistic chi-square (connection index) and the values of the matrix Burt (variance indexes), which is directly derived from the data matrix.

4. Typology of internationalization followed by the company:

Class	Name
Country after country, starting by the closer and more known ones	a
Country after country, independently on the geographic and cultural distance	b
Simultaneously several countries	c
The company internationalized looking at the global customers, where they would be, not to the countries	d
The company has been contacted from abroad	e

Correspondence Plot
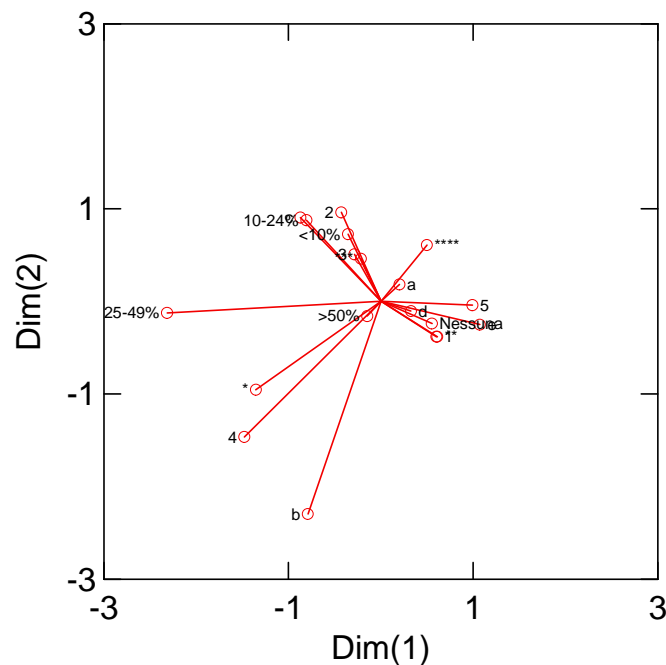
Figure 4   Relationships internationalization strategies and performances
Source: our elaborations on business data

At last a performance indicator has been put in as a supplementary variable, obtained as relationship between the average sales in the period and the average number of employees of the company. So, it was possible to realize a graph based on the multiple analysis of the correspondences which makes it possible to compare simultaneously in a bi-dimensional space the reciprocal position of all the variables and their categories taken into consideration. The active variables contribute, therefore, in the definition of the graphical space, defining the position of the centric of the representation, origin and axes and the geometric orientation of the axes. The interpretation of the position of the points of the Figure based on correspondence analysis is relatively simple. The reciprocal position of the points offers an analogical representation of the statistic connection existing between the points. When the incidental angle of two points relatively to the centric is less than 90°, it shows a positive connection. The connection is growing when the angle is rising. Angles equal to 90° show a zero connection while angles bigger than 90° are negatively connected. As far as the

interpretation of the absolute position of the points with reference to the centric, the points closer to the centric tend to have higher frequency and hence statistic mass[3], whereas points farther away tend to have lower frequency. By the way it is necessary to tell that the realized Figure represents a bi-dimensional space, each dimension corresponds to a single Cartesian axis. The dimensions are ordered in a hierarchic way on the basis of the quantity of total variance explained by each of them. The method guarantees that the first two dimensions are always the most representative ones. But the absence of bias is not guaranteed[4].

Given the limited incidence of such biases in the examined case, we considered limiting the exposition to the bi-dimensional graphic analysis.

The Figure shows a strong correspondence between the companies having a high number of foreign customers (indicated by the number 4 in the present Figure), presenting also a low index of performance (shown by an index sales/employee less than 100-€), indicated by *, an impact of foreign sales on total sales bigger than 50% and the following of internationalization strategies of type b (meaning step by step, a country after the other, independently of the cultural and geographic distances). Moreover, it is also possible to see an association between the average levels of the index of performance (shown by an index sales/employee included between 100 and 200) indicated by ** and the internationalization strategies of type d (companies internationalize looking at global customers, wherever they are, independently of the countries). High level of performance is present in only one local unity, indicated by ****.

8. CONCLUSIONS

The data is showing that in a first moment the companies faced international markets, in order to exploit opportunities of exogenous nature. Afterwards the companies they built up their competitive success on the flexibility and on the capacity of adaptation to the changed environmental conditions. In general, even if there is a lack of initial planning, the companies, characterized more by contingent initiatives rather than by projects of middle and long period, as soon as they reach international presence, they structure organically their own internationalization strategy keeping in consideration the differences between market-countries. The international presence in most of the cases is not determined by a condition of need or a lack of other possible strategies, but by the research of better development possibilities and the reduction of risks connected with the business activity. In some cases the smaller companies have followed the internationalization paths of the leading pioneering companies, which succeeded in opening new markets.

The sample companies have always kept, even after the expansion abroad, a strong relation and rooting in the local environment, concerning the basic culture and some resources-functions, such as entrepreneurship, productive capacity, personnel. The competitive advantage lies in the capacity of putting into relationship the specificities and knowledge of the local environment with the opportunities of the international contest.

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[3] The reason is that these points have a higher weight in the definition of the position of the centric, coinciding with the average profile of the utilized data. Categories having higher frequency and, hence, statistic mass influence higher the value of the average and, therefore, they tend to be closer to the centric.

[4] It can happen that the variability of a single category or variable is explained principally by dimensions higher than the second one, which do not show up in the bi-dimensional representations. The exact evaluation of the position of these points asks for an accurate examination of the numerical output.

The will of serving in the best way those markets which are showing growth perspectives, the development of an international image which is growing over the local rooting, the search of a higher productive efficiency and the exploitation in other markets of the own competitive advantages, are the principal objectives of the internationalization strategies, followed by the companies of this region.

The studied system is crossing today a transition stage with new and more complex forms of company strategies. The prefigured evolution seems to be conditioned in its results by the emergence of a more open and composed entrepreneurial culture, by a more equilibrated growth of the organizational structures and by an enrichment of the system of relationships between the companies within and outside the area, which is going to integrate that net of inter-company relationships, based in the past on the sole operative dimension of trade exchange and immediate competitive facing.

The companies of Friuli Region are showing up, anyhow, a high degree of flexibility and adaptation capacity of product to client, qualities that help them to renovate quickly and to be able to succeed on the market.

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INTRODUCING EVALUATION OF DEVELOPMENT PROGRAMMES IN CROATIA
AN OPTION, OBLIGATION OR NECESSITY?

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Key words: *evaluation, regional policy,*
  Regional development, Croatia

1.   INTRODUCTION

Experience with evaluation has evolved through several stages, with its origin in the late 80s and early 90s, when evaluation was more formally developed and integrated around specific stages in the programming cycle, and designed with the aim to meet public accountability requirements. Evaluation activities are now a part of a wider trend within the Commission and since 2000 have become a requirement for all types of Commission activities. This paper seeks to provide an overview of the relevance, main goals, objectives and purposes of evaluation for all those implementing it, with particular focus on ex ante evaluation, as well as relevance of evaluation for a country which is in the very initial phase of introducing it - as is the case of Croatia. The paper stresses the main evaluation purposes such as accountability, improving planning, quality and performance, but also argues that there are other very relevant purposes, particularly learning and capacity building - relevant from point of view of Cohesion policy, but also for all management of socio-economic development programs implemented within a   certain region/country - an aspect which was not given due importance so far. A short overview is provided regarding the main approaches, methods and evaluation functions, which have substantially changed in the past nearly two decades, as the result of some weaknesses and constraints of the evaluation process. However, these obstacles and constraints do not undermine in the least the   importance of evaluation as a methodology, tool and practice/principle whose implementation is of undisputable contribution to the effective and efficient management of development programmes and development policies.

2.   THE CONTEXT, PURPOSE AND MAIN GOALS OF EVALUATION

We can define evaluation as a selective exercise that attempts to systematically and objectively assess progress towards the achievement of an outcome. It involves assessments of different scope and depth carried out at different stages in time in response to evolving needs for evaluative knowledge and learning during the effort to achieve an outcome. Its focus is on expected and achieved accomplishments, and it aims at determining the relevance, impact, effectiveness, efficiency and sustainability of the interventions (Smith, 2007). In this regard, its main purposes are to:

- understand why and to what extent unintended and intended results are achieved, and their impact on stakeholders
- serve as an important source of evidence on the achievement of results and institutional performance,
- contribute to knowledge and organizational learning.

Evaluation practice, definitely   cannot be perceived as purely scientific research. The main challenge is to produce directly useful knowledge that is of value to society. From this point of view, it can be looked upon as a form of participation in the European "knowledge based society" (Basle, 2006).

If we agree that the moving force behind evaluation activities is very often the desire to have a positive influence on policy, then we can also agree that one of the main goals of evaluation is to upgrade the current as well as future development policy by way of the assessment of the results of particular interventions, to enable transparency and accountability when reporting on the results of development activities and policies to citizens, as well as to improve the management of socio-economic programmes. In this regard, evaluation can be perceived as a management tool, formalizing thus some of the good practice which is currently emerging on an informal basis in the framework of Cohesion policy evaluation

An important evaluation goal is also the improvement of management and delivery. Namely, a fully integrated evaluation process can definitely contribute to the way programs are managed and delivered, by way of providing feedback to programme management and supporting "mid-course correction" on the basis of nearly always existing early outputs. Since many of the issues encountered at the early stages of implementation concern processes (how parties interact, how decisions and pans are made, how partnerships are being developed, etc.) their evaluation can be helpful to all involved partners as well as to the main sponsors and programme managers (Tavistock Institute with GHK and IRS**,** 2003).

The most commonly recognised purposes of evaluation as pointed out within the Commission sponsored Guide (Tavistock Institute with GHK and IRS**,** 2003) are:

- Planning/efficiency - ensuring that there is a justification for a policy/programme and that resources are efficiently used.

- Accountability - demonstrating till what extent a programme has achieved its objectives and how well it has used its resources.

- Implementation - improving the performance of programmes and the effectiveness of how they are delivered and managed.

- Knowledge production - increasing understanding of what works in what circumstances and how different measures and interventions can be made more effective.

- Institutional strengthening - improving and developing capacity among programme participants and their networks and institutions.

The purpose of evaluation is also learning by way of systematic appraisal regarding the efficient design, implementation and delivery of development programs and policies. Among the mentioned purposes, accountability was actually the first purpose adopted in the framework of the Structural Funds and still remains the most relevant aspect of evaluation conducted within Cohesion policy. Accountability is partly expressed by way of the formal requirement for evaluation to be undertaken and specifically through assessments of impact that strive to demonstrate what has been achieved through expenditure of public money (Batterbury, 2006). A further purpose – improvement of planning – is addressed through ex-ante appraisal, and, recently, through mid-term evaluation as well. Along with the mentioned, numerous other purposes are often stated – from improved quality and performance, increased ownership of the programme and empowerment of stakeholders. However, from point of view of Cohesion policy, accountability and better planning and programme design seem still to have the leading role, while the empowerment of stakeholders and programme ownership seem to be considered as least relevant. Among the often stated, but still rather neglected, even though useful evaluation purposes are capacity building and learning. The first mentioned purpose addresses continuous improvements in performance and organizational learning and directly relies on stakeholder engagement focusing on issues such as: identification of the criteria the programme managers would use to judge "success", the aspects that programme managers feel need to change in order to achieve better results; and whether the evaluation helps programme managers gain better understanding as to how to achieve success in the future. As far as the purpose of learning is concerned, we can state that it is both the ultimate goal and purpose of evaluation. Issues like what lessons can be learned for other programmes and policies, and whether and why there are unintended effects are in this regard very valuable (Batterbury, 2006).

Evaluation is not a goal per se. In the framework of socio-economic development, the focus of development policy is on fostering social and economic aspects of particular regions, sectors and individuals. Even though each socio-economic development program has its own specific goals and justification**,** reasons for evaluation are in all cases the same and strive to answer whether it is possible to apply evaluation procedures and methods in such a way as to upgrade the quality of life, well fare and opportunities available to citizens. In this regard, evaluation puts forward and answers to questions which are useful and relevant to all concerned with development programs, regardless of whether they are managers, policy makers or beneficiaries of development programs.

Socio-economic development is often extremely complex and faced with numerous uncertainties since it is not a precise science. When properly applied, evaluation can contribute to effective management of such programmes and contribute to the solving of unavoidable uncertainties of complex situations. Identifying development objectives and measures, designing programmes and implementing as well as sustaining development

dynamics all ask for analysis, anticipation, establishing feedback systems and mobilizing different institutions, agencies and population groups. Evaluation know-how and practice has contributed to these processes and has thus become a key component in so many socio-economic development programmes.

Since evaluation can be perceived as an integral part of decision-making and management, contributing to democratic accountability, a well-functioning evaluation system must be integrated into the policy/programme cycle. Furthermore, evaluations and those who commission and use evaluation results need to balance most suitable methods with the demands of pragmatism. Namely, in the real world of socio-economic development, we rarely have the time or resources - or even the data - to implement a comprehensive "State of the Art" evaluation. In this regard, there are many strategic choices that have to be made about evaluation. For example, just to mention a few: when are greater investment in evaluation justified? Under what circumstances are sophisticated methods needed? How can evaluation fill gaps in knowledge that in a more perfect world would have been covered before an intervention was even planned? (Tavistock Institute with GHK and IRS**,** 2003).

3.   CONCEPTS, CURRENT APPROACH AND METHODS OF EVALUATION

3.1. Current concepts in evaluation

The current approach in evaluation practice and activities is, in regard to previously mentioned, basically   related to Cohesion policy, in the framework of which evaluation, in the sense we are referring to here, was introduced during in the 1990s, since it was this policy that was subject to more systematic evaluation than any other EC policy. The approach was basically focused on accountability, efficiency, relevance, coherence, sustainability, environmental impact and added value. However, regardless of the often stated aim of DG REGIO to foster policy learning, the dissemination of good practice in evaluation and the espousal of methods that identify causality – what works, where and why – have yet to be systematically incorporated into Cohesion policy evaluation (Batterbury, 2006)

During the 90s, the Structural Funds provided the first solid grounds for the new evaluation approach, led by the Commission, which at that time had the main responsibility for the evaluation process. Since the end of the 90's, the evaluation of the development programmes in the framework of Cohesion policy was substantially decentralised to the national and regional levels of the member states.. However, the national and regional authorities still functioned in this regard within a tightly regulated framework for monitoring and evaluation, as determined by the 1999 Council regulation (Council of the EU, 1999), which tightened the monitoring process by using indicators, measurable objectives, benchmarks and targets. Success is now being assessed through measuring the programme's achievement in regard to specified targets based on predefined indicators (European Commission, 2003).

The current Commission approach on stressing four purposes of evaluation: contributing to improved policy and programme design; assisting in the effective allocation of resources; improving the quality of programmes and accountability (European Commission 2004) confirm a shift from ex post, summative evaluation approaches in the direction of ex-ante evaluation and impact assessment. In order to understand better the current evaluation concepts and practice, regardless of still present debates and unanswered questions, as well as

some still present problems and obstacles, it is necessary to consider the main philosophical background, evaluation functions and some of the most relevant methods which underpinned evaluation practice in the past two decades.

3.2. Basic approaches , methods and evaluation functions

Evaluation experience of the EC Cohesion Policy shows a variety of ways in addressing evaluative questions, which resulted with a relatively similar general approach, but based on differing   evaluation   functions and methods - each of which has its advantages and shortcomings. They are considered in the following section since they are interesting to a country only introducing the evaluation practice within its own development policy.

Namely, the debates related to evaluation practice have their origin in different philosophical traditions. The Tavistock Institute's Guide distinguishes three main approaches - *the positivist, the realist and the constructivist approach* to evaluation which present the different purposes and methods of EC Cohesion policy evaluation.

The classical, i.e. positivist approach, is based on the assumption that objective knowledge is obtained through observation. This approach presents the initial purpose of EC Cohesion policy evaluation, i.e. accountability, with the main focus being on   efficiency and effectiveness of Structural Funds, i.e. measuring what has been achieved in regard to objectives and determining the policy appropriateness as well as specific types of intervention (Bachtler and Wren, 2006). Evaluations based on this tradition are often referred to as *"summative" or "allocative"* - carried out with the main purpose of justifying the use of Cohesion policy expenditure. We come here to one of two main functions of evaluation - delivering accountability. "Objectivity" is of pivotal importance - providing legitimacy for external stakeholders contributing with financial resources. The main points of examination within this "summative" evaluation approach are programme performance with regard to efficiency and effectiveness, with programme impacts identified (Eser and Nussmueller, 2006) .

In the framework of this approach, particularly within ex-post evaluations for major programmes, macro-economic models have been used, as well as dynamic input-output analysis for the ex-ante evaluations. Among other techniques, even though more rarely used, were control groups and other statistical methods. Initially, "top-down" methods were common, based on statistical techniques, drawing upon macro-level secondary data sources or regional relocation cross-sectional data. By the end of 1980-s, these initial methods were joined by "bottom-up" techniques, drawing upon micro-level information, which were often applied to   smaller programmes. Among the most commonly used were the combination of programme monitoring data, surveys of beneficiaries and regional or sub regional statistics.

Both "top-down" and "bottom-up" approaches remained positivist in nature from point of view of seeking to make objective estimates of the impact of the Structural Funds on variables such as employment - striving thus to disentangle the impact of regional policy from other influences, by way of directly seeking the needed information from those surveyed, or through applying statistical methods to the survey data (Armstrong and Wells, 2006; EC 1999)

The positivist approach still remains the most commonly used philosophical background when the evaluation of *economic* impacts of the Structural funds community economic development initiatives (CED) are concerned. However, the shortcomings related to this approach, stemming from measurement difficulties – are due to their results often providing imprecise estimates, and the unsolved issue related to reconciling bottom-up micro-analysis, with top-down macro-analysis, (Bachtler and Wren, 2006) are still often raised.

The realist approach builds upon the mechanisms that explain the changes in policies and programmes by way of social enquiry among practitioners.

Based upon measuring impact an performance within the previously mentioned approach, an often put forward "realist" question is "why things work (or not) in specific contexts" (Bachtler and Wren, 2006; Batterbury, 2006"). This approach, encompassing the often referred to ***"formative" evaluation techniques*** focuses on examining the effectiveness and relevance of implementation procedures with the goal of improving programme design and deliverables. In contract to the first mentioned main function of evaluation (summative evaluation), such a formative evaluation function gives prior importance to internal stakeholders, i.e. programme management, civil servants and intra-organizational learning (Eser and Nussmueller, 2006). This philosophical tradition seeks to open up the "black box" of the positivist methods (leaping directly from the input side of the policy to the outputs) within programmes nad policies with the aim of uncovering the mechanisms that account for change (Tavistock Institute with GHK and IRS, 2003).

The most often used methods within this approach are stakeholder interviews, case study research to assess programme management, partnerships, project appraisal and selection, as well as monitoring arrangements - resulting with a relevant contribution to the "learning effect" within programmes (Bachtler and Wren, 2006). However, problems are present here also, related to the conflict between accountability and learning . i.e. deciding whether the main purpose of evaluation was to justify expenditures or to learn, i.e. whether the role of the evaluator was to be a judge or moderator. The shortcomings are partly seen in the governance structure of the Structural Funds as well as to the narrow focus of EC Cohesion policy evaluation - on improved planning, accountability and performance - with the other possibly useful functions such as capacity building and learning being neglected (Batterbury, 2006), which are crucial for enhancing the quality of the programme.

However, this philosophy has not been successful in supplanting positivism, since, for example, community economic development priorities still continue to be evaluated using orthodox economic evaluation methods. Theory-oriented methods have effectively come to be used to complement orthodox economic evaluation rather than as an alternative to them, typically providing insights into *how* programmes work. while positivist approaches *measure* the net economic impacts of programmes (Armstrong and Wells 2006). This has resulted with the practice that the realist approach is now to a large extent espoused on the project level, supplemented by active community engagement from the project design to completion phase.

The constructivist approach, on the other hand, rejects objective knowledge and promotes evaluation by way of joint interaction with stakeholders with the aim of understanding different views, values and interdependencies. It radically opposes positivist philosophy since "it is only through the theoretisations of the observer that the world can be understood; *constructions* exist but cannot necessarily be measured " (Tavistock Institute with GHK and IRS, p. 20). Constructivist approaches have not been strongly reflected in evaluation

procedures and the Commission sponsored Guide (Tavistock Institute with GHK and IRS, p. 20) argues that "such an approach can be helpful in improving engagement of the local community due to the fact that an evaluator, applying it, is likely to assume a responsive, interactive and orchestrating role bringing together different groups of stakeholders with divergent views for mutual exploration and to generate consensus".

Methodological approaches thus depend on the 2 different above mentioned functions of evaluation. If a formative function is envisaged, the recommended methodological approach will be the strong involvement of evaluated administration - thus enabling organizational learning effects. On the other hand, in the framework of infrastructure programmes, with quantitavely measured outputs, where there is no need for organizational learning, a summative methodological approach can be a better evaluation option (Eser and Nussmueller, 2006).

Internal versus external evaluations
Approaches related to internal versus external evaluations also reflect some of the above mentioned issues and still trigger debates. Namely, evaluation implemented by external evaluators had certain advantages, like higher probability of delivering objective information. Also, external assessors are better in delivering new ideas based on their independent positions. However, as argued by Esser and Nusmueller (2006), they are, among other, in a more difficult situation to obtain internal information and insights into informal processes. In contrast, main advantages of internal evaluations are in the more substantive organizational learning effect - as a result of the fact that the problems are addressed by the administration itself. Also, in contrast to the situation with external evaluators, internal ones have better access to all internal information. The shortcoming with this approach is in the possibility that the internal evaluation lacks credibility and the evaluator suffers from organizational blindness.

Qualitative versus quantitative approach.
Debates related to different approaches and methods also relate to the qualitative versus quantitative evaluation analysis. Even though it is understandable that clients require precise quantitative data from evaluations, particularly when considering project deliverables and impacts, thus legitimizing public resources, it is also evident that evaluations should reflect upon the strengths and weaknesses of management and delivery systems, which go beyond economic analysis of the effects of strategies, and require a multidisciplinary approach using qualitative analysis (Jakoby, 2006). Immediate outputs of a project can be easily measured, but more indirect impacts are not easy to analyze by way of only quantitative analysis. Even though the EC has not found an appropriate balance and viewpoint regarding this approach, common understanding is reached among experts in this regard. Namely, that quantitative data should be provided whenever available, but should also be complemented with qualitative analysis.

4. SOME WEAKNESSES AND CONSTRAINTS OF THE CURRENT EVALUATION POLICY

Some constraints, we might even say failures, related to evaluation policy were considered already in the previous chapter dealing with approaches, methods and evaluation functions, since the changes of approach were primly triggered precisely due to some constraints related to currently applied evaluation methods and approaches. Along with generally known imperfections of the scientific approach in human and applied social sciences, the most frequently referred to constraints are, among other, the result of management and other problems, such as unavailability of appropriate statistics and data before the evaluation is commissioned, the difficulty of producing adequate terms of reference, problems of adequate timing etc. (Basle 2006)

A fact to be taken into account is that there are considerable lags involved between policy action and final outcomes, as well as conceptual problems that are common to all policy evaluation exercises. For example, it is always difficult to determine what would alternatively have happened to key economic variables such as investment, output and employment had policy intervention been absent. (Martin and Tyler, 2006). The previously mentioned and often repeated constraint related to the quality of available data for assessing the extent of change that takes place in a certain region is definitely one of the key obstacles. This varies significantly and only a few Member States have developed detailed and consistent data systems at the regional level needed to measure these changes in economic development. For example, evidence has been found in past evaluations on the basis of which it can be concluded that there was no feasible way to cross-check data implying that some results were more "expectations", rather then scientific results from observation tests or similar methods. These results were further put under question when noticing that there was no possibility to cross-check data with national data (CSES Report in Basle, 2006) Similar, quality of data based on interviews with key partners also has its weaknesses. It is expected that the further improvement of the process of monitoring will also contribute from point of view of providing a better foundation in knowledge from databases that are constructed at the regional level.

Further, evaluation practice is currently still rather centralized, as can be expected due to the way it emerged and developed in the framework of Cohesion policy. A centralised approach is often characterized by inflexibility, and, in this regard, it can be an obstacle to further development of evaluation as an effective and efficient tool for programme management, and, actually, management of socio-economic development itself – which definitely asks for a flexible and decentralised approach. Ideal conditions for evaluation do not exist due to a number of reasons - lack of data, resources, time, problems regarding time adjustment related to different cycles of evaluation, as well as problems related to the lack of certain skills for the implementation of evaluation. Having this in mind it is very important that both programmers as well as evaluators and all those who use evaluation results always balance the most adequate and available methods with pragmatic requests.

Shortcomings related to time adjustment are linked to specific types of evaluation, actually, evaluation cycles. Namely, the first cycle starts with ex-ante evaluation, which determines the initial needs and feasibility of planned programs. This is followed by mid-term evaluation which determines the achieved and realized so far. Finally ex-post evaluation is focused on the results. However, ex-ante evaluation should be build into the programme design and formulated policy, just like mid-term evaluation should help in the designing of the

implementation of the programmes and policies. At the very end of the cycle, ex-post evaluation should contribute once again to the verifying of the policies (Maleković, S., Puljiz, J., Polić, M. 2005) The adjustment of these cycles is necessary, but often does not take place. Namely, ex-ante evaluation often takes place too late to be of maximum use for the designing of the programme, and even more so for policy formulation. The results of this first evaluation simply often end up coming too late on the table, thus impeding their contribution to further questioning of the policy.

Also, changes in policy and programming can appear once evaluation is in course - which actually often happens in national and EU programming of socio-economic development. This can cause changes in defining goals and priorities, after the systems for measuring results have already been determined. It is even possible that the same projects and interventions which were the focus of evaluation will be cancelled. One of the means for decreasing these obstacles is the inclusion of policy makers and planners in the design of evaluation which can help in the adjustment of these mentioned interlinked activities.

Even though most obstacles related to evaluation policy can be considered from point of view of constraints for evaluators, experience in some countries has shown that requirements from, for example, ex-ante evaluators, were sometimes too demanding and ambitious. Pressure from their part on programming teams to target Structural Funds interventions on more narrow and focused operations could have endangered the implementation of programmes (Blažek, Vozap, 2006). Namely, the SF interventions introduced new interventions, and in such circumstances, narrowing priorities and measures could have accentuated even more absorption capacity problems. Such issues are very relevant, particularly to new Member States, and even more so to countries in the process of accession, faced with complex institutional and capacity issues related to creating the initial systems for management of Pre accession funds.

Furthermore, despite the commonality of issues, and the prevailing role of EC Structural Funds approach in evaluation policy, it is becoming quite obvious that there is still no standardized approach to strengthening evaluation capacity development and developing effective monitoring and evaluation systems. As mentioned earlier, and due to constraints related to quality data collection, effective monitoring can be an extremely important tool for effective implementation of evaluation exercises.

Lack of a standardized approach, which is a major hindering stone for new Member states, and particularly those in the process of accession, is even more accentuated by the fact that in these countries institutional structures that would facilitate evaluation and the sharing of specific know-how and experience is missing (Blažek, Vozap, 2006). This constraint is even more accentuated by the fact that most evaluators in these countries often lack sufficient knowledge on the practice and techniques of evaluation as well as by the fact that the roles of evaluators and those drafting programming documents are not always clear – as a result of still undeveloped systems, capacity, institution and procedures. Such conditions result with the slowing down of the process of improving programming documents, thus not enabling the expected impacts on the basis of evaluation exercises.

Last, but definitely not least important, the independence of the evaluation function is a hotly debated issue as one of the key constraints in the current evaluation practice. These constraints partly relate even to the political environment and the still present weak demand for evaluation in many countries, the systematic problems that still exist in various countries

that hinder the application of sound evaluation systems, as well as limited internal capacities in terms of financial and qualified human resources.

Part of the mentioned constraints reflect the different philosophical approaches to evaluation as well as evaluation functions, as elaborated previously. Since evaluation practice is a relatively new one, on the basis of not only previous, but also current and future experience with evaluation exercises, it is probable that a number of changes will follow in the forthcoming years, enabling alternative approaches in evaluation practice as well as its further development and upgrading.

Notwithstanding the mentioned constraints, evaluation policy as implemented in the framework of the EC Cohesion policy is still considered as one of the best-managed in the Commission (Basle, 2006), and the obtained results enable their use in the process of reporting at all relevant EU levels.

5. TYPES OF EVALUATION AND ITS MAIN PRINCIPLES

5.1. Types of evaluation - cycles of the evaluation

Generally, there exist three main types of evaluation and they are the following.
- **ex-ante evaluation**: implemented prior to the start of a certain programme, i.e. parallel with the process of its preparation. It is most relevant in the course of defining results, indicators and development goals.
- **mid-term evaluation**: it is carried out in the middle of the programme cycle, i.e. in the midst of elaborating the medium term Review/Report with the goal of confirming that all instruments for achieving the goals have been defined. This type of evaluation is considered as potentially very relevant from point of view of improving performance and programme planning. However, this has still not been sufficiently confirmed in practice.

- **ex-post evaluation**: it is implemented one to two years after the programme termination, enabling thus reporting to the financial authorities on the results of activities and obligations in regard to the initially determined goals. In this period it is possible to measure the programme impacts. While Member states are responsible for previous types of evaluation, the Comission, in cooperation with the Member States, is in charge of this stage of evaluations.

Since evaluation is one of the main principles of EU Cohesion policy, it is the Cohesion policy which determines the types of evaluation according to the period in which they are carried out. In this regard, since strategic documents for certain countries (for example Country strategy papers) cover the period of 5-6 years - this determines the average evaluation cycle to proximately 8 years (with ex-ante evaluation carried out a year prior to, and ex-post evaluation one to two years after the termination of the development programme).

Types of evaluation can also be considered as parts of the cycles of development policies (policy cycles). This cycle logic begins with the formulation of a programme/policy and is continued through planning, allocation of resources, programme design, implementation, and realization of outputs and programme results. However, as mentioned in the segment which reflects upon some main shortcominga related to evaluation, these cycles also point out

to certain well known obstacles of the evaluation process from point of view that certain types/cycles of evaluation go parallel one with the other.

5.2. Main evaluation principles

Experience with evaluation based on the mentioned purposes and evident benefits, as well as the specific requirements of the socio-economic development policy, have resulted with a number of good practice rules that have proved to be of help in the process of planning, undertaking and use of evaluation. Among the most commonly used rules, or practical evaluation "principles" as drawn in the Commission sponsored Guide (Tavistock Institute with GHK and IRS) are the following :

- The purpose of evaluation is the   improvement of socio-economic development programmes – not the undertaking of evaluation for its own sake. When planning to undertake an evaluation it is necessary to determine how will the results of the evaluation task improve the lives of citizens, the prosperity and well-being of regions and the competitiveness of economic actors.
- In order to ensure that evaluations make their maximum contribution, it is extremely important to adjust their time cycles with the time cycles of development programmes and policies.
- Different stakeholders have different expectations of evaluation.. Involving policy makers and those responsible for programmes, as well as   finding out what their interests are in an evaluation and involving them in the process will ensure they take evaluation results seriously.
- It is necessary to fully integrate evaluation results into programme planning and management. Programme managers need to consider evaluation activities as a resource: a source of feedback, a tool for improving performance, an early warning of problems (and solutions), as well as a means of systematizing knowledge.
- Bridge building and team building is necessary in order to obtain good results from the diverse groups which are engaged in evaluations
- Evaluation is not only about looking back to rate success or failure and allocate blame. It can contribute to every stage in the programme cycle. In particular, at the earliest stage, its benefits are evident in strengthening programmes by helping to reveal weaknesses in programme design – allowing thus early remedial actions.
- Gathering large quantities of data in the belief that these will eventually provide answers to all evaluation questions is no longer acceptable since it is nearly always inefficient.
- It is important that evaluations be located within a certain policy context, i.e., to take into consideration policy debates and decisions in order to ensure that evaluations are sensitized policy priorities.

As can be seen on the basis of the mentioned most widely acknowledged good practice suggestions, i.e. "principles" of evaluation - as the result of nearly two decades of very extensive evaluation practice -   their taking into consideration is not only recommended to all those undertaking evaluation, but, rather, this good practice and the necessity for its acceptance is gradually being established in the form of required formal rules. These principles on the basis of such extensive conducting of evaluation exercises in the framework of EC Structural Funds approach are very relevant to those countries which are only paving the way for introducing evaluation policy within their own structural policy.

6.   EX-ANTE EVALUATION - ITS OBJECTIVES AND KEY COMPONENTS

We can define ex-ante evaluation as an interactive process providing judgment and recommendations by experts, separately from the planners, on policy or programme issues, with the main objective to improve and strengthen the final quality of the Plan or Programme under preparation.

This type of evaluation has to be carried out within the programme planning phase and involves a structured assessment of the social and economic situation in the programme area. Particular focus is given to issues such as the expected impact of proposed measures, analysis of the relevance of the proposed implementation and monitoring arrangements, environmental situation and equal opportunities (Bachtler and Wren, 2006).

In the framework of Structural policies, the ex ante evaluation process has the following objectives (The Ex-Ante Evaluation of the Structural Funds, 2000):
1. Assessment of whether the overall programme is an appropriate means for addressing the issues confronting the region or sector:

2. Assessment as to whether the programme has well defined priorities and objectives as well as whether it reflects an informed opinion as to whether these are relevant and can actually be achieved.

3. A contribution to the quantification of objectives and the establishment of a basis for monitoring as well as future evaluation work.

4. Analysis of the adequacy of the implementation and monitoring arrangements and support to the design of project selection procedures and criteria provided.

Considering the above acknowledged main objectives of the ex ante evaluation, this process has to facilitate a constructive dialogue between those responsible for a programme and the experts in charge of its elaboration. Of course, it is the public authorities which have the ultimate responsibility for the contents of the final document. Following previously mentioned, the evaluation task carried out by the expert evaluation team should take into account the following 6 main elements of a programme: Previous experience; the socio-economic context of the intervention; the strategic choices and the action priorities selected and their internal and external consistency; the quantification of objectives; the estimate of the expected socio-economic impact and the allocation of resources; the implementation system of the programme. Each of these elements should be part of the elaborated evaluation report, but with a varying degree of precision, according to the principle of proportionality (between major and small programmes).

In the framework of the Cohesion policy, the acknowledged methodology for ex-ante evaluation covers the whole programming system: Plans, Programmes, Programme Complement, even if the draft Plans submitted to the Commission are only at the level of Priorities and quantified objectives, in accordance with the regulations. From this point of view, if the evaluation process is to bring genuine added value and improved quality of the documents to be negotiated between the different partners, it must take into consideration the programming process in its entirety.

6.1 Key components of the ex ante evaluation

Herewith is a short description of the main 6 previously mentioned elements of a programme, which should also be considered as the main components of ex ante evaluation (EUROPEAN COMMISSION (2000):

1. Analysis of the previous evaluation results (Learning from past experience and results)
Previous evaluations are a very relevant source of knowledge. They often cover similar types of actions since many policies do not change much from one year to another or, indeed, from programme to programme. Evaluations carried out either by the Commission or at national level provide useful information by comparing the effectiveness of policies in specific fields as well as identifying best practice which often be transferable. From point of view of learning from past experience, ex ante evaluation can contributes to a better understanding of:

- The relevance of the existing strategy or the need for amendment.
- The effectiveness of existing policy delivery instruments.
- The critical factors affecting implementation and effectiveness.
- The types of problem in terms of policy availability and monitoring.

2. Analysis of the strengths, weaknesses and potential of the state, region or sector concerned
A very relevant important contribution of the ex ante evaluation is verifying the priority to be assigned to the various socio-economic needs. This prioritizing of needs is a precondition aimed at defining relevant strategic objectives and priorities. This component asks for an in-depth analysis of the socio-economic context.

3. Assessment of the rationale and the overall consistency of the strategy
The ex ante evaluation should help clarify the balance between the combination of policies and activities proposed in the plans, as well as the justification of the made choice. The rationale of the plan and the chosen policy mix is assessed by checking how each part of the programme ("priority area or axis") will contribute to the objectives. From point of view of **relevance**, the starting point, therefore, is a justification of the priorities according to the global objectives of economic and social cohesion. In this regard, employment and competitiveness are the most important ones. The priorities should also be justified on the basis of identified needs on the basis of the main disparities observed in the concerned regions or sectors. In regard to **consistency** the ex ante evaluation should address the internal consistency between Plan, programme and Programme Complement objectives. Furthermore, it should also address the external consistency of the Plan. Structural policy and interventions should be compatible with national macroeconomic and budgetary policy, as well as Community policies and rules.

4. Quantification of objectives
Quantification exercises relate to both the objectives of the Plan/programmes as well as the key disparities. They are the basis for any subsequent monitoring and evaluation of the programme. The classification suggested corresponds to the following chain of indicators:
Inputs ➔ *Outputs* ➔ *Results* ➔ *Impacts*
Relevant indicators need to be identified by way of ex ante evaluation in order to quantify impacts and results at the level of the Plan, programme and physical outputs, as well as at the Programme Complement level.

5. Evaluation of expected socio-economic impacts and justification of the policy and financial resources allocation
The ex ante evaluation has to gather information in order to understand the extent to which the Plan or the programme, along with its expected impacts and results, will contribute to the achievement of general and specific objectives. The ex ante evaluation has to demonstrate the sound foundation of the strategy and of the proposed financial resources allocation on the basis of its response to the needs stated as well as its expected impact.

6. Quality of the implementation and monitoring arrangements
The ex ante evaluation has to address the quality of the implementation, monitoring and evaluation arrangements envisaged as well as to assist the planning authorities in order to identify the necessary improvements, based also on past experience. This part of ex ante evaluation should provide the basis grounds for demonstrating how and why the monitoring and evaluation of the programme will represent an improvement in relation to past interventions.

Successful experience with ex ante evaluation is extensive in EU member states, including all the more the new Member states and, based on above mentioned principles and components, are very useful to countries which have only started introducing evaluation practice. In this regard, experience which ex-ante evaluation with the National Development plan in Ireland, (CSF, 1999; Hegerty, 2005), with the INTERREG II – A PHARE programme on cross border cooperation between Greece and Bulgaria, Ex Ante Evaluation of the South of Scotland Objective 2 Programme 2000-06 and other are a very useful starting point when considering evaluation approaches and systematic introducing of evaluation practice in countries which have only initial experience and are in the process of setting up institutions, building capacity for evaluation and embarking upon first evaluation practices.

7. FIRST EXPERIENCES WITH EVALUATION IN CROATIA

7.1. Current circumstances in Croatia

Croatia applied to become an EU member state in March 2003. In June 2004, Croatia officially received candidate country status. The target of the Croatian Government is the reaching of the level of internal readiness for EU integration by the end of 2007 and full membership in 2009. The EU membership negotiations started in October 2005 with a screening process and in October 2006 the screening of all 35 chapters of the Acquis Communautaire was completed.

Croatia has already undergone comprehensive and demanding reforms related to the EU accession process. A number of economic policy and strategy documents have been elaborated, such as the National Pogramme of EU Integration, Croatian Pre-accession Economic Programme 2006-2008 (PEP), National Development Framework, Economic and Fiscal Policy Guidelines and other, all emerging from or driven By the EU accession process (Samardžija, 2006).

PEP shows that the Croatian economy has achieved a considerable degree of macroeconomic stability. According to this document and data available within the Government's Strategic Development Framework, expected macroeconomic indicators for 2008 are the following: the

GDP real growth is expected to be 4,3% (3,8% in 2004 and 4,3% in 2005), GDP per capita should reach 8.342 euros, while inflation is expected to increase to 2.6% (in comparison with 2,1% in 2004.) and the budget deficit is expected to be reduced from 4,5% of GDP in 2004 to 2.9% (CODEF, 2006; Samardžija, 2006). However, the overall public debt is slowly rising (46,4% in 2004, to 47.8% in 2006 (est.) and the foreign debt, even though rising, is expected to decrease from the current 87,9% in 2006. Simultaneously, further rise in employment is expected (around 1% per year), and the current unemployment rate has decreased below 13% (Ott, 2006). One could conclude that the macroeconomic situation is quite favorable: increase of GDP, employment, budget deficit, moderate wage increase and appreciation of currency.

However, inflation is slowly rising, and, due to the rising deficit of the current account and foreign and public debt, Croatia can be included among highly indebted countries. In such circumstances, the process of introducing EU rule, standards and approaches, in line with the overall accession process, will simultaneously go hand in hand with the process of crucial further structural interventions and consolidation.

Adjustments related to compliance with EC evaluation policy and practice are carried out within the Framework of Chapter 22: Regional Policy and Coordination of Structural Instruments. The closing of this Chapter is soon expected and a number of activities and initiatives are currently being undertaken from the part of the main government bodies (including newly established agencies and institutions) which will be in charge of coordinating EC structural instruments.

The EC "Opinion on Croatia's Application for Membership for the EU" (European Commission, 2004) highlights that Croatia's regional policy mechanisms are at an early stage, and that considerable and sustained efforts to define strategies, create administrative structures and implement programmes will be necessary in order to allow Croatia, in the medium term, to apply Community rule and channel the funds from the EU structural instruments. Evaluation of development programmes is only one segment within this whole process, but, together with monitoring, a very relevant one in the field of adjustments in the segment of regional policy and coordination of structural instruments.

Reaching compliance with EC rule, requirements, practice and standards in this segment are only one of the reasons for systematically introducing evaluation of development programmes, based on benchmarks and introducing of best practice from other countries with much more experience with evaluation practice. Namely, it is a fact that Croatia is today negotiating for full membership of the EU and now finds itself at a social and economic turning point that will result in new opportunities and new challenges. However, the main goal that Croatia wishes to achieve (as stated within CODEF, 2006) is social prosperity through development and employment in a competitive market economy acting within a European welfare state of the 21st century. Introducing evaluation policy we perceive thus as a necessity, from point of view of achieving better accomplishment and accountability, as well as effectiveness of our public actions and development policy, regardless of the fact that it is also a requirement from the part of the EC in the process of accession and coordination of the current pre-accession funds, as well as future Structural funds.

From point of view of the discussed topic and first experiences, as well as further planned actions regarding evaluation of development programmes in Croatia, related mainly to the segment of regional development, the two main government institutions involved are The Central Office for Development Strategy and Coordination of EU funds (CODEF), and the

Ministry of Sea, Tourism, Transport and Development (MSTTD). CODEF is the key coordinating body for Croatia's preparation for management of EU Structural Funds (SF), and has started setting up the necessary administrative structures for the management of the IPA programme and corresponding programming documents, as the precursor to SF. MSTTD, on the other hand, has a mandate for the coordination of regional (county) development and was the government body in charge of elaborating the National Strategy for Regional Development (NSRD), with EU technical assistance, related to which the first experience of ex-ante evaluation is considered herewith.

7.2. Ex ante evaluation of the National Strategy for Regional Development

Only the first experience exists with evaluation so far, and this is basically in the segment of ex-ante evaluation. The first ex-ante evaluation according to EU guidelines and principles was carried out within the EU CARDS project in 2004-2005: National strategy for Regional Development. It was carried out by a team of experts from three institutions: Institute for International Relations, Zagreb; Faculty of Economics, Split; and Institute of Economics, Zagreb. Within the framework of this CARDS project, the capacity was raised of the evaluation team for ex-ante evaluation, but indirectly, initial evaluation capacity was also raised of the main stakeholders involved in the project. This first coherent project dealing with regional development in Croatia was evaluated in all its phases, priorly in line with the main ex-ante evaluation criteria, i.e.: rationale, relevance, internal and external coherence and consistency.

The evaluation task was carried out through continuous and dynamic interactive work with the experts in charge of the document – following each stage of the project as it was finalised, and, after thorough discussions and briefings with the team of experts engaged on the project, the evaluation results were integrated in the preparation, elaboration and final version of the document.

The evaluation team started initially as "outsiders", commenting on the first phase of the document as an adjacent team, not closely linked to the authors of the document. It was initially maybe even perceived from the programming team that the requirements of the evaluation team were sometimes far too critical, demanding and ambitious, and in this sense in the first phase of the project's elaboration were perceived maybe as a kind of pressure which might even delay the particular project's phases. However, this gradually changed already in the second stage of the project and the ex ante evaluators were perceived more as a technical assistance, cooperating very closely with the project team, as well s stakeholders, debating on all relevant problem issues and contributing with concrete proposals regarding the upgrading of the final document.

Regardless of the at later stages very close and constructive cooperation of the programming and evaluation team, the results of evaluation were completely independent and often very critical, with alternative views and proposals provided. The different "stages of cooperation" which were very evident in the framework of this project evaluation were actually also a process of learning how evaluators and programmers should cooperate effectively in order to reach a satisfactory result. It is important to note that this first ex-ante evaluation was carried out in circumstances of weak coordination and the horizontal and vertical levels between different policies programmes, and the relevant implementing bodies and structures. However, one of the purposes of this CARDS project was particularly the solving of this complex situation and activities related to it are still under way. The elaborated National

Development Framework, as well as newly established bodies with the main objective of strengthening overall coordination of development planning and programming are a very relevant step in this regard and will help to foster further evaluation exercises of plans and programmes which are due to be elaborated in the forthcoming period.

Value added of this first evaluation exercise was by all means the first such institutional capacity building for ex-ante evaluation, which exists today within the ex ante evaluation team, experts from the Directorate for regional development in the Ministry, as well as experts from other line ministries. With the process of negotiation with the EU in Chapter 22, Regional policy, under way, and the whole ongoing accession process, it is expected that this first know how and experience, as well as lessons learnt will be further developed and upgraded, and used for other similar plans and programmes which are due to be elaborated.

Evaluation as a process is gradually also being introduced through other means and institutions in Croatia. Ex-ante evaluation has been carried out in the framework of implementing development projects funded through the EC SAPARD programme. However, these were mainly externally conducted evaluations, i.e. from the part of foreign consultants, so the learning effects were not so useful. Also, it is worth mentioning the role of **the Fund for regional development,** which is among the first institutions which has given due importance to the introducing of the main principles of EU structural policy in practice, i.e. in the process of programming on the regional level. The Fund has also commissioned the elaboration of a study introducing the first ex post evaluation of socio-economic development programmes in Croatia, and results on the basis of implementing this type of evaluation on the case of programmes co-financed by this Fund are yet to be seen.

8.   CONCLUSIONS

The first experience with evaluation in Croatia has confirmed what had been confirmed in other countries also, i.e., that policy makers will perceive evaluation as necessary and relevant if evaluation assessments are turned into clear-cut public messages for policy makers, and if the policy-makers are required by partners to respond with information that only evaluation can provide (Barca, 2006).

The further introducing and raising of capacity for evaluation in Croatia is extremely relevant due to a number of reasons, among them first of all the following:

- ensuring transparency, efficient and effective management of development programs
- ensuring financial and other accountability of the programme managers
- ensuring maximum return of invested resources for development programms
- ensuring maximum socio-economic development impacts for the development of certain Croatian regions
- serving as a tool for the implementation of the policy of financing regional development in regard to "learning", as a direct outcome of systematic implementation of the evaluation process
- serving as a tool for implementing regional policy, since evaluation exercises explicitly point out the results of socio-economic development of the implemented development programms and policies.

Further to the mentioned reasons for further upgrading the existing evaluation methodology, and its incorporation into planning and programming, it is necessary to stress that monitoring and evaluation are one of the most relevant principles of EU Cohesion policy, and there is no question as to the needs for their incorporation within the current Croatian regional policy which is just at the moment being established on completely new grounds, based on new instruments, as well as a new legal basis. In this regard, it has to be clear at all instances and all levels that, without adhering to this EU principle, access to Structural funds, as well as pre accession instruments will not be feasible.

Regarding the above mentioned, it is necessary to master skills related to the implementation of the evaluation process in as short a period as possible in Croatia. Benefits from this will be visible through more effective future development programmes, but also through the development of a tool for continuous improvement of the regional development policy, as well as for financing regional development in Croatia. Last, but not least important, the effective implementation of this approach will facilitate the process of adjustment to EU requirements in the segment of regional policy and structural instruments, since, based on European Council Articles 40-44, from1999 the managing authorities of Structural Funds in each Member State are obliged to adopt the European evaluation procedures at both regional and national levels (Basle, 2006).

Along with mastering skills, it is necessary to establish formal coordination structures and introduce evaluation practice as an obligatory procedure. Further, introducing of evaluation practice in Croatia, based on experience in Austria (Huber, 2007) can be supported through the organization of a network for the exchange of experience among evaluators. Such a joint learning process is maybe a longer road, but will, in the longer term period, enable the development and further upgrading of evaluation practice further from a purely formal exercise. In this regard, while other bodies are still not established, the Government's working team for the negotiation with EU in Chapter 22: Regional policy and coordination of structural funds, could be used as a pivotal body, continuation to meet regularly, with its members (including experts, policy makers, key stakeholders, etc,), among other issues, sharing their views, knowledge and experience regarding initial evaluation practice at seminars and similar events, and discussing the further options for developing this practice in Croatia.

From point of view of initially considered approaches, it is our view that the organizational learning effects, so much addressed from the part of Batterbury, Esser and Nusmueller, Bachtler and numerous other, are of key importance when considering the approach to be taken in Croatia. The initial experience with ex-ante evaluation has confirmed this. We full agree that evaluation, if aiming at learning effects and policy improvements, should not be mixed neither with publicity nor with control and sanctions for failure. We are referring here to the previously mentioned conflict between accountability and learning . i.e. deciding whether the main purpose of evaluation was to justify expenditures or to learn, i.e. whether the role of the evaluator was to be a judge or moderator. The shortcomings are partly seen in the governance structure of the Structural Funds as well as the narrow focus of EC Cohesion policy evaluation - on improved planning, accountability and performance - with the other possibly useful functions such as capacity building and learning being neglected (Batterbury, 2006), which are crucial for enhancing the quality of the programme.

While systematically introducing evaluation in Croatia – from institutions, to raising capacity for evaluation, developing own approaches and methods, it is relevant that both evaluators as well as policy makers in Croatia are aware and well acquainted with the current debates and often quite conflicting views regarding approaches to evaluation, including the mentioned weaknesses and present main constraints – at times considered even as "failures" of evaluation policy. Such awareness from their part is crucially important regardless of the fact whether we are referring here to previously in more detail elaborated constraints related to different approaches and methods of evaluation, the still present centralized approach in evaluation policy, low level of capacity, different approaches in regard to either enabling the learning process and organizational learning, or, rather, focusing on justifying expenditures, but also on obstacles such as data collection, time adjustments of evaluation, not to mention too demanding requirements from the part of evaluators and numerous other (Batterbury, 2006, Bachtler, 2006, Blazek and Vozap, 2006 and other).

Insight into all the relevant and in this paper often referred to EC Cohesion policy evaluation guidelines and principles, but even more so, the existing practice and immense experience based on carried out evaluation exercises in EU member states, including the most recent members - will surely lessen at least some of these obstacles and shorten this learning curve in Croatia, and serve thus as very valuable experience as the basis to build upon, and, hopefully, enable also contributions from the part of Croatian experience which will enhance future impact of public actions and organizational learning in Europe. While fostering this process, we can agree with Basle (Basle 2006), that it is important to bear in mind that evaluation practice cannot be perceived as purely scientific research – but should be looked upon as a challenge in producing directly useful knowledge that is of value to society – i.e. as participation in the European "knowledge based society".

Reflecting upon the stated main goals, objectives and purpose of evaluation, as well as its relevance for the development of efficient and effective development programming and implementation of Croatia's regional policy - one can hardly deny the fact that introducing evaluation of development programmes in Croatia can definitely not be perceived as just an option, hardly an obligation, but only and indisputably as an extremely relevant necessity - from point of view of overall management of socio-economic development of the country as well as its regional development. The Structural Funds approach in evaluation policy can be an excellent starting point in this process of introducing evaluation practice effectively and efficiently in Croatia. From point of view of mentioned obstacles and still present constraints of this "EC approach", it is a big challenge for Croatian evaluators, other experts, jointly working with policy makers and relevant stakeholders, to contribute to the generation of new approaches, methods and tools, with the ultimate aim of lessening present weaknesses in evaluation policy.

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REGIONAL INTEGRATION IN SOUTH-EAST EUROPE

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Abstract

In the past 20-30 years the term globalization has taken hold to denote the processes of changes and economic, social, technological, cultural and political integration of countries. In economic terms, globalization means formulating the rules of a single world market in order to stimulate competition and development. However, experience shows that globalization can have the opposite effect, i.e. it can stifle development and competition, since it enables big companies to use their substantial capital to capture new markets and prevent the development of competitors.

The process of globalization started back in 16th century, with the first marked expansion of European capitalism; the waves of expansion were particularly noticeable in the late 19th century and after the Second World War. In contrast, the interval between the two wars was the period of explicit protectionism, with the USA and Germany at its forefront.

Since 1990s, after the fall of the Berlin Wall and demise of socialist planned economy, the process of globalization, or liberalization of international trade, has been expanding continuously. It is fair to say that it has benefited both the developed and developing countries.

Nevertheless, in the past ten years momentum was lost for global trade under the aegis of the WTO, and regional trading blocks (currently around twenty in the world) have been gaining in significance. They range from free trade zones, customs unions, to common and single markets.

1. INTRODUCTION

Globalization – the growing integration of economies and societies around the world – has been one of the most discussed topics in international economy in recent years.

The fast growth of economies which used to be poor only 20 years ago, such as China and India, shows positive impacts of globalization. On the other hand, globalization generates also significant international opposition due to concerns over increased stratification of society, the widening gap between rich and poor, and environment degradation.

Supported by technological advances, trade liberalization and the growing importance of supranational rules, globalization today submits national economies to the most intensive competition ever.

Globalization is a process involving almost all the aspects of the society. In economic terms, the most significant driving forces of globalization are the internationalization of production, expansion of international trade, and international capital flows. These three factors are reflected in increasingly free flow of goods, services, technologies and capital, all of which have been supported by improvements in transport and communications.

In spite of huge differences in the level of development between particular regions in the world, each region has to find its own way and strategy in order to meet the challenges of globalization.

2. ECONOMIES IN TRANSITION AND GLOBAL ECONOMY

The countries in transition are having a difficult time trying to integrate into the global economy, because the region where most of these countries are located used to be virtually cut off from the world until late 1980s. At the same time, these countries are going through the process of transition from predominantly centrally planned socialist economy to market economy based on private ownership.

It is for this reason that the processes of transition and integration into global economy are necessarily intertwined, since no country can become a part of the global market without transforming a planned into a market-oriented economy.

Over the past 15 years, South East Europe countries have made considerable progress in the transition process and simultaneous integration into the world economy, although there are significant differences between them.

The most important factors leading to these differences are as follows:

- achieved level of transition – the countries that have successfully carried out the transition process are the ones who have best managed to become integrated into the global economy;
- achieved level of institutional integration – signing the EU association agreement and beginning the accession negotiations are important factors contributing to the integration into the global economy.

The goal of every country in transition is to reach the level of economic and social development present in the developed industrialized countries.

For most countries in the region, accession to the EU is the last step of the transition process. On the other hand, the EU has determined a set of criteria that would-be members have to fulfil before accession (Copenhagen, 1993). In addition to the political (stability of institutions which guarantee democracy) and legal criteria (adoption of acquis communautaire) there are two economic criteria:

- market economy established
- the country's economy should be capable of tackling the competition pressures from the EU markets.

The two criteria clearly indicate that the results expected from the transition processes are identical to meeting the conditions for EU accession.

Monitoring certain macroeconomic indicators in the countries in transition can best demonstrate the advances they have made.

The EBRD assesses progress in transition through a set of transition indicators. These have been used to track reform developments in all countries of operation since the beginning of transition. Progress is measured against the standards of industrialised market economies, while recognising that there is neither a "pure" market economy nor a unique end-point for transition.

The measurement scale for the indicators ranges from 1 to 4+, where 1 represents little or no change from a rigid centrally planned economy and 4+ represents the standards of an industrialised market economy.

Assessments are made in nine areas: Large scale privatisation, small scale privatisation, governance and enterprise restructuring, price liberalisation, trade and foreign exchange system, competition policy, banking reform and interest rate liberalisation, securities markets and non-bank financial institutions, and infrastructure. [1]

Table 1. Transition indicators – Southeast European Countries

	Large scale privatisation	Small scale privatisation	Governance and Enterprise restructuring	Price liberalization	Trade and Foreign exchange
Albania	3,0	4,0	2,33	4,33	4,33
Bosna & Herzegovina	2,67	3,0	2,0	4,0	3,67
Croatia	3,33	4,33	3,0	4,33	4,33
Macedonia	3,33	4,0	2,67	4,33	4,33
Moldova	3,0	3,67	2,0	4,33	4,33
Montenegro	3,33	3,0	2,0	4,0	3,33
Serbia	2,67	3,67	2,33	4,0	3,33
Bulgaria	4,0	4,0	2,67	4,33	4,33
Romania	3,67	3,67	2,67	4,33	4,33

Source: EBRD – Transition indicators by country (data until September 2006)

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[1] EBRD : Transition report 2005.: Business in transition, www.ebrd.com

Table 2. Transition indicators – Southeast European Countries

	Competition Policy	Banking reform	Securities markets and non-bank financ. institution	Overall infrastructure reform
Albania	2,0	2,67	1,67	2.0
Bosna & Herzegovina	1,67	2,67	1,67	2.33
Croatia	2,33	4,0	3,0	3,0
Macedonia	2,0	2,67	2,33	2,33
Moldova	2,0	2,67	2,0	2,33
Montenegro	1,0	2,67	1,67	2,0
Serbia	1,67	2,67	2,0	2,0
Bulgaria	2,67	3,67	2,67	3,67
Romania	2,67	3,00	2,00	3,33

Source: EBRD – Transition indicators by country (data until September 2006)

The data for the countries in South East Europe indicate that basically all the countries have made some progress, especially in price liberalisation, trade and foreign exchange system and large and small privatisation. The smallest advances have been made in the banking reform, competition policy, securities markets and non-banking financial institutions.

Judging by the above indicators, Croatia has made the biggest advances in transition in comparison to the other countries in South East Europe, and received better ratings even from Bulgaria and Romania who became full EU members on 1 January 2007.

After Croatia, the country closest to the standards of developed economies is Macedonia, whereas Bosnia and Herzegovina and Serbia are only beginning with the reforms in a number of areas.

To overcome these differences more easily and to enable all the countries in the region to gain maximum benefits from joining the global economy, the logical solution seems to be regional association as the first step towards global integration.

It should be noted, though, that globalization and regional association are two processes taking place under the influence of completely different forces. Globalization is unfolding primarily through the influence of world's strongest economies and multinational companies, whereas regional associations are based on agreements signed by member states' governments, which frequently contain temporary protection measures for their economies alongside generally accepted liberalization of trade.
These measures aim to enable the countries in the region to raise their international competitiveness within the region before subjecting themselves to the competition on the global market.

Regional integration is the institutional unification of independent national economies to bigger economic entities.

Regional cooperation will often be facilitated by the creation of an economically integrated area, so that the success of regional cooperative efforts is to some degree dependent on the institutionalised unification in terms of integration.

Research on regional integration has mainly considered the conditions for an efficient use of resources on a regional basis. This includes the elimination of all barriers on mobility of goods and factors, but also the creation of efficient markets and institutions supporting the integration.

3. REGIONAL ASSOCIATIONS OF THE COUNTRIES IN TRANSITION

3.1. CEFTA

Since the disintegration of the Soviet Union and Yugoslavia, and the fall of the Berlin Wall, old and newly-formed countries of central, eastern and south-eastern Europe found themselves in completely new circumstances related to internal political, economic and social changes, as well as to their changed status and relation to the rest of Europe and the world.

From the very beginnings of transition, trade and trade relations with foreign countries had become an important part of the process. The ratio between foreign trade and GDP increased sharply as a result of growing foreign trade on one hand and decreasing GDP in the early stages of transition on the other. In addition, foreign trade of these countries went through a significant geographical reorientation.

Resulting from the need to prepare the economies of the countries in transition for their accession to the EU, which was something most of these countries aspired to, the first CEFTA (Central European Free Trade Agreement) was signed in 1992 in Krakow between Hungary, Poland and (at the time still existing) Czechoslovakia, as an instrument for cooperation of central European countries at economic level. The agreement envisaged the gradual abolishment of tariffs between the member countries. The Protocol on rules of origin of goods was an integral part of this agreement.

One of the main tasks of CEFTA was to prepare its members for the accession to the EU through participation in free trade zones.
 Slovenia joined CEFTA in January 1996, Romania joined in 1997, Bulgaria in 1999, Croatia in 2002, and Macedonia in 2006.

According to the original agreement, membership criteria were as follows:

- European Union Association Agreement with
- World Trade Organisation membership
- free trade agreements with the current CEFTA member states
- consent of all the member states.

Having become full EU members, Poland, Hungary, the Czech Republic, Slovakia and Slovenia ended their membership in CEFTA in 2004.

The impact of CEFTA was considerable in the trade between the member states, but also in the trade with the EU markets. Thus, in case of the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia, the trade with the EU in 2003 (i.e. immediately before their accession to the EU) accounted for 60 % of their total foreign trade. The increase in the trade with the EU was especially noticeable with Slovakia, where the trade with the EU increased

from 30% to 60% within 10 years, and with Romania, where the share of the trade with the EU grew from 40% to 60 % in the same period.[2]

Looking at the countries of South East Europe which were not CEFTA members at this time, one can also notice a marked growth of trade with the EU in case of Bosnia and Herzegovina and Macedonia (from 30% in 1993 to 50% in 2003). As for Croatia, there was stagnation in the trade with the EU, which stood at around 50% in these 10 years. Over the last two years (since the EU was enlarged by 10 new member countries) the EU share in Croatian exports increased to 64.5% in 2004 and 62.1% in 2005, whereas its share in Croatian imports was 69.5% in 2004 and 65.6% in 2005.

Among the countries of South East Europe, Albania is the one with the strongest orientation towards the EU market. With Italy as their main partner, Albania's foreign trade is directed towards this market up to 80%.

3.2. Southeast Europe

Unlike Central European countries, whose regional association was primarily aimed at preparing these countries for the EU single market, regional association of Southeast European countries is in the interest of the European Union, not only for economic, but also for political reasons.
As a result of the war in former Yugoslavia, the common market has disintegrated, together with communications and distribution channels. All this led to a significant decrease of trade between the newly-formed states. In the following years, political relations between the states caused divergence of trade, so that it was re-established, but only between some countries (i.e. Croatia - Bosnia and Herzegovina), whereas trade between some countries is still at a very low level (Croatia - Serbia).

Furthermore, the scope of trade is determined by the development level of particular countries in the region as well. The most important macroeconomic indicators for Southeast European countries (according to the EBRD data) are given in Table 3.

Table 3.   Selected macroeconomics indicators Southeast European Countries 2005.

	Population mill	GDP USD Per capita	Import mill USD	Export mill USD	Trade balance mill USD	Unemployment %	External debt Stock mill USD	Inflation %	Foreign Invest. mill USD
Albania	3.1	2.730	2.539	671	-1.868	14,7	1.747	2,0	265
B & H	3.8	2.425	5.195	2.072	-3.123	44,5	2.586	1,4	300
Croatia	4,4	8.674	18.547	8.809	-9.296	12,3	30.220	3,0	1.059
Macedonia	2,0	2.850	3.092	2.011	-1.052	36,5	2.253	0	97
Moldova	3.6	862	2.256	1.094	-1.162	6,4	1.991	12,0	225
S&CG	8,3	3.177	11.447	5.055	-6.422	31,7	16.021	15,5	2.020

Source: EBRD Transition report 2005: Business in transition

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[2] M.Bussiere, J. Fidrmuc, B. Schnatz : Trade Integration on the new EU member states and selected South astern European Countries: Lessons from a gravity model, Conference on European Economic Integration, Vienna, 2004., pp..5

Croatia has the highest GDP per capita, as much as 10 times higher than Moldova. Inflation is under control in all the countries except Moldova, but most of the countries are facing unemployment as the most acute problem.

Trade balance is unmistakably negative in all the countries. Coverage of imports by exports ranges from only 26% in case of Albania, to the highest figure of 65% in case of Macedonia. In Croatia, the export/import ratio is only 47.5%, but total foreign trade of Croatia accounts for as much as 43% of overall foreign trade in the region. Furthermore, export per capita in Croatia is several times higher (2002 USD) than in the other countries of the region (Macedonia 1020 USD, Serbia and Montenegro 609 USD, Bosnia and Herzegovina 545 USD, Moldova 303 USD and Albania 216 USD). On the other hand, Croatia has the highest external debt, accounting for 55% of total foreign debt of the region.

All the countries of the region have intra-regional bilateral free trade agreements and preferential free trade agreements with the EU.

The five countries have been benefiting from duty free access to the EU market for almost all goods, only limited by particular conditions for textile and agricultural products, via a set of autonomous trade measures unilaterally granted by the EU. The Stabilisation and Association Agreements (SAA) that have been signed between the EU and the FYR Macedonia and Croatia respectively furthermore provide the economies with progressive reciprocal free trade of goods.
Negotiations with Albania to sign the SAA have started in 2003 and are under negotiation with Bosnia and Herzegovina and Serbia and Montenegro.
The EU today has emerged as the most important trading partner for all countries (Table 4)[3] except Moldova whose foreign trade is more than 50% directed towards the countries of former Soviet Union.

Table 4   Trade with the EU 2005.

	Export in EU % of total export	Import from EU % of total import
Albania	83,5	71,4
Bosnia & Herzegovina	69,1	66,0
Croatia	61,4	65,0
Macedonia	53,1	58,8
Moldova	27,4	32,9
S & CG	51,4	54,2

Source: European commission: EU- External trade 2005.

In terms of EU trade, however, overall trade of all the countries in the region is almost negligible. Their total exports into the EU in 2005 were about 0.7% of total EU imports, and EU exports into these countries were 1.87% of total EU exports. More than 50% of total trade described here is accounted for by Croatia.

The trade between individual Southeast European countries is not well developed either. The most intensive trade is going on between Croatia and Bosnia and Herzegovina. According to 2005 data, Croatia exported goods to B&H in the amount of 1,260.5 million US dollars,

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[3]European commission : EU- External trade 2005., http://ec.europa.eu/trade/issues/bilateral/data.htm

accounting for 14.3% of total Croatian exports in 2005. In comparison to 2004, the exports grew by 9.1%.

Bosnia and Herzegovina is one of the few countries with which Croatia has a positive balance of trade. At the same time, Croatia is one of the biggest importers from B&H.
In 2004 B&H imported goods worth 5,013 million US dollars. The value of goods imported from Croatia was 1,153 million US dollars (20% of total B&H imports). Total B&H exports were worth 1,153 million US dollars, out of which 453.1 million US dollars, or 23%, were exported to Croatia.

There is also significant trade going on between Macedonia and Serbia, and between Serbia and Bosnia and Herzegovina. Although total trade between the countries in the region has been growing steadily in recent years, its volume continues to be quite modest.

4. THE NEW CEFTA

The new enlarged agreement was initialled on 9 November 2006 in Brussels and has been signed on 19 December 2006 at the South East European Prime Ministers Summit in Bucharest. Ratification is to take place before 31 March 2007, and the new CEFTA treaty will come into force on 1 May 2007.

The agreement was signed by Albania, Bosnia and Herzegovina, Montenegro, Croatia, Macedonia, Moldova and Serbia.

To give all the countries in South East Europe the opportunity to join the CEFTA, the criteria are now much more lenient compared to the first CEFTA treaty. The new criteria are as follows:

- WTO membership or commitment to respect all WTO regulations
- any European Union Association Agreement
- Free Trade Agreement with the current CEFTA member states.

The signing of the agreement was preceded by threats of boycott from Bosnia and Herzegovina which demanded protection of its agricultural products, and from Serbia which refused to decrease excise taxes on imported cigarettes. However, Croatia persisted in its stand that the provisions agreed upon in bilateral treaties should be incorporated in this multilateral agreement.

The extended CEFTA treaty has substituted the network of 31 bilateral free trade agreements signed by the countries in South East Europe. In this way, more than 90 per cent of trade and almost all trade of industrial products have been liberalized.

The treaty brings together and updates the trade rules in the region; in addition, it includes modern trade provisions such as market competition, public procurement and the protection of intellectual property. The treaty will ensure the convergence of relevant trade regulations, particularly with respect to industrial, as well as sanitary and phytosanitary regulations.

The result is a unitary, simplified system of regulations which should facilitate the trade in the region. By turning the region into a consolidated market, CEFTA will also make it more interesting to foreign investors.

Furthermore, CEFTA will definitely help the countries that are not yet WTO members to prepare for membership, since both processes are based on the same goals and rules of progressive liberalization and open trade.

5. DISCUSSION

In the publication Regional cooperation in the Western Balkans: A policy priority for the European Union[4], European Commission proposed a free trade zone to be formed between the five countries of Western Balkans already included in the process of stabilisation and association.

"Development of regional cooperation is in the best interest of all the western Balkan countries: it is a key factor for establishing political stability, security and economic prosperity.

Regional cooperation is also a specific requirement under the stabilisation and association agreements, which are already in place with the Former Yugoslav Republic of Macedonia and Croatia.

In this context, regional cooperation is therefore a cornerstone of the EU's policy framework for the western Balkans — the stabilisation and association process, which offers to the countries of the region the possibility of eventual EU membership."

How far can the new CEFTA really contribute to the economic development and improvement of relations between Southeast European countries and their advances towards the EU?

It is to be expected that a decrease of barriers will facilitate the revival of trade and accelerate economic growth. However, this will be far from enough to achieve the goal of fast-paced economic development, and imminent EU accession. In other words, the removal of trade barriers alone will not make a substantial difference in the relationship between the region and the EU.

Individual countries must be prepared to carry our more radical reforms, and increase investments into infrastructure, education, research, employment, and development.
The critical issue here is how far will the European Union itself participate and help to spur the region's development.

Being the most developed country in the region, Croatia is in a particularly sensitive position. By taking advantage of CEFTA membership it can gain economic benefits and also help other countries in the region to accelerate their reforms. However, Croatia should by no means

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[4] European Commission (2006) Regional Cooperation in the Western Balkans: A Policy Priority for the European Union, Office for Official Publications of the European Communities, Luxemburg, 2006.

allow CEFTA membership to be an impediment to the country's accession to the European Union.

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UKRAINE'S POLITICAL ECONOMY AND COMPETING REGIONALIST STRATEGIES OF DEVELOPMENT[1]

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                   Single Economic Space, Russia

1. BETWEEN RUSSIA AND EUROPE

1.1. The two vectors

Ukraine's political and economic development since 1991 has been driven by a strategy of geopolitical oscillation between the European Union (EU) and Russia. Prevailing foreign policy orientations determined politics at home. Thus, the main vectors of Ukraine's domestic and foreign economic policy over the last decade and a half have been the so-called European and the Russian vectors. The former presupposes orientation toward Europe and a goal of eventual membership in the EU. The latter implies orientation toward closer economic ties with Russia and the Russia-led Single Economic Space (SES).

The 2004 Orange revolution seemingly tilted the balance in favor of the European integration strategy. After the revolution, the new Ukrainian leadership affirmed the EU membership as its first priority. However, Ukraine's membership application to the EU has been discouraged by the EU Commission and soon undermined by political-economic developments at home. The oligarchic way of managing the economy has reasserted itself amidst widespread accusations of corruption in the top echelons of the Orange elite.

Since 2004, Ukraine has not moved any closer to the EU, but managed to isolate itself from Russia and the SES. The "orange" coalition treated the two "vectors" as alternatives and made decisions that were arguably detrimental to Ukraine's national interests. The strategy of

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playing Russia against the West has risen suspicious on both sides and triggered a reversal of Ukraine's economic fortunes.

There exists little evidence to suggest that Ukraine could not benefit from developing its relations with Russia and the EU simultaneously. Theories of new regionalism suggest that Ukraine's transition to an open market economy would get a boost from participation in the Single Economic Space. However, Ukraine's regional integration strategy is presently opportunistic, lacks coherence, and suffers from a Manichean "either-or" approach towards Russia and the European Union.

1.2. Ukraine and Russia after 1991

The break-up of the Soviet Union saw huge economies parcelized into relatively small fiefdoms, which were by and large run by former communists turned ethnonationalist entrepreneurs. Apart from the huge defense and security outlay, which none of them, Russia included, were prepared to pay on their own, it soon became obvious that not a single of these newly born nations possessed a viable market economy. For most, global trading was not an option as economic infrastructure inherited from the "ancien regime" made even unsystematic forays on external markets prohibitively costly. A full-blown immersion in the world market economy without extensive preparations and a prolonged transition would be plain suicidal. Ukraine also suffered from the breakup of manifold ties that connected it closely with Russia. Intimate interdependency that developed between the two nations was based not only on economic and political, but also cultural, demographic, and familial intermeshing. Ethnic Russians constitute close to one-fifth of the population in Ukraine, while more than 4 million Ukrainians are citizens of the Russian Federation. Interethnic marriages between the two nationalities are commonplace. Up to 3 million people migrate to Russia from Ukraine annually in a search of seasonal and other temporary work.[2]

Even when compared to other post-Soviet states, Ukraine stood apart in the degree of its economic vulnerability and outright dependency on the Russian import and export markets. The Russian Federation remains Ukraine's largest trading partner, currently accounting for about 22 percent of Ukraine's exports and more than 36 percent of its imports.[3] Most crucially, Ukraine is fully dependent on Russia for energy supplies. Close to 70-75 percent of the country's annual consumption of gas and close to 80 percent of its oil demand are covered by imports from Russia, and Ukraine relies on Russia for up to 85 percent of all nuclear power plant equipment and raw materials.[4] When the Soviet patronage ended, Russia continued financing up to 22 percent of Ukrainian GDP with subsidized credits. The ten-year value of Russian energy subsidies to Ukraine was estimated at $12.6 billion.[5] Throughout much of the nineties, Russia sold its gas to Ukraine at prices roughly 35-40% of world prices,

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[2] Yuri Yevdokimov and Mikhail Molchanov, 'The Orange Revolution: Promises and Demises', *Mechanism of Economic Regulation: International Scientific Journal*, 2 (2006), 163-179.
[3] Derzhkomstat Ukrainy, Sotsial'no-ekonomichne stanovyshche Ukrainy za 2005 rik, January 23, 2006. Retrieved from http://www.ukrstat.gov.ua/, 10 January 2006.
[4] Margarita M. Balmaceda, *Explaining the Management of Energy Dependency in Ukraine: Possibilities and Limits of a Domestic-Centered Perspective*. Mannheimer Zentrum für Europäische Sozialforschung (MZES) Working Paper No. 79 (Mannheim: MZES, 2004), 8.
[5] Anders Aslund, 'Eurasia Letter: Ukraine Turnaround,' *Foreign Policy* 100 (1995), 127, 139; Gregory V. Krasnov and Josef C. Brada, 'Implicit Subsidies in Russian-Ukrainian Energy Trade,' *Europe-Asia Studies* 49.5 (1997), 837.

although occasionally Ukraine had to pay more, in part because of Russian excise taxes.[6] In spite of the vast amount of subsidies, Ukraine's energy debt to Russia, restructured in 1995 with western mediation, had grown again to $1.4 billion by 2003 and prompted Russian demands for some form of settlement, if not in cash, then in equity.[7]

In face of these realities, a search for an ersatz "free trade" agreement (FTAs) with former Soviet sister republics became unavoidable. After all, these were parts of the same economic complex and shared extensive similarities. Even more importantly, they were designed (by socialist planners) to complement each other, providing goods and services that no other part of the old country would provide. Production chains ran across the border, and mutual dependencies accounted for a significant drop in production that most of these republics experienced in the first decade of their postcommunist transition. Regional blocs such as the Single Economic Space (SES) were suggested as a means of improving post-Soviet economies given the states' similar circumstances. The prospect of the SES has been troubled in large part due to the Ukrainian leadership simultaneously seeking a closer relationship with the European Union, often giving the EU preference over post-Soviet, and particularly Russian, reintegration.

1.3. Ukraine and Europe

A country with a population of 48 million, located on the intersection of strategic energy transportation routes between Russia and the West, Ukraine geographically belongs with Europe. Judging by its foreign policy, Ukraine has been an important ally of the West, and is the fourth-largest partner in the Coalition forces in Iraq (after Great Britain, Poland, and Italy). Culturally, it is a Christian nation with strong Western leanings. Until the Orange Revolution in 2004, it had one major deficiency: a corrupt and intrinsically authoritarian political regime that ran the country in a neo-patrimonial fashion, as an assemblage of regional fiefdoms that were held together by networks of patronage, asset-stripping and jockeying for higher offices that could be used for personal enrichment. Misappropriation of the western loans and aid moneys became one of the regime's trademarks that could hardly sit well with its pronounced European aspirations. Illegal re-exportation of subsidized Russian imports, gas and oil in particular, provided yet another prominent source of rents.

Consequently, the European Union has not shown much support to the idea of Ukraine's prospective membership. Initially, Europe looked at Ukraine as a Soviet heir par excellence. One major concern was with Ukraine's readiness to carry out those Soviet obligations that could reasonably be seen as falling into its sphere of competence: the closure of the Chernobyl nuclear power plant and the ascent to the Nuclear Non-Proliferation Treaty. Later on, bilateral relations were moved mostly by western recognition of Ukraine's importance as a security buffer separating the EU from Russia.

In terms of trade, the share of the European countries (EU-25) in Ukraine's merchandise exports steadily grew and matched that of Russia in 1997-98. As Ukraine surfaced as one of the leading producers of steel and cast iron in the world, the EU slapped quotas on Ukrainian steel imports. Judging by the EU protectionist yardstick, more than two thirds of Ukraine's

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[6] Arkady Toritsyn and Eric A. Miller, 'From East to West, and Back Again: Economic Reform and Ukrainian Foreign Policy,' *European Security*, 11.1 (2002), 102-126.
[7] Yevdokimov and Molchanov, 'The Orange Revolution.'

exports were sensitive goods, and therefore subject to restrictive regulations and controls.[8] These import controls severely restricted Ukraine-EU trade in precisely those sectors where the emerging economy could benefit the most. Economic fallout from the EU antidumping policies has severely damaged Ukrainian producers. As Anders Åslund chose to put it,

> Ukraine is subject to extreme trade discrimination from the EU… it is not a member of the WTO, and it has no free trade agreement with the EU, while its Partnership and Cooperation Agreement (PCA) with the EU has turned out to be almost empty. It suffers badly, having little trade with the EU and enjoying comparative advantages in products, whose importation the EU resists.[9]

It is also important to note that the EU does continue to fund Ukraine significantly. By the turn of the century, the EU had become Ukraine's biggest international donor, disbursing close to €50 million annually through its TACIS national programme alone, to the grand total of €248.1million over 1991-2005.[10]

It took some time before the EU gave Ukraine the status of a transitional economy, which marginally improved its terms of trade with European countries. Subsequently, Kiev's lobbying of the European leaders and the Commission bureaucrats was crowned with achievement when Ukraine was granted market economy status in December 2005. As will be discussed below, there remains some question as to whether Ukraine truly is a market economy, or whether this was used as a political tool to congratulate Ukraine for its pro-European stance following the Orange revolution. Although in 2004, EU-Ukraine trade amounted to €17.6 billion (about $21.85 billion), Ukraine's participation or non-participation in the European markets does not matter much as far as Europe is concerned: Ukraine's share of the EU total trade is less than one percent. By comparison, Ukraine accounts for about 6-7 percent of Russia's overall trade.[11]

Trade issues apart, Ukraine has demanded that the EU take its membership aspirations seriously. Kiev met with dismay concerning the EU's decision to formally separate the 2003 "Wider Europe—Neighborhood" initiative from the question of possible future accession. When speaking to the European Economic Forum in Warsaw in April 2004, Leonid Kuchma stated, "We don't ask much from the European Union, we only want to find out whether the European Union wants to see Ukraine among its member-countries or not."[12] Judging by all indications, the answer was that it did not. The European neighborhood policy adopted by the European Commission in May 2004 was specifically designed as a substitute to an association

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[8] Address by the President of Ukraine to the Verkhovna Rada of Ukraine on Internal and External Status of Ukraine in the Year 2003, as translated by the European and Comparative Law Centre, Kiev, Ukraine. Retrieved November 15, 2005 from http://www.eclc.gov.ua/new/html/eng/7/address_president_2003_en.html

[9] Anders Åslund, *A Foreign Trade Policy Strategy for* Ukraine, Ukraine UNDP Trip Report, 31 March 2003, Retrieved from http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=1225, 18 December 2006.

[10] European Union, The EU's Relations with Ukraine, November 2005. Retrieved from http://europa.eu.int/comm/external_relations/ukraine/intro/, 18 December 2006.

[11] European Union, The EU's Relations with Ukraine; European Commission, Trade Issues, http://europa.eu.int/comm/trade/issues/bilateral/countries/ukraine/index_en.htm; National Bank of Ukraine, Balance of Payments of Ukraine, http://www.bank.gov.ua/ENGL/Balance/index.htm, all accessed 18 December 2006.

[12] 'EU warns Ukraine against deeper integration in single economic space,' *ITAR-TASS*, 30 April 2004, 20.05.

agreement, which Kiev hoped to get.[13] Even as president-elect Yushchenko stressed, "We are the center of Europe," and proudly asserted that Ukraine's "place is in the European Union,"[14] the opinion in Brussels was that, future plans notwithstanding, "now the journey is not for European Union membership."[15] Romano Prodi, President of the European Commission, once said that "Ukraine has as much chance of joining the EU as New Zealand."[16]

More recently, EU Commissioner for Enlargement Günter Verheugen proclaimed that "in twenty years all European states will be members of the EU, with the exception of the successor states to the Soviet Union that are not yet part of the EU today."[17] In October 2006, during a joint press conference with President Yushenko, Prodi stated that Ukraine had not enacted sufficient economic and political reforms, adding "Ukraine is not ready, and we are not ready." Rather than beginning membership talks, the two sides reached an agreement in principle to begin negotiations in 2007 to improve cooperation on "trade, diplomacy, justice and environmental protection," and signed an agreement to ease visa requirements for Ukrainians wanting to work in the EU.[18] With the goal of long-term membership in the EU being once again shelved, this will no doubt be regarded as yet another setback to both the Ukrainian leadership and the Ukrainian public.

After the Orange revolution, Ukrainian leaders have opted for a clear preference of the European vector over the Russian one. However, there is some indication that closer ties to Russia could improve Ukraine's economic development, and that participation in the Single Economic Space could help move Ukraine towards a more open market economy. Ukraine's regionalist strategies have changed since the March 2006 elections, and many Ukrainian economists and political scientists still regard the SES as an alternative to the EU. Currently, Ukraine is a member of the following regional blocs formed on the territory of the former Soviet Union: Commonwealth of Independent States (CIS), GU(U)AM, Single Economic Space (SES), Black Sea Economic Cooperation (BSEC), Eurasian Economic Community (EEC, observer status). Therefore, regionalist strategies of Ukrainian development should be seen in the light of the goals Ukraine has in these blocs. In particular, Ukraine's membership in GUAM was viewed as a way to create an alternative to the CIS that would specifically include Russia. Seeing Russian reintegration efforts as a threat, the four current members (Georgia, Ukraine, Azerbaijan, and Moldova) laid claims to a "European identity." However, the degeneration of this project into a state close to oblivion can in no small part be attributed to its failure to create a solid regional economic foundation for the grouping in the form of a customs union or an economically viable free trade area. This shallow effort of mostly rhetorical opposition to Russia's regional integration drive has not brought about dividends that were hoped for, as none of the participants got any promise of the eventual affiliation

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[13] European Parliament, 'The European Parliament's support for the 'Orange Revolution' in Ukraine is a step towards an ambitious Wider Europe - Neighbourhood policy,' 7 September 2005, REF.: 20050819FCS00984, retrieved from http://www.europarl.eu.int/news/public/focus_page/ 7 September 2005.

[14] Inaugural address of the President of Ukraine Viktor Yushchenko to the Ukrainian people on Independence Square, 23 January 2005, Retrieved from http://ww2.yuschenko.com.ua/eng/Press_centre/168/2167/, 20 December 2006.

[15] Jose Manuel Barroso, Transcript of Press Conference, Visit of Condoleezza Rice, Brussels, 9 February 2005, Ref.: SPEECH/05/84, retrieved from http://europa.eu.int/

[16] *Christian Science Monitor*, 26 January 2005.

[17] Die Welt, 20 February 2006.

[18] Dan Bilefsky, 'EU 'Not Ready' to Invite Ukraine to Join the Bloc,' *International Herald Tribune*, 27 October 2006, Retrieved from http://www.iht.com/articles/2006/10/27/news/ukraine.php, 18 December 2006.

with the EU.[19] Therefore, Ukraine's participation in the SES has recently been the major focus of attention.

2. EXPLAINING REGIONALISM

Theories of regionalism, particularly new regionalism, help illuminate Ukraine's regional strategy. The following section will include a brief discussion of older theories of regionalism and their shortcomings in the modern, post-Cold War era. It will move into a discussion of new regionalism and its application to the Ukrainian regional strategy.

The "first wave" of the scholarly study of regionalism (not to be confused with the "first wave of regionalism," which took place in the nineteenth century) went beyond realist explanations and theorized on the wider implications for regional cooperation at the level of international relations. "Old regionalism" can therefore be defined as the theoretical analysis of shallow regional trade agreements.[20] The historical transition from regionalism to new regionalism has been a transition from shallow to deep integration, as well as the increase in partnerships between developed and developing countries.[21] Regional Trade Agreements (RTAs) have created linkages between developing countries and developed country partners.[22] Developing countries form RTAs with developed countries in order to compete with nonmembers for the developed partner's foreign direct investment.[23]

One can also distinguish differing degrees of "integration" among countries "along a continuum from 'shallow' to 'deep.'" Shallow integration involves reducing/eliminating barriers to trade in commodities, while deep integration concerns many more elements, such as the harmonizing of national policies, and encouraging internal factor mobility.[24] Since the cold war, regions have undergone major transformation due to the "fragmentation of great power blocs" and the pressure to adapt to economic globalization. As such, examining a region simply on the basis of geographical proximity or historical tradition is no longer adequate. Another key difference in the study of old regionalism and new regionalism is the growing differentiation between physical regions and functional regions.[25] Physical regions are defined as "territorial, military, and economic spaces controlled primarily by states," while functional regions "are defined by non-territorial factors such as culture and the market that are often the purview of non-state actors."[26]

Theories of regionalism have been determined by historical developments, or what many scholars refer to as the "four waves of regionalism." The first wave occurred in the latter half of the nineteenth century and was mostly confined to Europe, which "had begun to function

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[19] Mikhail Molchanov, 'New Regionalism in Europe's Eastern Neighborhood: The Promise of a Single Economic Space,' Paper prepared for the 6th Biennial conference of ECSA (European Community Studies Association – Canada), Victoria, BC, Canada, May 19-20 2006, 4-6.

[20] Mary E. Burfisher, Sherman Robinson, and Karen Thierfelder, 'Regionalism: Old and New, Theory and Practice,' Paper presented at International Conference: Agricultural Policy Reform and the WTO: Where are We Heading?, June 23-26, 2003, 3.

[21] Burfisher *et al.*, 'Regionalism: Old and New,' 20.

[22] Burfisher *et al.*, 'Regionalism: Old and New,' 6.

[23] Burfisher *et al.*, 'Regionalism: Old and New,' 16.

[24] Burfisher *et al.*, 'Regionalism: Old and New,' 5.

[25] Raimo Väyrynen, 'Regionalism: Old and New,' *International Studies Review* 5 (2003), 26.

[26] Väyrynen, 'Regionalism,' 27.

as a single market in many respects."[27] The second wave, which took place between the World Wars, was based highly on preferential trade, and most arrangements were formed between sovereign nation states.[28] The third wave comprised the late 1950s to the 1970s, and was characterized by "a plethora of regional trading blocs formed by developing countries" and the European Economic Community (EEC), the European Free Trade Association (EFTA), and the Council for Mutual Economic Assistance (CMEA).[29] The final wave of regionalism occurred at the end of the Cold War, and was marked by the United States' active participation in and promotion of the process, within an underlying multilateral (GATT/WTO) framework.[30] This wave is of primary importance for the study of new regionalism. Väyrynen argues that American economic and military dominance has not created effective regional security control, since much post-Soviet space continues to be dominated by Russia. [31] After 9/11 in particular, Russia has been able to bring about realignment with the United States "that has reduced the autonomy of the Eurasian political space."[32]

Beeson argues that historical perspectives illustrate the influence of extra-regional political forces in shaping regionalism. Regionalism is "an essentially political process transformed by multidimensional economic and strategic factors."[33] For example, the driving initiative for EU integration came primarily from outside of Western Europe as a consequence of both the Cold War and American foreign policy. While functionalism can explain how regional processes work and how they generate spillover, the theory does not adequately describe "the creation of regional orders in the first place."[34] The initial paths that lead to regional integration depend heavily on specific historical circumstances.

The end of Cold War divisions and the United States' consequent support for regional organization, as noted above, can explain the recent upsurge of regional integration. New regionalism is both more complex and more normative. Also unlike old regionalism, new regionalism is primarily offensive rather than defensive. Older studies of regionalism viewed the concept as "a defensive mechanism to reduce dependence on the international economy," whereas new regionalism seeks to secure greater access to global markets rather than "securing regional autarky."[35]

There is also a growing importance for the study of constructivism in new regionalism. Because new regionalism involves far deeper integration, the concepts of shared values, identities, and trust are more important. Constructivists stress the importance of "identity regions," which "exist in the consciousness of people" and must include historical and contemporary symbols shared by the regions' inhabitants.[36] Location has become less important, with some arguing that "countries sharing a communal identity comprise a region,

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[27] Edward D. Mansfield and Helen V. Milner, 'The New Wave of Regionalism,' *International Organization* 53.3 (1999), 596.

[28] Mansfield and Milner, 'New Wave of Regionalism,' 597.

[29] Mansfield and Milner, 'New Wave of Regionalism,' 600.

[30] Mansfield and Milner, 'New Wave of Regionalism,' 601.

[31] Väyrynen, 'Regionalism,' 28. Also see Philip G. Roeder, 'From Hierarchy to Hegemon: The Post-Soviet Security Complex,' in *Regional Orders: Building Security in a New World*, Eds. David A. Lake and Patrick M. Morgan (State College: Pennsylvania State University Press, 1997).

[32] Väyrynen, 'Regionalism,' 28-29.

[33] Mark Beeson, 'Rethinking Regionalism: Europe and East Asia in Comparative Historical Perspective,' *Journal of European Public Policy* 12.6 (2005), 970.

[34] Beeson, 'Rethinking Regionalism,' 971.

[35] Breslin and Higgott, 'Studying Regions,' 339.

[36] Väyrynen, 'Regionalism,' 37.

regardless of their location."[37]

With respect to the Ukrainian regional strategies, the latter statement can be illustrated by the recent survey conducted by the All-Russian Center for Studying Social Preferences (Russia), Social Laboratory "NOVAK" (Belorus), Research & Branding Group (Ukraine) and Institute of Comparative Social Studies (Kazakhstan). According to their mutual study, Western vector is supported by 57% in Kazakstan, 51% in Russia, 40% in Belorus and surprisingly the lowest 38% in Ukraine. On the other hand, cooperation within Post-Soviet space is supported by 48% of Ukrainians, 47% by Belorussians, 37% by Russians and 33% by Kazakhs. In terms of the SES, the following picture arises. Among those who want integration of Russia, Belarus, Kazakhstan and Ukraine we find 36% of Ukrainians, 30% of Belorussians, 24% of Kazakhs and just 20% of Russians. European Union is desirable for 18% of Ukrainians and Belorussians, 13% of Russians and just 9% of Kazakhs (Monitoring, 2006). This study concludes that Ukrainians are the most open for integration within post-Soviet space than other nations while Russians are the least open to these processes. Another interesting conclusion is: young generation in all four countries is more European oriented than the old. The results of the above survey are surprising because before the survey common knowledge usually characterized Ukraine as the most pro-Western country which is not the case according to the survey.

Although helpful, constructivist theory alone cannot explain new regionalism. Trust and collective identity alone do not bring about these new regions. Precipitating external threats, such as post-Soviet states' similarities in terms of economic transition, are pre-requisites for such communities.[38] Nonetheless, constructivism does add salient details to the Ukrainian leadership's perception of the two vectors as alternates, particularly whether the Ukrainian identity is inherently more Russian or European. In other words, social preferences of Ukrainian people should be taken into account while designing optimal strategy of regional development.

While there is no clear consensus on whether the formation of Regional Trade Agreements (RTAs) supports or impedes global trade liberalization, empirical evidence illustrates that RTAs have been "net trade-creating for both members and non-members" of these agreements.[39] What is important is whether a trade bloc is seen as a "building block" or a "stumbling block." Building blocks promote multilateral arrangements, while stumbling blocks entrench protectionism. This is a particularly important issue for Ukraine, which, as we shall see below, has tended to view cooperation in the Single Economic Space (SES) as detrimental to its ambitions to join the WTO and the European Union. However, because SES conditions state that trade agreements will fall in line with WTO guidelines, it should be seen as a building bloc, rather than a stumbling bloc.

In conclusion, the Ukrainian view of the SES as potentially destructive to its WTO ambitions is largely unsubstantiated. Moreover, if social preferences of Ukrainian people are taken into account, then the following conclusion, which was supported by some quantitative analysis earlier (see Molchanov and Yevdokimov, 2005), arises: Two vectors, Russian and European are complementary rather than mutually exclusive, and in terms of social welfare, in the short-

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[37] Mansfield and Milner, 'New Wave of Regionalism,' 591; also see Charles A Kupchan, 'Regionalizing Europe's Security: The Case for a New Mitteleuropa,' in *The Political Economy of Regionalism*, ed. Edward D. Mansfield and Helen V. Milner, 209-238 (New York: Columbia University Press, 1997).
[38] Väyrynen, 'Regionalism,' 38.
[39] Burfisher *et al*., 'Regionalism: Old and New,' 11.

run, Ukraine is better off within the SES while in the long-run, it is better off within the EU.

3. THE ORANGE REVOLUTION AND ITS UNRAVELING

The 2004 Orange revolution seemingly tilted the balance in favor of the European integration strategy. After the revolution, the new Ukrainian leadership affirmed the EU membership as its first priority. However, Ukraine's membership application to the EU has been discouraged by the EU Commission and soon undermined by political-economic developments at home. The oligarchic way of managing the economy has reasserted itself amidst widespread accusations of corruption in the top echelons of the Orange elite.

Precious little has been done to address the lack of economic freedom that characterized the country before the Orange revolution. The first real market test that Ukraine's new leadership did not pass was gasoline price regulations introduced by the former Prime-Minister Yulia Tymoshenko. Her market-distorting policies scared off Russian and other foreign investors in energy and almost all other sectors of the Ukrainian economy. This could never happen if Ukraine was part of the WTO or any other international economic institution. In the case of Ukraine and other post-Soviet economies, the smooth, natural transition from barter to money transactions should have been pre-planned to make it as painless as possible.

The ownership issues remained in many cases unresolved, and the process of privatization is still slow. Ukraine has not even come close to currency convertibility in 2005. Because of bad monetary policy, Ukraine shifted further away from that goal. This has led to an underdeveloped financial system in Ukraine, allowing unequal access by Ukrainian investors to loans in order to finance their projects. It is especially difficult to obtain loans for small and medium businesses, especially if a project is a long-term investment. As well, the existing trading in stock exchange and currency exchange in Ukraine is not transparent. Non-transparency led to a situation when different economic agents have different levels of access to financial data:

> The absence of system approach creates the pronounced risks for the national security in strategic industries and may inflict damages to the interests of general consumers in natural monopolies. The absence of official strategy of privatization creates risks of lobbying or political biases influencing the application of legal framework and formation of the privatization portfolio.[40]

Since 2004, Ukraine has not moved any closer to the EU, but managed to isolate itself from Russia and the SES. The "orange" coalition treated the two "vectors" as alternatives and made decisions that were arguably detrimental to Ukraine's national interests. The strategy of playing Russia against the West has risen suspicious on both sides and triggered a reversal of Ukraine's economic fortunes.

Economic growth decreased from an impressive 12.1 percent in 2004 to 2.6 percent, while inflation reached 10.3 percent by the end of 2005 and showed no signs of abating. Awkward monetary policy by the National Bank of Ukraine led to a trade deficit of $1.3 billion

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[40] Case Ukraine: Center for Social and Economic Research, http://www.case-ukraine.kiev.ua.

compared to a surplus of $4.5 billion in 2004.41 Gross investment fell from $15 billion in 2004 to $10.3 billion while foreign direct investment fell from $1.5 billion to $1.1 billion. Industrial production decreased by 4 percent and production in construction sector decreased by 6 percent. In addition, disposable income in 2005 increased by $153 per capita compared to a $211 increase in 2004. Given this macroeconomic performance, it is obvious that a lot of economic opportunities were lost over the span of a one year.

The two-day termination of gas supplies from Russia in January 2006 was but a tip of the iceberg of Ukraine's mounting political and economic problems. Kiev's failure to jumpstart reforms, suppress corruption, and make visible commitments to transparent business practices had alienated commercial partners in Europe, Russia, and the United States. Against such a background, the very choice of regional affiliation became a largely rhetorical exercise.

4. THE SINGLE ECONOMIC SPACE: ON-AGAIN, OFF-AGAIN?

The European Union's open rebuff of potential Ukrainian membership has led many to believe that the proposed Single Economic Space (SES) looks to be a more promising alternative. The Single Economic Space is a proposed regional project comprised of Russia, Ukraine, Kazakhstan and Belarus. The purpose was to create a single integrated economic block that provides for the integral free movement of all factors of production and for effective policy coordination with respect to macroeconomic issues.[42] In addition to the envisioned implementation of a free trade area and/or customs union, the four signatories of the SES agreement provided for developing of uniform trade regulations and tax policies, and introduction of common technical standards, including public health and environmental norms. They have floated such ideas as the creation of a common financial system and institutionalization of supranational regulation organs, and it had been announced that the four countries will seek harmonization of their macroeconomic policies and national legislation in the areas of international trade, competition and regulation of natural monopolies. Most importantly, participants to the SES proclaimed their intention to use WTO standards as agreed-upon benchmarks in coordination of these policies, and to seek WTO membership together.

In particular, Russia's role is central to the success or failure of this regional project. In its quest for dominance of the world oil and gas market, Russia seeks to develop and expand its existing partnerships with major energy producing and importing countries, including those in its immediate vicinity. However, Russia is not the only motor behind the SES project. Kazakhstan has also been overwhelmingly supportive of the venture. By the end of 2005, Kazakh President Nazarbayev emerged as the strongest supporter of the SES. His repeated advocacy of "Eurasian economic cooperation" has been influential in advancing the regional agenda among former Soviet states, and he insisted that the "ratio between liberalization and security" must be regionally determined.

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[41] International Monetary Fund, 'Ukraine – 2005 Article IV Consultation: Preliminary Conclusions of the Mission,' 2 August 2005, Retrieved from http://www.imf.org/external/np/ms/2005/080205.htm, 18 December 2006.

[42] 'Single Economic Space: Viability, Implications, and Prospects,' London School of Economics, Retrieved from http://www.eurasianhome.org/doc_files/lse_ses.pdf 25 November 2006.

When the Agreement on the Establishment of the SES was signed on September 19, 2003, the position of Ukraine was qualified by the reservation: "Ukraine takes part in establishment and functioning of the Single Economic Space in the limits which comply with the Constitution of Ukraine."[43] Although the agreement was ratified by all four countries in the spring of 2004, domestic developments in Ukraine after the Orange Revolution have led to questions regarding Ukrainian commitment to the project. Ukraine's position on regional integration through the Single Economic Space remains significantly more ambivalent than that of its proposed partners. The new Ukrainian leadership systematically delayed all negotiations within the framework of the SES and attempted to torpedo already concluded agreements by demanding special exclusions for Ukraine. Following the March 2006 elections, the composition of the Ukrainian Parliament and Ukraine's approach to regional strategies have changed once again. Immediately following the elections, the Ukrainian Ministry of Foreign Affairs made an official statement on Ukraine's participation in the negotiation process of forming the SES. This statement was based along the same lines in which Ukraine agreed to the agreement in 2003, expressing reservations regarding the viability of the project with Ukraine's constitutional commitments. Moreover, it was stated that further integration of the Ukraine in the SES contradicted the creation of the free trade area with the EU as one of the key stages in the implementation of the strategic course of Ukraine on accession to the European Union.[44]

The summer of 2006 brought new developments in the form of a new anti-crisis coalition in the Ukrainian Parliament, which altered the official attitude toward the SES once more. The August 3, 2006 Declaration on National Unity, signed by leaders of four political forces - the Party of Regions, Our Ukraine, the Socialists, and (with reservations) the Communists - called for a political truce but did not point to a way out of crisis. It was stated that Ukraine shall "urgently start talks" on creating a free-trade zone of Ukraine and the European Union, with a view to Ukraine's ultimate integration in the EU. At the same time, the declaration stated that Ukraine shall "complete work on participation" in the Russia-Belarus-Kazakhstan Single Economic Space (SES), starting with a free-trade zone consisting of Ukraine and SES, albeit "taking WTO norms into account."[45] The Cabinet of Ministers' program of actions envisioned strengthening of the SES "as a cardinally important direction in realizing national interests and ensuring Ukraine's national security." Finally, Vladimir Putin's December 2006 visit to Kiev saw numerous bilateral agreements signed, including the one giving Ukraine a discount on gas imports from Russia.

These developments suggested that Ukraine may be back on board regarding the Single Economic Space. Further, the President of Ukraine has said that

> …the line has been drawn under the organizational stage in the formation of
> the Single Economic Space. It is now time to move from grand plans to their
> real implementation and to achieving concrete, tangible results… our goal is

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[43] Ministry of Foreign Affairs of Ukraine, 'On Participation of Ukraine in Negotiation Process of Forming the Single Economic Space,' 28 April 2006, Retrieved from
http://www.mfa.gov.ua/mfa/en/publication/content/5755.htm, 16 December 2006.
[44] Ministry of Foreign Affairs, 'On Participation of Ukraine,' 28 April 2006.
[45] Jan Maksymiuk, 'Ukraine: President Compromises for National Unity,' *Radio Free Europe*, 3 August 2006, Retrieved from http://www.rferl.org/featuresarticle/2006/8/413086C1-70F6-49B7-AADF-D50598E63024.html, 16 December 2006.

the complete the formation of a full-scale free-trade zone without restrictions and limitation.[46]

However, the Ministry of Foreign Affairs, headed by Borys Tarasyuk, obstructed Ukraine's participation in the SES. The Ministry argued that, constitutionally, Ukraine could not take part in the Customs Union or higher forms of economic integration, and insisted that Ukraine's participation in the SES would block establishment of a free trade area with the European Union. Although the parliament voted to fire Tarasyuk, he was reinstated as a Minister by a court decision and subsequent presidential decree.

There are various reasons why the Ukrainian leadership continues to be less than enthusiastic about the potential of the Single Economic Space. Ukraine fears that Russia might use regionalization tendencies in the post-Soviet space to reassert its influence in the area. Some in Ukraine have adopted a Manichean view of the two "vectors," believing that economic cooperation with Russia through the SES cannot be accomplished at the same time as further cooperation with the European Union, in hopes of future accession. There are skeptical attitudes that even though they are striving to integrate Russia, Belarus, Ukraine and Kazakhstan, this integration may further separate them from the global economy.[47] Another argument offered by critics is that membership in the SES could hurt a country's chances of joining the World Trade Organization. For the last several years these four countries have attempted to accede to the World Trade Organization. After Russia secured American backing for its membership bid,[48] many Ukrainian analysts are now concerned that Ukraine may fall behind in its efforts to join the WTO, and that the formation of the Single Economic Space will only do further harm. It is ironic that, somewhat earlier, Kiev had fiercely rejected the idea of a synchronized (with Russia) accession to WTO.

Regional economic groups and free-trade zones – no matter how necessary or successful – are no substitute for global, multilateral trade agreements. However, theories of new regionalism generally agree that Regional Trade Agreements, such as the Single Economic Space, can complement rather than hinder multilateral global trade. It is also worth noting that the European Union has openly backed Ukraine's bid to join the World Trade Organization, in spite of denying its attempts at Union membership.[49] There is little reason to suggest that participation in the SES would harm the bids of the four countries to join the WTO.

Given Ukraine's current circumstances, the evidence is clear that the leadership should have stepped up its participation in the Single Economic Space (SES). A prudent strategy would be to find Ukraine's unique niche in that project. Joint projects with Russia and other SES members in energy, transportation, and other key sectors of the Ukrainian economy that are subject to common infrastructure within the limits of the SES would only serve to promote Ukraine's national interests and enhance its market viability. In fact, the SES must be perceived as a stepping stone in the ongoing process of global market integration. In the short run, regionalism based on the restoration of the lapsed economic ties among ex-Soviet states may well be preferred to the European integration run and overseen from Brussels. It may

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[46] Mark Baker, 'East: Will the Single Economic Space Merely Isolate Its Members From The World Economy?' *RadioFree Europe*, 26 May 2004, Retrieved from http://www.rferl.org/featuresarticle/2004/05/f7d8c602-a6b1-49d3-974d-0916697e6e0d.html, 16 December 2006.

[47] Tatiana Romanova and Natalia Zaslavskaya, 'EU-Russia: Towards the Four Spaces,' *Baltic Defense Review* 12.2 (2004): 83.

[48] Richard Galpin, 'US to Back Russia's WTO Entry Bid,' *BBC News*, 15 November 2006, Retrieved from http://news.bbc.co.uk/2/hi/business/6151912.stm, 16 December 2006.

[49] Bilefsky, 'EU Not Ready.'

help modernize the industrial potential that post-Soviet countries inherited from the former Soviet Union, while providing temporary shelter against harsh economic competition with more advanced countries abroad, thus paving the way for a more competent entry into the European and global markets at a later date. As illustrated above, Ukraine is not an open market by any means. Participation in the SES, using WTO standards, is the best way to open its economy and facilitate membership in the global economy.

5. BEYOND A MANICHEAN VIEW

Post-Soviet states' regional politics could not but be influenced by the West. Association with the EU promises stability, prosperity, and prestige that are due to the elite club of developed nations. Association with Russia promises cheap energy and reinvigoration of manufacturing capacity based on the cross-border production chains. The two goals – EU membership and close cooperation with Russia – are complementary, and Ukrainian leadership need not perpetuate dualistic thinking. Unfortunately, the Manichean "either-or" dichotomy that the West encouraged in the immediate aftermath of the Cold War continues in the Ukraine.

Having proclaimed associated membership in the EU as "the main foreign policy priority of Ukraine in the middle-term perspective,"[50] Ukraine's political establishment has approached the institutionalization of the SES agreement with caution, as something potentially detrimental to Ukraine's European goals. In addition, parliamentarians in Kiev were quick to point out that all activities within the realm of the institutionalized single economic space should be guided by Ukraine's overarching goal of speedy accession to the WTO. Continued rejection of membership in the European Union perpetuates the feeling of exclusion. Furthermore, Ukrainians in favor of joining the EU fell from 51 percent in 2004 to 41 percent in 2005. A spokesman for Interpipe, a large Ukrainian steel manufacturer, has stated that "EU trade protectionism towards Ukraine only damages the perception that the Ukrainians have of the EU, and their willingness to forge further bonds."[51] This could also add momentum to the SES projects. Eurasian regionalization is in many respects a logical and viable course of adjustment that can benefit a post-Soviet country finding its way in the global market economy. Regionalism is not intrinsically opposed to the spread of global markets.

Ukraine's role in the SES is pivotal. If it supports its progressive institutionalization and fully participates in all SES activities, the regional grouping stands good chances to flourish. If Ukraine torpedoes regionalization efforts in Russia's erstwhile neighborhood, Russia will be doomed to stand alone and face the full strength of international competition on its own. It is not difficult to foresee that Russia stands to lose economically. However, Ukraine will fare even worse, and both Belarusian and Kazakh prospects for development will be dampened, too. Hence, Ukraine's foreign policy and international identity choices are crucial for the success of the whole SES project.

Kiev could very well demonstrate how both countries could benefit from Ukraine getting an associate membership with the EU. The replacement of barter schemes by transparent money transactions between Russia and Ukraine as a potential member of the EU would be very attractive to Russia in economic terms. Politically, Ukraine could play the role of a bridge

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[50] 'Strategy of Ukraine's Integration to the European Union,' in *Roadway Into the Future – Roadway to Europe; Ukraine's European Integration* (Kyiv: Center for European and International Studies), 75-76.
[51] Bilefsky, 'EU Not Ready.'

between Russia and the expanded Europe. Instead, the prospect of Ukraine's potential EU (and NATO) membership was used by Kiev as a stick to "discipline" Russia, in a manner reminiscent of Georgia's overtures with the US played out by Mikheil Saakashvili's government. While there are similarities between Ukraine and Georgia's pro-Western policies, the economic situation in both countries is deteriorating. This leads to the conclusion that their national interests have been sacrificed to stave off alleged or assumed Russian resurgence in the region.

6. CONCLUSION

Ukraine's foreign policy remains subject to some controversy. Analysts are beginning to criticize the country's strategic orientation for its lack of consistency. On the one hand, a "return to Europe" has been proclaimed as the country's key priority as early as 1991. On the other hand, Ukraine had never developed a pro-European drive even remotely matching those demonstrated by the East Central Europeans or the Baltic states. Instead, it maintained its largely non-transparent business ties to Russia and the rest of the Commonwealth of Independent States, and persisted in propping up an obsolete and corrupt system of public administration. It has also tolerated rent-seeking behavior in the highest echelons of power and tried to block economic and legal reforms for as long as possible.

Ukraine could benefit more from developing its relations with Russia and the EU simultaneously. Joint projects with the SES partners would serve to promote Ukraine's national interests and market viability. Instead, Kiev delayed negotiations within the framework of the SES and attempted to torpedo already concluded agreements by demanding special exceptions. This has slowed down the process of the SES institutionalization. Although Ukraine still participates in the SES negotiations and is a member of the CIS, it hardly regards Russia as a preferred partner. On the other hand, there is no clear understanding of the current role of Ukraine in the EU. In the absence of a coherent regional policy, Ukraine can not make full use of developmental resources and synergies provided by regionalism.

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STRATEGY DEVELOPMENT IN "OLD" BOSNIAN COMPANIES: USING CASE STUDIES TO SUPPLEMENT SURVEY DATA

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1. INTRODUCTION

The process of transition in Bosnia and Herzegovina directly influences the macro-economic and indirectly the business environment and causes changes that require the strategic adaptation of companies, based on resource and competitive capabilities, which have to be transformed into competitive advantages with the help of suitable strategies (Domazet, 2000). Companies are, however, encountering numerous difficulties. Most of the literature on corporate restructuring fails to consider the specific conditions of countries such as Bosnia and Herzegovina. At the same time, companies consider the process too narrowly and in most cases do not prepare a comprehensive plan, but focus only on the implementation of a few measures. A special problem is still the open question of the ownership of companies, and because of that, companies are hesitating to make vital decisions (Mujagić *et al.*, 2004).

In Bosnian academic and business circles a wide range of macroeconomic issues, in particular the privatization of state (socially) owned companies, has been debated. In contrast there has been limited discussion of the process of their restructuring (at the micro level), considered essential for the development of competitiveness and economic growth needed for welfare creation in the country (EBRD, 1997).

An empirical research project from which this paper is derived is focused on the issues of strategic restructuring of the "old" Bosnian companies since the beginning of market transition in the country in 1995. Closer examination of the ways that the "old" companies have used, when dealing with demanding strategic issues and the assessment of their achievements, are based on data, gathered in a mailed questionnaire survey of a relatively large sample of "old" Bosnian companies, and in a multiple-case study of a sub-sample of the companies surveyed.

One purpose of the paper was to present causes of financial and competitive decline of "old" Bosnian companies and changes in their strategic behavior in attempting recovery. Severity of

the crisis situation, the most important strategic goals and the main types of strategies that have been implemented in the companies are identified. The research findings are then compared with the conceptual model of the corporate recovery process in transitional conditions (the model will be discussed in detail in subsection 3.2.2.).

The aims of the paper were to use the comparison made to identify differences between recommended theoretical and concrete practical models, and to evaluate the suitability of the implemented comprehensive strategy in the companies (in terms of theoretical perspectives) on the one end and, on the other, to explain some differences between the companies themselves (i.e. differences in formulation and implementation of comprehensive recovery strategies between the companies that reversed financial decline from those that continued to decline into severe distress). This was achieved by comparing and contrasting the data collected respectively by questionnaire survey and multiple-case study. In this connection, the paper also discusses and evaluates the contribution of the multiple-case study to the overall research design. In the conclusion an assessment is made of how successful the restructuring process has been at the company level up to now.

2. MULTI-METHOD RESEARCH APPROACH

2.1. Mailed questionnaire survey

In this study, the prime concern of the survey was to address the general characteristics of a specific population of subjects ("old" Bosnian companies), at varying points of time (from 1995 to 2003) for comparative purposes. The main concern of the authors was to identify the "research population" that will provide the information necessary for tackling the research problem. From the complete lists of companies that have been candidates for the privatization process at the beginning of transition, both in the Federation of Bosnia and Herzegovina (FBiH) and in the Republic of Serbs (RS)[1], all irrelevant cases have been excluded, i.e. all non-business organizations, governmental agencies and companies that are under state protection and governance (approximately 15 percent of all organizations), because they are not suitable for research into the corporate recovery process, as they are not independent with regard to the formulation and implementation of business and corporate level strategies. After excluding all irrelevant cases, the sampling frame consisted of 2079 "old" companies (1151 from FBiH and 928 from RS) from which a random sample was drawn. A total of 441 survey questionnaires were distributed (in November and December 2003) across the whole territory of Bosnia and Herzegovina.

In spite of numerous difficulties encountered, by the end of February 2004, 107 completed questionnaires were collected, a response rate of 24.3 percent. The respondents were mostly General Directors (61.4 percent), Financial (13.9 percent) and Marketing Managers (13.9 percent). Of the remaining 10.9 percent, the respondents were managers of different fields, such as accounting, production, etc. The "old" companies that co-operated in the research were founded in 1989 or earlier, and were on average 45 years old. More than two thirds (i.e. 70.1 percent) of companies have their headquarters located within the territory of the FBiH and nearly 30 percent within the RS. Nearly 81 percent of companies belong to the production sector (manufacturing and other production), 11.2 percent to trading and 7.9 percent to the

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[1] Bosnia and Herzegovina consists of two entities, the Federation of Bosnia and Herzegovina (51 percent of the territory) and the Republic of Serbs (49 percent of the territory).

service sector. Out of 107 companies, 81.3 percent are joint stock companies and 18.7 percent are limited partnership companies. Their ownership structure is as follows: 63.8 percent private, 23.8 percent common (mixed), and 12.4 percent state ownership. Regarding the common property, the state is a major owner in 84 percent of these companies. Therefore, almost two thirds of the companies have been already privatized, nearly one quarter is undergoing this process, and more than 12 percent of companies are still waiting for new owners.

Some of the general directors and members of the management teams of Bosnian companies did not answer all the questions. However, the returned questionnaires provided most of the answers that were required. In view of the response rate and gathered information, the survey should be considered as a representative one. The results from the Kolmogorov-Smirnov test[2] speak in favor of this assertion.

Exploratory analyses were undertaken by using the analysis software "Statistical Package for the Social Sciences" (SPSS) for Windows. The research questions and objectives as well as the type (quantity and quality) of gathered data determined the choice of statistics. All issues that seemed to be problematic or not clear from the results of the quantitative analysis were examined in greater depth in the multiple-case study.

2.2. Multiple-case study

The multiple-case study research (second phase of the fieldwork) started in the first half of January 2004. The results from the preliminary analysis of the received questionnaires (67 by the end of December 2003) guided the authors in the subsequent investigation. The unit of analysis of each of the four case studies was one of the "old" Bosnian companies, i.e. its recovery process during the transition (from 1995 to 2003). These companies were selected from the sample of the companies surveyed.

To increase the quality of a multiple-case study, the authors used: replication logic (to increase external validity, i.e. generalizability); multiple sources of evidence (to increase construct validity); and the case study protocol and databases (to increase reliability). Internal validity was not a concern as the case studies were exploratory (Yin, 1994:33).

Replication logic may be achieved through the selection of two successful and two unsuccessful companies. If the two successful cases turn out to support the study propositions (and the proposed integrated model of the corporate recovery process), a literal replication will be achieved. Further, if two problematic cases produce contrasting results but for predictable reasons (e.g. companies are unsuccessful because of the selection of unsuitable generic strategies and/or the poor implementation of the selected generic strategies), a theoretical replication will be achieved (Yin, 1994: 46).

Data collection methods that were employed in the multiple-case study are: questionnaires, face-to-face semi-structured interviews, observations and documentary analysis. By the end of March 2004, the authors had collected data in the form of: 20 additional questionnaires, 20

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[2] The Kolmogorov-Smirnov test is based on a comparison of the cumulative proportions of the observed values in each category of a variable with the cumulative proportions in the same categories for the specified population (Saunders *et al.*, 2000: 360). It calculates a D statistic that is than used to calculate the probability that the two distributions are significantly different. A description of the procedure can be found in Tull and Hawkins (1993: 645-646).

interviews with managers (five from each company), informal conversations with employees and a wide range of internal documentation.

However, these data were not pooled across cases. Rather, they were analyzed separately and were part of the findings for each individual case. Only then were the conclusions from the individual cases compared. Findings from the cross-case analysis were subsequently related to those that were obtained from the questionnaire survey (in cross-method analysis). The main advantage of using such a multi-method strategy is that it enabled methodological and data triangulation to take place (Saunders *et al*, 2000: 99).

3. FINDINGS FROM THE QUESTIONNAIRE (QUANTITATIVE) DATA ANALYSIS

3.1. Why did "old" Bosnian companies undertake the corporate recovery process?

3.1.1. Causes of crisis

Companies found themselves in crisis for many different reasons. The analysis revealed that almost all the typical causes of crisis, quoted in the literature (Slatter, 1984; Bibeault, 1982; Krystek, 1987: 32-71; Slatter and Lovett, 1999: 21), were also recognizable in the "old" Bosnian companies, although acquisitions and excessive growth are not as relevant as some other causes, which can be related to the radical political and economic changes in the country. According to assigned importance, government policy, high cost structures and changes in market demand were the most significant causes of competitive and/or financial decline that were recognizable in the companies at the beginning of market transition (end of 1995). Furthermore, the unexpected changes in the environment, adverse commodity price movements (e.g., interests rates), price or product competition, lack of marketing effort and inadequate management, gained relatively high score values. The remaining causes that were recognizable in the companies at the end of 1995 (e.g., inadequate financial policy, organizational inertia and confusion, poor working capital management, lack of financial control, strikes, etc.) seem to be less significant to the top managers. Nearly 92 percent of the top managers claim that some of the above stated causes of competitive and/or financial decline were still recognizable in their companies in 2003. Government policy, high cost structures and changes in market demand remained in the first three positions as the most significant causes in the companies (see also Mujagić *et al.*, 2005b).

3.1.2. Levels of crisis severity and degrees of (current) business difficulties

The severity of the crisis situation is a measure of the company's financial health that gauges the magnitude of the threat to company survival (Hofer, 1980). A low level of severity in the company is indicated by declines in sales or income margins, while extremely high severity would be signaled by imminent bankruptcy of the company (Pearce and Robbins, 1993), or in our case with a "blockade of the company's (giro) account", because this is the severest measure, which can be implemented against the "old" companies, as Bosnian legislation still does not have an applicable bankruptcy law. Companies in great danger of failure (i.e., acute crisis situations) need to achieve stability through fast implementation of radical strategic measures (crisis management strategies), while companies in less severe situations can achieve stability merely through implementation of revitalization (stabilization) strategies.

The survey results show that nearly two thirds of the companies (i.e. 70.9 percent) in 1995 experienced some declines in sales or income margins (low severity), 10.1 percent of companies were illiquid or heavily indebted (medium severity), and almost one fifth of the companies (i.e. 19 percent) experienced extremely high severity, signaled by a blockade of the company's giro account. The situation in 2003 was even worse because of a decrease in the proportion of companies that experienced declines in sales or income margins (by 8.7 percentage points), and increase in the proportion of companies that were illiquid or heavily indebted (by 2.1 percentage points) and companies that encountered a blockade of the company's giro account (by 6.6 percentage points). These factors indicate a high level of severity, as a prevailing level of crisis severity, in the companies, both in 1995 and 2003.

This interpretation can be substantiated with the results from the analysis of the companies' current business difficulties and the achieved profitability (ROE) levels in 1990 and between 1996 and 2003. Namely, the relative number of companies that are still in a position in which their existence is seriously endangered (i.e. acute crisis) is relatively high (31.4 percent). Nearly 14 percent of the companies are on the way out of crisis (i.e. revival stage). In the state of latent (distant) crisis there are still 34.3 percent of the companies. Only 11.8 percent of the companies are in a good position, but strategic reorientation will be needed in the future because of the changes in the business environment, and 8.8 percent of the companies already perform well and do not feel a need for a radical strategy. Furthermore, Figure 1 presents the proportion of companies that operated with a loss, insufficient (from 0 percent to 4.9 percent), low (from 5 percent to 9.9 percent) or satisfactory/normal (above 10 percent) profitability in 1990 and between 1996 and 2003. Although some improvements in the distribution of the achieved profitability levels between 2001 and 2003 can be seen, i.e. decrease in the proportion of companies that operated with a loss (by 14.7 percentage points), increase in the proportion of companies that achieved profitability rates from 0 percent to 9.9 percent (by 11.6 percentage points), and increase in the proportion of companies that achieved profitability rates above 10 percent (by 3.1 percentage points), there are three other factors that seems to be especially problematic.
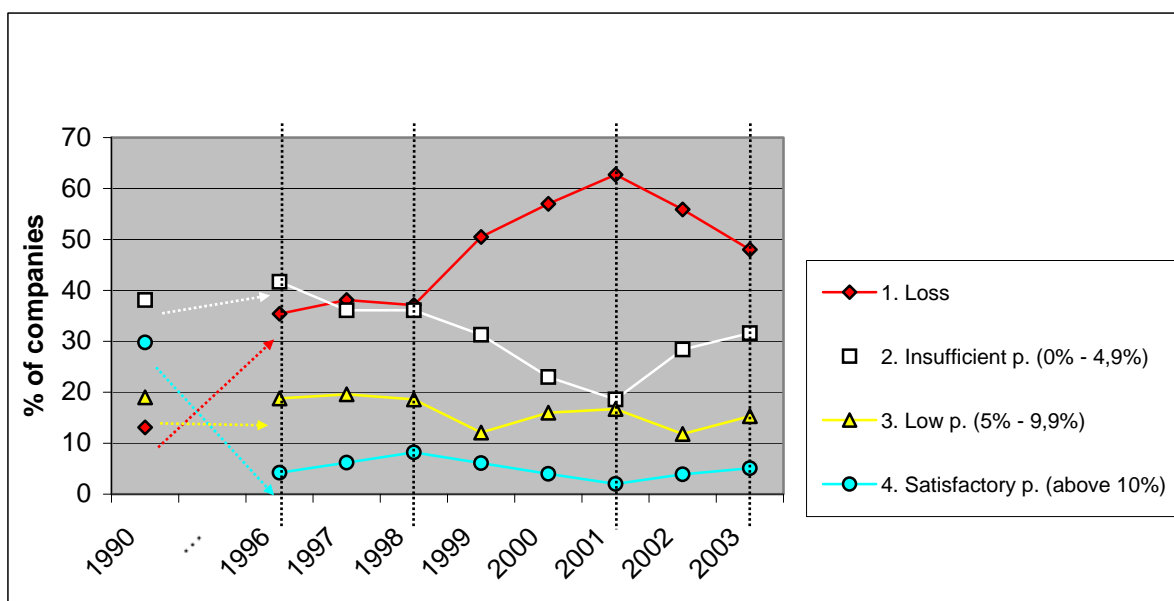
Figure 1: Changes in the proportion of companies that operated with a loss, insufficient, low or normal profitability (ROE) in 1990 and between 1996 and 2003.

The first one is that between 1997 and 2003 the major proportion of companies operated with a loss. The second one is connected with the steep declines in profitability levels between 1998 and 2001, followed by a steep increase in the proportion of companies that operated with a loss during the same period. The third change is connected with the differences between the profitability levels in 2003 and those that were achieved during the first few years of transition. Namely, after almost a decade of transition in 2003, the proportion of companies that operated with a loss (48 percent) was higher than each of the respective proportions in 1996 (35.4 percent), 1997 (38.1 percent) and 1998 (37.1 percent).

3.2. How did "old" Bosnian companies undertake the corporate recovery process?

3.2.1. The most important strategic goals that companies were/are trying to achieve

The strategic goals and objectives of a company relate to the most important business results which a firm sets for itself and which it tries to achieve in the long run. The company's strategic goals indicate what the result of its strategic restructuring should be (Pučko and Edwards, 1999: 79). Therefore, one might obtain a good insight into the strategic restructuring of the "old" Bosnian companies by finding out which strategic objectives they consider the most important and how they have been changing during the transition period.

The first five most important strategic goals, which the "old" Bosnian companies followed through the entire period under investigation were: cost reduction, to survive the present year, liquidity, output increase and increase in sales. They appear to be rather stable during the transition period. Also, breakthrough on new markets, modernization and reconstruction of machinery and IT equipment, productivity, product (service) quality and reliability of deliveries (except between 1995 and 1998) seem to be important to the top managers, as they were ranked rather highly, too. Other types of strategic goals, e.g. profit, management quality, employee skills development, market share, introduction of new technology, and creativity and innovations were assessed as being less important during the transition period.

The types of the most important strategic goals presented above and their continuity during the transition period lead to the conclusion that a great majority of the "old" Bosnian companies still have not entered a new, more advanced stage of the corporate recovery process. They obviously failed to achieve the basic goals of stability and liquidity, and to pass to the second (revitalization) stage of the restructuring process, where strategic goals like product (service) quality, productivity, profit, market share, creativity, innovation and flexibility become much more important than mere survival, liquidity, cost reduction, etc.

If management wants to achieve strategic goals, it has to develop an appropriate strategy[3]. According to the literature (theory), stability could be achieved through fast and consistent implementation of radical strategic measures (crisis management strategies). What generic strategies were actually implemented at the beginning of and during the corporate recovery process, and which are the most important strategies that companies are currently implementing, are questions that will be answered in the following subsections.

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[3] Strategy is being interpreted as any possible business orientation that, with its implementation, would assure achievement of strategic goals and objectives (Pučko: 1994: 9).

3.2.2. Conceptual model of the corporate recovery process in transitional conditions

Radical political and economic changes in Bosnia and Herzegovina have created a massive demand for turnaround management. The move towards a market economy and mass privatization had put substantial pressure on formerly state (socially) owned companies to reform or die. In many cases the scope and urgency of the restructuring required mean that the change programs are genuine turnarounds rather than business transformation projects, as the latter are generally restricted to business improvement and do not encompass crisis management, capital restructuring or dealing with stakeholders (Slatter and Lovett, 1999: 7-10). However, there is mounting evidence, which suggest that traditional turnaround efforts far more often result in failure than in success. Statistics on business failure rates support the conclusion that neither scholars nor practitioners have succeeded in designing a model to guide strategic management action during periods of financial decline and, for this reason, the identification of appropriate managerial responses to financial decline has become increasingly important (Pearce and Robbins, 1993: 613).

Consequently, a review was conducted of the crisis management and corporate restructuring literature from multiple disciplines and related research streams. The product of this work is an empirically driven, conceptual model of the corporate recovery process in transitional conditions, presented in Figure 2. It is based primarily on Pučko's (2001, 2005) and Pearce and Robbins's (1993) models of the corporate recovery process, but some other studies have also helped to provide major conceptual elements for its development. A special emphasis has been given to the six primary implications of their findings for model building, namely: a relationship between the cause and nature of the recovery response (Schendel et al., 1976; Schendel and Patton, 1976); a link between crisis severity and the extent and speed of the recovery response (Hofer, 1980); classifications of recovery strategies (Hambrick and Schecter, 1983; O'Neill, 1986); a multistage perspective of the recovery process and the importance of crisis management (Bibeault, 1982; Slatter, 1984; Scherrer, 1989; Grinyer, Mayes and McKiernan, 1988; Grinyer, Mayes and McKiernan, 1990; Robbins and Pierce, 1992; Pearce and Robbins, 1993); the vital role of strategic changes in facilitating a corporate recovery process (Barker and Mone, 1994; Barker and Duhaime, 1997); and path-dependence of a company's recovery response (Edwards and Lawrence, 1994, 1996; Brada and Singh, 1999; Pučko and Edwards, 1999; Pučko, 2001, 2005).

Building on data-supported hypotheses from prior research and confirmatory anecdotal evidence from practitioner literature, and considering some peculiarities of the Bosnian transitional environment, the model is intended to help focus subsequent theoretical development, and consequently, to accelerate the advancement of strategic management practice in Bosnia and Herzegovina and other lagging reformers in South-Eastern Europe and the Commonwealth of Independent States. The underlying premise of this model is that competitive action can reverse the consequences of the Bosnian hostile business environment or inefficient management practice. Its main propositions can be summarized as follows:

The corporate recovery response in transitional conditions should:

1. Include consideration of specific causes of financial downturn, and recognition that the recovery actions, to affect the financial situation of "old" Bosnian companies, might differ (to a certain degree) from the response suitable for companies operating in normal market conditions.

2. Couple the severity of the crisis situation with the extent/immediacy (and nature/content) of taking initial recovery actions (different levels of crisis severity should be measured by multiple financial and non financial indicators of a company's competitive/financial health).

3. Accommodate the possibility that the corporate recovery process in transitional conditions consists of (at least) four stages, where each stage has to be explored from three different perspectives (three salient dimensions of the recovery process): focus (strategic and operating activities implemented), degree (financial performance achieved) and duration of the stage.

4. Allows the possibility that each recovery stage consists of both operating and strategic components, where in each consecutive stage of the recovery process a different emphasis is given to the implementation of operating or strategic activities.

5. Accommodate the possibility that the recovery process in its first and second stage involves respectively a wide spectrum of crisis management (reaction) and defensive restructuring (revitalization) activities that range from retrenchment to revenue-generation, and which are initially (in the first stage) oriented toward halting financial decline and ensuring survival and afterwards (in the second stage) toward marginal improvement of a company's financial position (cash flow) and stabilization of business operations.

6. Accommodate the possibility that the recovery process in the third and fourth stages involves a wide range of strategic and operating activities, which are oriented toward deep restructuring (reorientation strategies) - in the third stage, and recovery and growth (growth strategies) - in the fourth stage, as well as toward the maintenance of a company's operating efficiency (through both stages).

Crisis situation		The corporate recovery process			
Causes	**Severity**	Process's stage/ Process's salient dimension	**1. Reaction** (Crisis management)	**2. Revitalization** (Defensive restructuring)	**3. Reorientation** (Deep restructuring)	**4. Growth** (Complete recovery)
		Mainly →	**Operating changes/activities** (efficiency improvement)			**Strategic changes** (effectiveness improvement)

			1. Reaction	2. Revitalization	3. Reorientation	4. Growth
Internal / External	High / Low	**1. Focus**	1. Changes within management team 2. Engagement of outside consultants 3. Introduction of project (crisis) teams 4. Strong central financial control 5. Productivity improvement 6. Cost reduction 7. Output reduction 8. Work force reduction (soft way) 9. Changes in organizational structure and decentralization 10. Finding new markets 11. Co-operation with foreign partners 12. Improved marketing 13. Gradual quality improvement 14. Suspending capital expenditures 15. Different financial strategies 16. Effective communication 17. Initiating cultural changes	1. Concentrating on core business/ activities 2. Further cost reduction 3. Further work force reduction 4. Recruitment of specialists 5. Productivity improvements 6. Product improvement 7. Marketing improvements 8. Subcontracting 9. Outsourcing 10. Employee skills development 11. Further changes in organizational structure 12. Preparation for and privatization 13. Divesting peripheral and insufficiently profitable areas 14. Asset divestment	1. Business level strategies - Cost leadership strategy - Differentiation strategy - Focus strategy 2. Corporate level strategies - Market penetration - Product development - Market development - Technology development 3. Total Quality management 4. External quality development 5. Co-operation 6. New strategic alliances 7. Internalization 8. Selection of customers and suppliers 9. Late ownership restructuring 10. Modernization of technology and IT equipment	1. Diversification strategies - Product-market diversification - Market-technology diversification - Product-technology diversification - Complete diversification 2. Further selection of customers and suppliers 3. Human Resource Management 4. Organizational culture development 5. Improvement of educational structure 6. Growth via acquisitions 7. Merger 8. Different financial strategies for financing of growth 9. Adaptation of organizational structure to growth strategies
		2. Degree	Loss	Insufficient profitability	Low profitability	Satisfactory (normal) profitability
		3. Duration	4 – 5 years	2 – 3 years	2 – 3 years	3 – 4 years

Leads to a new cycle (post-restructuring stage), which differs in structure, extent and intensity of implemented changes in particular stages

Remark: Symbol " ⟳ " represents: 1. an interaction between main internal and external causes of crisis situation;
2. a connectedness between successive stages of corporate recovery process, and
   a possibility of progression to the following, or regression to the previous stage of the corporate recovery process.

Figure 2: Conceptual model of the corporate recovery process in transitional conditions

Therefore, according to the model, the recovery process in transitional conditions consists of at least four stages. In the first (Reaction) stage, emphasis is given to a sound, effective and efficient crisis management, which in its actions has to consider all legal, governmental restrictions. A company passes to the second (Revitalization) stage when it marginally improves its performance, when its existence is not so obviously at risk and when the top management team receives the support of the critical mass of stakeholders. This (defensive restructuring) stage serves as a base for the third (Reorientation) stage, in which an already stabilized and privatized company has to finalize its (deep) restructuring. After financial, ownership and strategic restructuring are accomplished, a company moves to the final (Growth) stage of the corporate recovery process in which its existence is no longer in danger, it has recovered, as it has rebuilt its competitive advantage, it is already able to operate as a viable market unit, and it is ready to grow by implementing a chosen growth strategy (Pučko, 2001).

3.2.3. Generic strategies that were implemented during the corporate recovery process

The proposed conceptual model of the corporate recovery process in transitional conditions (see Figure 2) suggests that there are at least four different kinds (groups) of strategies available for strategic restructuring of companies, namely: reaction, revitalization, reorientation and growth strategies. The following sections (i.e., Sections 3.2.3.1. to 3.2.3.4.) present the most important generic strategies (from each of the four groups of strategies), which were implemented in the companies between 1995 and 2003. Identification of differences between the recommended theoretical and concrete practical models of the corporate recovery, and evaluation of the suitability of chosen (implemented) comprehensive strategy in the companies (in terms of theoretical perspectives) will be presented in Section 5.

3.2.3.1. Reaction strategies

Reaction (crisis management/turnaround/radical/recovery) strategies are suitable in circumstances where a company is already in a crisis situation and its losses have to be reduced and profitability has to be achieved again. Reaction strategies require not only a radical new strategy but also introduction of crisis management (Pučko, 1994: 10). The top managers were asked to rank for each consecutive year the first five or more most important generic strategies (from the list of 21 reaction strategies) that were implemented in the companies between 1995 and 2003. At the beginning of the corporate recovery process in 1995 and 1996, in order to achieve strategic goals, a majority of the top managers were trying to: cut costs, reduce their work force in a soft way (appropriate compensation for those, who are willing to leave), increase quality of product and services and improve marketing. Most of the companies encountered some management and legal form changes. They were trying to find some new markets for their products and/or services, to establish strong, centralized financial control and to make some productivity improvements. In 1997 and 1998, besides cost reduction strategy that according to assigned importance remained the most important strategy through the entire period, a majority of the companies made some attempts to improve the quality of their product and services, to reduce their work force and to improve marketing. However, finding new markets, changes within the management team and legal form changes, fell in importance, while productivity improvement, strong central financial control, raising additional finance (in the form of both new loans and new equity) and initiating cultural changes became more important. Between 1999 and 2002, most of the companies concentrated on cost reduction, marketing and productivity improvement, work

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force reduction (soft), gradual quality improvement (especially in 1999 and 2000), changes within the management team (especially in 2001 and 2002) and finding new markets. In 2003, a majority of the top managers assessed the following reaction strategies as being the most important: cost reduction, improved marketing, productivity improvement, finding new markets, changes within management team, work force reduction (soft), gradual quality improvement, debt restructuring (converting short-term debt into long-term debt, converting unpaid interest into loans, etc.), strong central financial control and co-operation with domestic/foreign partners. Some other types of strategies, e.g. engagement of outside consultants, initiating cultural changes, suspending capital expenditures, working capital reduction, introduction of project (crisis) teams, effective communication and output reduction seemed to be less important to the top managers through the entire period discussed.

3.2.3.2. Revitalization strategies

Revitalization (stabilization/defensive restructuring) strategies should be implemented when a company is misaligned with its present business environment and its performance is below average but there is still no immediate evidence of a crisis or threat to its survival (Pučko, 1994: 10). Regarding the implementation of the revitalization strategies, between 1995 and 2000 most of the top managers were trying to: concentrate on core business/activities, make some further cost reduction, improve productivity, reduce work force, improve marketing and develop employee skills. In 1999 and 2000, top management teams dedicated most of their time and energies to preparing the companies for privatization. In 2001 and 2002, the most frequently implemented revitalization strategies were: further cost reduction, concentrating on core business activities, productivity improvements, further work force reduction, product improvement and marketing improvement. During these two years, most of the top managers concentrated on activities linked to their companies' privatization, which took up considerable time and prevented them from making some important strategic decisions. According to the achieved profitability levels and the proportion of companies that operated with a loss and insufficient profitability (see Figure 1), this period can be described as a slight "standstill" in the corporate recovery process. In 2003, a majority of the top managers assessed the following revitalization strategies as being the most important: cost reduction, productivity improvements, concentrating on core business/activities, product improvement, further work force reduction, marketing improvements and recruitment of specialists. Some other types of strategies, e.g. employee skills development, further changes in organizational structure, subcontracting and outsourcing were not frequently implemented in the companies throughout the entire period discussed. Asset divestment, sale and leaseback of assets, and divestment of peripheral and insufficiently profitable areas are still strategies which most of the "old" companies were not able to implement.

3.2.3.3. Reorientation strategies

Reorientation (corporate and business level/growth/deep restructuring) strategies should be implemented in a company that anticipates stagnation or even decline because its present markets mature, in order to reorient itself to more attractive markets and strategic business areas (Pučko, 1994: 10). Looking at the characteristics of corporate strategies[4] that were implemented in the "old" Bosnian companies between 1995 and 2003, it can be seen that most

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[4] Corporate strategies could be built up around market penetration, product development, market development, diversification (Ansoff, 1969), and technology development (Littler and Sweeting, 1987). This is a well-known growth matrix concept, originally developed by Ansoff and subsequently amended by Littler and Sweeting, by adding the technology dimension to the existing product and market dimensions.

companies build their future on market penetration strategies (i.e. increasing the size of sales with the existing or improved products), without aiming at entering new markets, developing new products, or developing new technology. Product and market development strategies were also in use through the entire period discussed. On the other hand, technology development strategies were not in the forefront of Bosnian companies. The stated findings indicate that the "old" Bosnian companies have not been using a strategy of concentrating their businesses on core competences, as was the case with Western European companies in the period of strategic restructuring (Pučko, 1994: 12). Regarding generic business strategies[5], the findings show that between 1995 and 2003 most of the companies implemented cost leadership and focus types of strategies. On the other hand, the differentiation type of strategy was not much in evidence. The data do not indicate how strictly individual types of business strategies were realized through the entire period discussed, but taking into the account the assessments of the importance of different strategic goals that companies were/are trying to achieve, e.g. low cost and financing capability on the one end and, on the other, product quality, reliability of deliveries and (to a certain degree) management quality (see Subsection 3.2.1.), it can be assumed that there are many "stuck in the middle strategies" being implemented in the companies.

To some extent, the stated strategic goals support the findings on the generic business strategies. As the top managers did not mention strategic goals like product differentiation, company image, strong brand, etc., and taking into account the assessment of the importance of the differentiation strategy, one could conclude that the focus strategy based on product differentiation has not been used to any large degree either, whence it follows that the cost effectiveness strategy and the focus strategy, based on low cost, were implemented most. Some other strategies from the group of reorientation strategies, e.g. selection of customers and suppliers, Total Quality Management, internationalization, new strategic alliances, etc. seem to be less important to the top managers throughout the entire period discussed.

3.2.3.4. Growth strategies

Growth strategies are suitable in the advanced phase of the corporate recovery process, when a company does not have liquidity problems, its profitability is in line with the owner's demands, it has rebuilt its competitive advantage and is able to operate as a viable market unit. Most of the companies that implemented some type of diversification (corporate growth) strategies decided to enter new markets with new products, without aiming to use new technology (product-market diversification). Market-technology diversification was also very much in use, especially between 1999 and 2003. Product-technology diversification strategies were implemented more frequently only in 2003. On the other hand, complete diversification was not in the forefront of the "old" Bosnian companies through the entire period discussed. Several other strategies such as organizational culture development, selection of customers and suppliers, and improvement of educational structure were also frequently in use, although the last mentioned lost in importance in 2003. Human Resource Management and different financial strategies for financing growth were not much in use. Mergers and acquisitions were

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[5] Business level strategies should define the way in which the company's strategic business unit will achieve a competitive advantage (Porter, 1985: 11). Among many classifications of business strategies, the most frequently discussed in the strategic management literature is Porter's classification. The main idea of the concept is that a company can choose between three potential strategic approaches to outperform its competitors in an industry. These strategies are: cost leadership, differentiation, and focus strategy, based either on low costs or differentiation. As "stuck in the middle" are characterized those companies which fail to develop a strategy conforming to one of the three above mentioned directions (Porter, 1980).

also insignificant. The absence of these kinds of strategies did not contribute positively to a more rapid corporate restructuring in Bosnia and Herzegovina.

3.2.4. Changes in strategic behavior of the "old" companies between 1995 and 2003

Table 1 presents the proportion of the companies that implemented at least one (or more) generic strategy from the group of reaction, revitalization, reorientation and growth strategies between 1995 and 2003, and the average number of implemented strategies from each of the four groups (types) of strategies, during the same period. As the cumulative sums of the proportion of companies that implemented different types of strategies between 1995 and 2003 exceed 100 percent (for each of the five subintervals), it is evident that, in entire period discussed, most of the companies did not form and implement a "clean-", but some kind of "hybrid-" type of comprehensive strategies, which consisted of a combination of generic strategies that, according to the presented classification, belong to different groups of the corporate recovery strategies.

Table 1: Proportion of companies that implemented different types of strategies and average number of strategies implemented between 1995 and 2003 (n = 100)

Proportion of companies and average no. of implemented strategies/ Group of strategies	1995-1996		1997-1998		1999-2000		2001-2002		2003	
	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean
Reaction strategies	67.0	3.4	71.0	3.6	73.0	4.0	82.0	4.9	94.0	5.7
Revitalization strategies	68.0	3.3	72.0	3.6	79.0	3.9	83.0	4.7	93.0	5.2
Reorientation strategies	63.0	3.0	66.0	3.1	67.0	3.2	72.0	4.0	84.0	4.7
Growth strategies	49.0	1.9	54.0	2.1	54.0	2.2	60.0	2.6	71.0	3.0

During the first eight years of transition, most of the companies implemented generic strategies that belong to the group of revitalization strategies. Reaction strategies were in second position, followed by reorientation and growth strategies. For the first time in 2003, most of the companies implemented some of the reaction strategies (i.e. 94 percent). Revitalization strategies were in second position, followed by reorientation and growth strategies that remained respectively in third and fourth positions. The data also show a continuous increase in the proportion of companies that implemented at least one generic strategy from the group of reaction, revitalization, reorientation or growth strategies and an increase in the average number of implemented strategies from each of the four groups of strategies in each consecutive year between 1995 and 2003.

Furthermore, the survey results revealed some changes in the ranking of the generic strategies, within each of the four mentioned groups of strategies that were implemented in the companies between 1995 and 2003. Throughout the entire period discussed, strategies like work force reduction (soft), gradual quality improvement, strong central financial control, changes in organizational structure and decentralization, legal form change, raising additional finance, concentrating on core business/activities, employee skills development, product development, product improvement, focus, no-change strategy, organizational culture development, improvement of educational structure, Human Resource Management and different financial strategies for financing growth lost in importance, while improved marketing, productivity improvement, finding new markets, debt restructuring, co-operation with domestic/foreign partners, further cost reduction, productivity improvements, recruitment of specialists, market development, cost leadership strategy, modernization of technology and IT equipment, market-technology diversification and product-technology diversification became more important to the companies.

The above presented results from the questionnaire survey data analysis have helped in examination and identification of some general issues regarding the corporate recovery practice in Bosnian transitional conditions, i.e. changes in strategic behavior (of the sample) of "old" Bosnian companies while attempting to recover (between 1995 and 2003). However, because of the structure of the sample (i.e., approximately 80 percent of troubled and 20 percent of well performing companies), the quantitative data analysis has not proved to be the most appropriate method for exploration of differences between the "old" companies themselves. Namely, there are still some open questions that needed further clarification, especially those that investigate differences in formulation and implementation of comprehensive recovery strategies between the companies that reversed financial decline from those that continued to decline into severe distress. These issues will be discussed further and in greater depth in the qualitative (multiple-case study) data analysis in the following section (Section 4). Identification of differences between the recommended theoretical and concrete practical models of the corporate recovery, evaluation of the suitability of the implemented comprehensive strategy (initial recovery response) in the companies in terms of theoretical perspectives, and the assessment of the companies' achievements will be presented in Section 5.

4. FINDINGS FROM THE MULTIPLE-CASE STUDY (QUALITATIVE) DATA ANALYSIS: CROSS-CASE ANALYSIS

The four "old" Bosnian companies are named Steel, Wood, Paper and Furnace respectively. Their real names and location of headquarters are withheld in order to preserve their anonymity as requested by the companies, since none of them agreed to reveal their identity. Some basic information on the case study companies are summarized in Table 2.

Table 2: Basic information on the case study companies

Item / Company	Steel	Wood	Paper	Furnace
Age (in years)	57	43	53	44
Industry sector	Production	Production	Production	Production
Main product/s	Steel constructions	Logs and lumber	Kraft paper and packaging materials	Industrial furnaces
Number of employees	396	922	1143	167
Legal form	Limited partnership company	Joint stock company	Joint stock company	Joint stock company
Ownership form	Common property	Common property	Common property	Private property
Privatization status	Partially privatized	Partially privatized	Partially privatized	Privatized
Profitability (ROE)	Satisfactory/normal (10% or over)	Low (from 5% to 9.9%)	Insufficient (up to 4.9%)	Loss
Data collection period	12th to 30th January 2004	2nd to 20th February 2004	9th to 27th February 2004	8th to 26th March 2004

These four companies were selected, firstly because they are medium- to large-sized companies, each with total employees ranging from 167 to 1143; secondly because they belong to the production sector (manufacturing and other production), which is the key industry sector in Bosnia and Herzegovina; thirdly because of the agreement from the key persons in these companies to let the authors carry out the research study with them; and fourthly and most importantly because of the differences in the companies' business results

(i.e., degrees of current business difficulties, levels of crisis severity, levels of financial performance achieved, stage of the recovery process, etc.). Namely, it was assumed that in-depth qualitative analysis of contrasting cases (i.e., Steel and Wood vs. Paper and Furnace) may enable subsequent identification and understanding of differences between the troubled and well performing companies respectively (regarding the formulation and implementation of comprehensive recovery strategies) by providing the answers to the following research questions: "Do companies that reverse financial and/or competitive decline adopt different generic strategies from those that continue to decline into severe distress?"; "If yes, which of these strategies contribute to the corporate recovery?"; and "Do troubled and well performing companies differ in the intensity and timing of implementation of selected generic strategies?".

The "old" medium- and especially large-sized companies are still (i.e., at the initial phases of transition) considered as the pillar of the Bosnian economy and reflect most of the characteristics and difficulties particular to complete population of the "old" Bosnian firms. The economic reform in these companies reflects the trend in most companies. Consequently, the corporate recovery practice in these four companies may reflect the key situations a number of "old" companies (especially those that operate in the production sector) may find themselves in.

4.1. Why did the case study companies undertake the corporate recovery process?

4.1.1. Cross-case analysis of the major causes of crisis in the companies at the beginning of transition and in 2003

After the war in Bosnia and Herzegovina ended in (end of 1995), all four case study companies found themselves in a crisis situation. According to assigned importance, unexpected changes in environment (average rank 1.3), changes in market demand (3.0), government policy (3.8), and inadequate management (4.8) were the most significant causes of competitive and financial decline that were recognizable in the case study companies at the beginning of market transition (end of 1995). The remaining causes, quoted in the literature, were less significant to the top managers.

According to the interviews, some of the typical causes of competitive and/or financial decline were still recognizable in Paper and Furnace at the end of 2003. According to assigned importance, the most significant causes (mentioned in both companies) were: high cost structures (average rank 3.5), changes in market demand (4.5), government policy (6.0), and price and product competition (6.5). The remaining causes, quoted in the literature, were less significant to the top managers of Paper and Furnace.

4.1.2. Cross-case analysis of the prevailing level of crisis severity in the companies

According to the interviews, the prevailing level of crisis severity in 1995 in Steel and Wood was a medium level of severity, as the companies experienced illiquidity and indebtedness (see Table 3). However, their giro accounts were newer blocked (indicator of high severity). This situation of crisis in the companies lasted till the end of 1998 and 1999, respectively. Both companies operated with a loss. Following the time of acute crisis, Steel and Wood improved their performance and stabilized business operations. Their existence was no longer in danger. Although the companies operated with the insufficient profitability (up to 4.9 percent), they were already on the way out of crisis. The prevailing level of crisis severity in

Steel (between 1999 and 2000) and Wood (between 2000 and 2001) was low level of severity, as both companies experienced some declines in sales and income margins. Between 2001 and 2002, Steel was in a good position, however strategic reorientation was needed because of the changes in the business environment. Achieved levels of profitability during these two years ranged between 5 and 9.9 percent (low profitability). Wood was in the same position between 2002 and 2003. In 2003, Steel achieved satisfactory profitability (10 percent or above). Now it performs well and does not feel a need for implementation of a radical strategy. Wood will achieve normal profitability by the end of 2005. At present, the company performs well, but it still feels a need for implementation of some reorientation strategies.

Table 3: Degrees of business difficulties/levels of crisis severity/profitability (ROE) levels achieved in the case study companies between 1995 and 2003

Year/ Company:	1995 - 1998	1999	2000	2001	2002	2003
Steel	Acute crisis[1]/ Medium severity[b]/ Loss	On the way out of crisis[2]/ Low severity[c]/ Insufficient profitability		In a good position, but …[3]/ Low profitability		Operates well[4]/ Normal profit.
Wood	Acute crisis/ Medium severity/ Loss		On the way out of crisis/ Low severity/ Insufficient profitability	In a good position, but …/ Low profitability		
Paper	Acute crisis/ High severity[a]/ Loss			On the way out of crisis/ Medium severity/ Insufficient profitability		
Furnace	Acute crisis/ High severity/ Loss			On the way out of crisis/ Medium severity/ Insufficient profit.		Acute crisis/ High severity/ Loss

Remark: **1:** The company is in position when its existence is endangered - acute crisis; **2:** The company is on the way out of crisis (revival stage); **3:** The company is in a good position, but it will have to be strategically restructured; **4:** The company already operates well and it will remain so in the future.
a: blockade of the company's account; **b:** illiquidity/indebtedness; **c:** declines in sales/income margins

Paper and Furnace were in acute crisis between 1995 and 2000. However, in comparison with Steel and Wood, these two companies experienced serious liquidity problems and frequent blockades of their giro accounts, which indicate a high level of severity as the prevailing level of crisis severity in the entire period in question. In 2001, both companies marginally improved their performance and stabilized their business operations. The companies achieved the insufficient (up to 4.9 percent) profitability and in 2002 they were on the way out of crisis. The prevailing level of crisis severity in the companies, between 2001 and 2002, was medium level of severity, due to some periodical liquidity problems. In 2003, Paper consolidate its business operations, while Furnace's business results deteriorated to the extent that it found itself in a more difficult position (serious liquidity problems, high indebtedness, blockade of the giro account, loss, etc.), than it was during the first six years of the recovery process between 1995 and 2000.

4.2. How did the case study companies undertake the corporate recovery process?

4.2.1. Cross-case analysis of the most important strategic goals that the companies were/are trying to achieve

According to assigned importance, to survive present year (average rank 1.0), liquidity (2.3), cost reduction (3.0), breakthrough on new markets (5.8), increase in sales (6.3), and management quality (7.8) were the most important strategic goals, which all case study companies followed during the first few years of the corporate recovery process. However, breakthrough on new markets and management quality were much more important in Steel and Wood, as they were ranked higher then in other two companies. Output reduction (average rank 6.0) was important too, while it is not listed among the top ten in Paper and Furnace. The top managers of Paper and Furnace concentrated more on activities linked to the achievement of the following strategic goals: output increase (rank 3) and increase in working assets (5), and on productivity (4) and product/service quality (6), respectively. These strategic goals are not listed among the top ten in Steel and Wood.

In 2003, strategic goals like to survive present year, liquidity, increase in sales, output reduction, (and to some extent) management quality, cost reduction, modernization and reconstruction of machinery and IT equipment, output increase, increase in working assets, and flexibility, fell in importance (i.e., have not been listed in some companies among the top ten strategic goals for 2003), while breakthrough on new markets, introduction of new technology, market share, productivity, product (service) quality, profit, employee skills development, acquirement of ISO standard, reliability of deliveries, return on equity (ROE), and creativity and innovations became more important to the companies (i.e., ranked by more companies or received higher ranks for 2003). For the first time in 2003 profit became one of the most important (top ten) strategic goals of Steel and Wood (average rank 6.0). The top managers of Paper and Furnace were more interested in activities linked to modernization and reconstruction of machinery and IT equipment (average rank 5.5) and reliability of deliveries (7.5).

4.2.2. Cross-case analysis of changes in strategic behavior of the case study companies while attempting to recover

Table 4 presents the most important types (groups) of strategies, which were implemented in the case study companies, at different degrees of business difficulties and profitability (ROE) levels achieved (between 1995 and 2003). The evaluation of the suitability of the chosen comprehensive strategies, in terms of theoretical perspectives, will be presented in Section 5.

Table 4: Most important types of strategies that were implemented in the case study companies (between 1995 and 2003) at different degrees of business difficulties

Degree of business difficulties in a company* / Implemented strategies	Acute crisis[a]				On the way out of crisis[b]				In a good position, but …				Operates well			
	S	W	P	F	S	W	P	F	S	W	-	-	S	-	-	-
Reaction	**8**	**7**	**5**	**5**	-	2	2	**4**	3	2	-	-	-	-	-	-
Revitalization	2	3	4	3	3	**7**	**6**	**4**	**4**	1	1	-	-	1	-	-	-
Reorientation	-	-	1	2	3	1	2	2	3	**6**	**7**	-	-	**4**	-	-	-
Growth	-	-	-	-	**4**	-	-	-	-	1	2	-	-	**5**	-	-	-
Profitability (ROE)	Loss				Insufficient (up to 4.9%)				Low (5 to 9.9%)				Satisfactory (10% or over)			

Remark: **a:** medium level of crisis severity in Steel and Wood and high level of severity in Paper and Furnace; **b:** low level of crisis severity in Steel and Wood and medium level of severity in Paper and Furnace.
     [*] **S** – Steel, **W** – Wood, **P** – Paper, **F** – Furnace.

The table shows that, between 1995 and 2003, the case study companies did not form and implement a "clean-", but some kind of "hybrid-" type of comprehensive strategies (just like the average "old" Bosnian company from the research sample), which consisted of a combination of generic strategies that, according to the presented classification (see Subsection 3.2.2.), belong to different groups of the corporate recovery strategies. However, it also reveals some differences between the companies regarding the formulation of comprehensive strategies at given degrees of business difficulties, levels of crisis severity, and profitability (ROE) levels achieved (between 1995 and 2003). Namely, it is evident that more than a half of the most important strategies (i.e., eight and seven of ten strategies) that were implemented (respectively) in Steel and Wood, during the time of acute crisis (while companies operated with a loss), belong to the group of reaction strategies. Revitalization strategies were not frequently implemented, while reorientation and growth strategies were not in use. In contrast, Paper and Furnace implemented only five (of ten) strategies that according to the theoretical model belong to the group of reaction strategies. Revitalization strategies were quite important too, especially in Paper. Reorientation strategies were not frequently implemented, while growth strategies were not in use. It is important to note that, during the time of acute crisis, the prevailing level of crisis severity in Steel and Wood was medium level of severity, while Paper and Furnace experienced a high level of severity, due to the serious liquidity problems and frequent blockades of their giro accounts, which even more emphasize the need and importance of implementation of drastic strategic measures (reaction strategies) in these two companies. While all four companies implemented reaction strategies for cost reduction (average rank 2.3), changes within management teams (3.5) and finding new markets (5.3), only Steel and Wood made an attempt to restructure their debts (average rank 2.5), introduce strong central financial control (5.0), and establish co-operation partnerships with domestic and foreign companies (6.5). Raising additional finance (2.5) and gradual quality improvement (10.0) were important strategies too. Beside these strategies that belong to the group of reaction strategies, Steel and Wood implemented some revitalization strategies for marketing (7.5) and productivity (8.5) improvements. In contrast, the top managers of Paper and Furnace were more preoccupied with the preparation for privatization (average rank 6.0; revitalization strategy), work force reduction – soft (6.5; reaction strategy), and employee skills development (9.0). Only Paper decided to concentrate on core business/activities (rank 3.0; revitalization strategy), to improve existing products (7.0; revitalization strategy) and develop some new products (8.0; reorientation strategy), while only Furnace choose subcontracting (6.0; revitalization strategy), market penetration (7.0;

reorientation strategy), and modernization of technology and IT equipment (8.0; reorientation strategy). Furnace was in a crisis situation again in 2003. During this year, the company started with implementation of diversification and some other growth strategies (i.e., product-market diversification, different financial strategies for financing growth, organizational culture development, and improvement of educational structure). Some of the revitalization and reorientation strategies (i.e., subcontracting, employee skills development, modernization of technology and IT equipment, cost leadership strategy, and Total Quality Management) were still much in use, while reaction strategies lost in significance.

Table 4 shows that, during the second stage, when the companies were on the way out of crisis situation, as they marginally improved their performance and stabilized their business operations (they operated with the insufficient profitability), more than a half of the most important strategies (i.e., seven and six of ten strategies) that were implemented (respectively) in Steel and Wood belong to the group of revitalization strategies. Some of the reaction and reorientation strategies were still in use, while growth strategies were not in the forefront of these "old" companies. In contrast, Paper and Furnace implemented only four (of ten) strategies that according to the theoretical model belong to the group of revitalization strategies. Reaction and to some extent reorientation strategies were important too, while growth strategies were not in use. The prevailing level of crisis severity in Steel and Wood was low level of severity, while Paper and Furnace experienced a medium level of severity. The companies concentrated on further cost reduction (average rank 3.8; revitalization strategy), on changes within management team (2.0, except Steel; reaction strategy), market penetration (6.7, except Wood, reorientation strategy), and preparation for privatization (10.3, except Paper; revitalization strategy). In comparison with Paper and Furnace, which decided to concentrate on core business/activities during the time of acute crisis, Steel and Wood implemented this strategy after they improved their performance and stabilized their business operations (average rank 1.0; revitalization strategy). Moreover, both companies decided to work on additional improvement of productivity (2.0), employee skills development (8.0), and marketing improvements (8.5) (revitalization strategies). In contrast, Paper and Furnace introduced a strong central financial control (average rank 2.5; Steel and Wood implemented this reaction strategy during the time of acute crisis) and continued with implementation of work force reduction strategies (5.5; revitalization strategy). Product improvement (average rank 6.5; revitalization strategy) was important only in Steel and Paper, while Wood and Furnace decided to improve (modernize) their technology and IT equipment (7.5; reorientation strategy). Co-operation with domestic and foreign partners (rank 6.0; reaction strategy), finding new markets (7.0; reaction strategy), and recruitment of specialists (8.0; revitalization strategy) are strategies that were implemented only in Steel; new strategic alliances (5.0; reorientation strategy), and introduction of project/crisis teams (9.0; reaction strategy) in Wood, engagement of outside consultants (2.0; reaction strategy), further productivity improvements (4.0; revitalization strategy), improved marketing (7.0; reaction strategy), and market development (10.0; reorientation strategy) in Paper, and finally, productivity improvement (3.0; reaction strategy), subcontracting (6.0; revitalization strategy), and cost leadership (9.0; reorientation strategy) in Furnace.

According to Table 4, only Steel and Wood entered the third stage. Both companies were in a good position, but strategic reorientation was needed for adaptation to the changes in the business environment. Achieved levels of profitability ranged between 5 and 9.9 percent (low profitability). More than a half of the most important strategies (i.e., six and seven of ten strategies) that were implemented (respectively) in Steel and Wood, during this stage, belong to the group of reorientation strategies. Reaction strategies were still somewhat important in

Steel. Revitalization and growth strategies were not much in use. Both companies decided to enter new markets with their existing products, using the existing technology (average rank 2.5), develop new strategic alliances (3.5), penetrate existing markets (5.5) and modernize technology and IT equipment (6.5; Paper and Furnace implemented this reorientation strategy during the second stage). In addition, the top managers from Steel devoted most of their time to activities linked to the further product improvement (rank 1.0; reorientation strategy), co-operation with domestic and foreign partners (3.0; reaction strategy), gradual quality improvement (6.0; reaction strategy), recruitment of specialists (8.0; revitalization strategy), and improvement of educational structure (9.0; growth strategy). Wood's top managers were more interested in activities linked to organizational culture development (rank 4.0; growth strategy), Total Quality Management (7.0; reorientation strategy), product development (8.0; reorientation strategy), product-market diversification (9.0; growth strategy) and further cost reduction (10.0; revitalization strategy). Therefore, looking at the characteristics of corporate strategies that were implemented in both companies it can be seen that Steel decided to build its future on product improvement and market development, and Wood on market penetration and market development strategies. Regarding generic business strategies, the findings show that Steel implemented a differentiation type of strategy, while Wood chose a cost leadership strategy. Review of the most important strategic goals and previously presented data does not indicate development of the "stuck in the middle strategy" in these companies during the period in question.

Table 4 shows that only Steel achieved satisfactory profitability (above 10 percent). In 2003, it started with implementation of diversification and some other growth strategies. Reorientation strategies were still much in use, while reaction and revitalization strategies lost in importance. At present, the company performs well and does not feel a need for implementation of a radical strategy.

Finally, it is important to add that, between 1995 and 2003, only Steel and Wood were successful in implementation of long-term business co-operation strategies. According to the interviews, co-operation strategies were not at the forefront of the other two companies.

The cross-case analysis revealed that generic strategies that were implemented in Steel and Wood at the beginning and during the corporate recovery process harmonies with the companies' strategic goals on the one end and, on the other, with the causes of crisis situation, different degrees of business difficulties, levels of crisis severity, and profitability (ROE) levels achieved between 1995 and 2003. This assertion to some (lesser) extent applies also to Paper (between 2001 and 2003). However, it is not valid in the case of Furnace, especially in 2003, when the company started with implementation of diversification and some other growth strategies, instead to focus on (continue with) implementation of revitalization strategies, in order to stabilize its business operations (as in the case of Paper between 2001 and 2003), and afterwards on reorientation strategies, in order to adapt to the changes in the business environment. According to the theoretical model, growth strategies are suitable in the advanced phase of the corporate recovery process, when a company does not have liquidity problems, its profitability is satisfactory (in line with the owner's demands), it has rebuilt its competitive advantage and is able to operate as a viable market unit, i.e. when the strategic reorientation is done (as in the case of Steel in 2003).

5. CROSS-METHOD ANALYSIS AND COMPARISON WITH THE CONCEPTUAL MODEL

A successful corporate recovery process consists of a number of generic turnaround strategies used in combination (Slatter, 1984: 78). The "right" combination of generic turnaround strategies (first salient dimension) that "old" companies have to implement in each of the identified four stages of the recovery process, in order to achieve a successful recovery, was identified in Subsection 3.2.2. (see Figure 2). The proposed model suggests that the choice of generic turnaround strategies coupled with the quality of their implementation will in most cases influence the financial performance (second salient dimension) of the companies in the particular stage of the recovery process as well as the stage's duration (third salient dimension).

The major generic strategies, which the "old" Bosnian companies commonly use (implemented) in their recovery process in order to reverse the threatening declines in performance, were identified in Subsections 3.2.3. and 4.2.2. However, about 80 percent of the companies are still in some kind of crisis situation (see Subsection 3.1.2.). The companies found themselves in crisis for many different reasons. Most of the problems (causes) mentioned can also be found in problem companies in developed market economies. However, some of them can be related specifically to radical political and economic changes in Bosnia and Herzegovina (see Subsections 3.1.1. and 4.1.1.). The analysis of the company variables revealed a significant deterioration of profitability levels between 1996 and 2003 in most of the companies. The analyses of crisis severity and current business difficulties revealed an increase in the general level of crisis severity in the companies between 1995 and 2003 and a high extent of company (current) business difficulties (see Subsection 3.1.2. and Figure 1).

The previous discussion about the companies' strategic behavior between 1995 and 2003, together with the results from the above mentioned analyses, established a sound foundation for answering the following question: is it the selection of unsuitable generic strategies at the beginning and during the corporate recovery process, the poor and inconsistent implementation of otherwise sound strategies, the negative influences from the business environment, or the combination of all factors stated, that resulted in a significant deterioration of the companies' financial results between 1996 and 2003?

The comparison between the proposed conceptual model of the corporate recovery process (see Figure 2) and corporate practice in Bosnia and Herzegovina (see Subsections 3.2.3. and 4.2.2.) revealed some differences between the combination of generic strategies recommended by theory and the generic strategies chosen and implemented in the "old" companies (including Paper and Furnace) during the time of acute crisis. In view of the external and internal causes of competitive and/or financial decline (see Subsections 3.1.1. and 4.1.1.) and theoretical (Slatter's) criteria for the selection of generic (turnaround) strategies, besides those most frequently implemented, the companies should, at the very beginning of the investigated period, have assigned more importance to the implementation of the following reaction (radical) strategies: introduction of project/crisis teams, engagement of outside consultants, strong central financial control, debt restructuring, co-operation with domestic/foreign partners, output reduction, productivity improvement, raising additional finance, effective communication, organizational changes and decentralization, initiating cultural changes, etc. From among them, only debt restructuring and co-operation with domestic/foreign partners

appeared on the list of the top ten strategies, for the first time in 2003. Consequently, it is hard to conclude that the average "old" Bosnian company (e.g., Paper or Furnace) included consideration of specific causes of financial and/or competitive decline in its initial recovery response.

Furthermore, comparisons between the proportion of companies that implemented some generic strategies from the group of reaction (and revitalization) strategies between 1996 and 2003 (see Table 1), and the total proportion of the companies that were in some kind of crisis situation (see Figure 1) during the same period, revealed that, for the first time in 2001, the proportion of companies that implemented some reaction (and revitalization) strategies exceed the proportion of companies that operated with a loss or insufficient profitability. According to the analysis of the company variables, this is exactly the year when the companies succeeded in reversing the steep declines in their profitability levels. It seems therefore that until 2001 there were more companies that needed revitalization than companies that had implemented some of the radical strategic measures. In comparison with the proportion of companies that operated with a loss and insufficient profitability, there were many companies (like Paper and Furnace) that implemented some reorientation and growth strategies, instead of focusing on the recommended radical measures, i.e., reaction (and for some of them revitalization) strategies.

Yet another problem is connected with the average number of implemented reaction (and revitalization) strategies between 1995 and 2003 (see Table 1), at given degrees of companies' business difficulties, levels of crisis severity, and profitability (ROE) levels achieved (see Subsection 3.1.2.). Namely, most of the companies (including Paper and Furnace - see Table 4) implemented on average only three to five strategies that according to the theoretical model belong to the group of reaction (and revitalization) strategies. Moreover, their implementation was poor and inconsistent, as indicated by the analysis of the company variables (e.g., profitability levels between 1996 and 2003). Consequently, in most of the companies (including Paper and Furnace), it is hard to confirm a connection between the crisis severity and the immediacy (speed and intensity) and nature of their (initial) recovery response.

Therefore, with reference to the previously posed question, it is probably fair to conclude that the inability of the average (troubled) "old" Bosnian company from the sample (e.g., Paper or Furnace) to achieve stability and move (faster) toward the more advanced stage/s of the recovery process can be ascribed to the selection of unsuitable generic strategies at the beginning of (and during) the corporate recovery process (as indicated by the analysis of the companies' strategic behavior between 1995 and 2003), and to the poor and inconsistent implementation of selected strategies (as indicated by the analysis of the company variables, e.g. achieved profitability levels between 1996 and 2003). Furthermore, the cross-method analysis also revealed that the negative influences from the business environment and the overloading of the top management with the process of privatization (as indicated by the analysis of the causes of competitive and/or financial decline), just additionally contributed to deterioration of the companies' operations/financial performance. This interpretation can be substantiated by the results of the analysis of the companies' strategic goals between 1995 and 2003 (Mujagić *et al.*, 2005a).

In contrast, looking at the characteristics of the corporate restructuring in well performing companies (e.g., Steel and Wood), it can be seen that the companies' initial recovery response (see Subsection 4.2.2.): include consideration of specific causes of financial and competitive downturn (see Subsection 4.1.1.); couple the severity of the crisis situation with the nature

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(content) and speed (immediacy) of taking (initial) recovery actions (see Table 4); involve a wide spectrum of crisis management (reaction) and defensive restructuring (revitalization) activities that range from retrenchment to revenue-generation, and which are initially (in the first stage) oriented toward halting financial decline and ensuring survival, and afterwards (in the second stage) toward marginal improvement of the companies' financial position (cash flow) and stabilization of business operations; while only in the third and fourth (advanced) stages, the response include a wide range of strategic and operating activities, which are oriented toward deep restructuring (reorientation strategies) - in the third stage (in both companies), and recovery and growth (growth strategies) - in the fourth stage (in Steel), as well as toward the maintenance of the companies' operating efficiency (through the third stage in Wood and both stages in Steel). Thus, their recovery process consists of four stages, and each recovery stage consists of both operating and strategic components, where in each consecutive stage of the recovery process a different emphasis is given to the implementation of operating or strategic activities. The analysis also revealed that the choice of generic turnaround strategies coupled with the quality of their implementation enhanced the financial performance of the companies in each particular stage of the recovery process and shortened the stages' duration.

As the results (findings) from the analysis of successful cases (i.e., Steel and Wood) turned out to support the proposed integrated model of the corporate recovery process and its propositions that were presented in Subsection 3.2.2., while the analysis of problematic cases (i.e., Paper and Furnace) produced contrasting results but for predictable reasons (i.e. companies are unsuccessful because of the selection of unsuitable generic strategies and the poor implementation of the selected generic strategies), a literal and theoretical replications can be claimed, respectively. Moreover, the analysis of contrasting cases revealed that companies which reversed financial decline adopted different generic strategies from those that continued to decline into severe distress, allowed subsequent identification of particular (group of) generic strategies that contribute to corporate recovery, and confirmed that these two groups of companies differ in the intensity and timing of implementation of selected generic strategies (see Subsection 4.2.2.).

The above presented findings indicate the unsuitability of existing corporate practice in the average "old" Bosnian company and thus confirm the validity of the theoretical propositions about the required characteristics of the proposed conceptual model (see Subsection 3.2.2.).

6. SUMMARY AND CONCLUSIONS

The corporate recovery process in Bosnia and Herzegovina has been going on since the end of 1995, which is a long enough period to acquire quite a few experiences and results. However, Bosnian economic performance, during the transition period, has been rather modest and does not indicate that the country has been successful in adapting itself to the new circumstances in Central and Eastern Europe, which leads to assumption that the strategic restructuring attempts of "old" companies have not been particularly successful. This is not to deny the role and influence of the newly founded companies (between 1991 and 2003), but to stress that during the first phases of transition, the success of the restructuring process of the whole economy depends mostly on the companies that already existed before the transition began (Pučko, 1995: 299).

Summing up the findings it is probably fair to say that the "old" Bosnian companies have made more negative than positive results in their strategic restructuring. The analyses of the company variables and strategic behavior between 1995 and 2000 revealed a significant deterioration of the companies' business results and some serious weaknesses in their approach to strategic restructuring. Namely, about 80 percent of the "old" Bosnian companies are still in some kind of crisis situation, the privatization of the companies is not formally completed; the profit motive is not the most important motive in strategic behavior of the companies; massive labor force reduction is still needed in the companies; the process of implementing improvements of the existing and of building new, additional kinds of collaboration with partners in the developed market economies is not sufficiently strong; many companies are still implementing "stuck in the middle" business strategies; the companies are not focused on the implementation of market development strategies and on a philosophy of total quality management; and the renewal of their product range is still not one of the priority issues. For the first time in 2001, the companies succeeded in reversing the steep declines in their profitability levels (see Figure 1). Completion of the privatization process in most of the companies to some extent contributed to this encouraging improvement. Yet, it seems that the decisive factor was the implementation of some radical restructuring strategies.

Closer examination of the ways that the "old" companies have used when dealing with demanding strategic issues, the assessment of their achievements and examination of the validity of the theoretical propositions (see Subsection 3.2.2.) are based on data, gathered in a mailed questionnaire survey of a relatively large sample of "old" Bosnian companies and in a multiple-case study of a sub-sample of the companies surveyed. There are two main advantages in doing so. First, different methods were used for different purposes in the research ("methodological triangulation"). Namely, in the context of this study a survey was used to determine some general issues regarding the corporate recovery process in the Bosnian transitional conditions between 1995 and 2003. The main advantages of using a questionnaire survey were threefold. Namely, the use of survey resolved the potential problems of external validity, as it established the domain to which the study's findings can be generalized; increased the understanding of the basic characteristics of the corporate recovery process in Bosnian transitional conditions; and guided the authors in the subsequent investigation (i.e., multiple-case study), based on the preliminary results from the analysis of the returned questionnaires (i.e., 67 by the end of December 2003).

The prime concern of the multiple-case study was closer examination of some selected issues linked to the strategic restructuring of a sub-sample of the companies surveyed, in order to obtain a better insight into a less visible "reality" of corporate activity in Bosnia and Herzegovina. All issues that proved to be problematic or not quite clear from the preliminary results of the survey were examined further and in greater depth in the case study companies. The results from the qualitative (multiple-case study) data analysis provided some answers and explanations for all research questions (issues) that needed further clarification, including those that investigate differences in formulation and implementation of comprehensive recovery strategies between the well performing and troubled companies. Moreover, as the results (findings) from the analysis of successful cases turned out to support the proposed integrated model of the corporate recovery process and its (the study) propositions, while the analysis of problematic cases produced contrasting results but for predictable reasons, a literal and theoretical replications were achieved (respectively), which in turn enhanced the generalizability (i.e., external validity) of the overall research.

"Methodological triangulation" was achieved in the cross-method analysis (see Section 5), which introduced an integrated discussion about strategic behavior of "old" Bosnian companies, based on the results from the questionnaire survey and multiple-case study data analysis. The results from the cross-method analysis have helped in identification and understanding of differences between the recommended theoretical and concrete practical models of the corporate recovery, evaluation of the suitability of the implemented comprehensive strategy in the "old" companies (in terms of theoretical perspectives), and examination of the validity of the theoretical (model's) propositions.

The second advantage of using a multi-method strategy is that it enabled "data triangulation" to take place (Saunders *et al*, 2000: 99). The most important advantage presented by using multiple sources of evidence (i.e., questionnaires, interviews, observations, analysis of the companies' documentation and archival records) is the development of converging lines of inquiry. Thus, findings and conclusions in the study are likely to be much more convincing and accurate, as they are based on several different sources of information, following a corroboratory mode (Yin, 1994: 92). In addition, "data triangulation" resolved the potential problems of construct validity, because the multiple sources of evidence essentially provided multiple measures of the same phenomenon. Internal validity was not a concern of this exploratory oriented research (Yin, 1994: 35).

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FEMALE LABOUR FORCE PARTICIPATION AND FERTILITY IN CROATIA – WHAT CAUSES WHAT?

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1. INTRODUCTION

One of the most debated issues in demography and labour economics has been whether the female labour force participation causes a lower fertility rate or vice versa. In that sense the relationship between fertility and female labour force participation stands as a long-standing question in both economics and demography with a huge influence on the labour market. It is a question with no definite answer yet. Anyway, it has been generally argued that a negative association between these two variables is an evidence for the incompatibility of rearing children and staying in the workforce in contemporary society, where the place of work and home are in most cases spatially separated. Decreasing fertility is thus associated with the increasing employment of women and their rising employment is associated with falling fertility as well. It remains unclear whether these types of relationships are causal in one direction or the other. The question that also arose is whether there is any causal relationship at all.

Our research is motivated by the question "What causes what"? The revival of interest was encouraged by the studies which showed that a simple cross-country correlation coefficient

between total fertility and the labour force participation of women switched from a negative value before the 1980s to a positive value thereafter (Engelhardt, et. al. 2004).

This paper investigates that relationship from the theoretical and empirical perspective applying time series econometrics. Although the ordinary least squares method has long been used in literature when studying the relationship between fertility and female labour participation, there are some serious flaws in this methodology. As indicated, two or three variables may be highly correlated, but not necessarily causally linked. In econometrics, correlation equals causation only if variable is strongly exogenous. Otherwise, the parameter estimates are biased and inconsistent (Cheng, 1999). A major problem is that studies which have employed correlation-based methods do not explicitly address the issue of causation. As Granger (1980) notes it is conceivable that two variables could be highly correlated, but not causally linked.

It is not uncommon in economics that variables often reflect their own past behaviour, reflecting causality thus. In our paper we explore this causality for Croatia using annual data from 1961 to 2004 by applying Granger-causality test. Moreover, this study applies Granger causality test to examine the relationship between female labour force participation rates and fertility rates for Croatia using annual data from 1961 to 2004. As we earlier said causation could run from fertility to female labour force participation or vice versa.

It has been persuasively argued that the declining fertility is closely associated with the increasing number of women who receive a higher education. For this reason the paper will also examine the role of education on female labour force participation and fertility as well. The causality results were often found to be highly sensitive to model specification (Cheng, 1999). Bivariate causality tests have fallen out of favour because causality tests are obviously extremely sensitive to omitted variables. So we used not only a bivariate but also a multivariate model to examine the Granger causality between fertility, female labour force participation and higher education.

Previous questions also produced two main hypothesis of our research:

- Increase in female earning power raises the opportunity cost of the time allocated to childbearing, which, in turn, induces females to participate in the labour market and to have fewer children

- There is a negative relationship between women's access to a higher education and fertility rate

As is often cited that important propositions are testable with individual data, understanding of trends and patterns in fertility behaviour at the societal level requires aggregate analysis (Ryder, 1980). Some effects that are present at the individual level do not necessary mean it will be present at aggregate level and vice versa. Although, aggregate time series analysis has some shortcomings they are necessary to understand some trends at societal level.

The paper is organized as follows. In the next section we discuss some theoretical arguments and present some empirical evidence of previous studies concerning this issue. In the third part special attention is placed on econometric methodology which is used in the research. Fourth part of this paper delivers main research results and discusses it. The final section reviews the findings from the study and discusses policy implications consistent with the results.

2. THEORETICAL BACKGROUND AND EMPIRICAL STUDIES

2.1. Economics of fertility

Economists have developed two primary models to explain how fertility might respond to economic factors. One, that we will consider in this paper, is the New Home Economics represented by Becker and others (Becker, 1960, 1981; Willis, 1973, 1987) and other is more socio-economic approach primarily represented by Easterline (1987) and his relative income theory[1]. Gary Becker, a Nobel Prize laureate, formulated economic theory of fertility in the basic demand theory framework. The economic approach of fertility emphasizes the effects of parents' income and the cost of rearing children. Moreover, Becker and others adapted their model of economics of fertility to the household production paradigm, linking the fertility decision to the other economic processes, including female wages and labour force participation as well. For the purpose of this paper it is important to address the relationship between fertility and female labour force participation. It is often stated that low fertility rates have resulted from women's increased labour force participation, but, as Macunovich (1996) says you are equally likely to hear that it is the other way around: fertility declined, and therefore women were "freed up" to enter the labour force. Which is a true statement or shall we ask more appropriate question which statement is more empirically grounded? We will find out from a Croatian experience.

According to the economic model of fertility female wages have a negative impact on fertility. The negative impact of female wages increases as more women are active on the labour market. In economics, we are well familiar with two effects when income rises: an income effect that causes us to purchase more of all "normal" goods, and a price effect as rising wages raise the opportunity cost of any activities requiring an expenditure of our time. Opportunity cost for women of time spent with children might be thought of as the wage that is foregone by not working outside the home. In this context, women's time is crucial in determining levels of fertility. As Becker (1981) pointed out that children are more time intensive than other goods: that is, the opportunity cost of children represents a higher proportion of their total cost, than does the opportunity cost of most other goods. As a result, as woman's income rise the cost of children rises more rapidly than the cost of other goods and services.

Economic theory of fertility assumes incompatibility between labour force participation of women and having children. Although, in some countries empirical analysis seems to support this theory some studies showed that this may not be true in all contexts, especially when generous family-friendly policies (e.g. flexible working hours for working mothers, the option to work from home where feasible, crèche facilities in the workplace etc.) exist that ease work-child incompatibility. Namely, several recent papers (Brewster, Rindfuss, 2000; Ahn, Mira, 2002; Engelhardt et al., 2004) suggest that the link between fertility and women's employment has weakened owing to the greater availability of childcare services, family policies (such as state –mandated maternity leave), and changing attitudes towards working mothers. Referring to this evidence, they argue that changes in the institutional context at the macro-level must have enabled women in some countries to combine work and childcare more successfully. Availability of affordable childcare has been demonstrated in numerous studies to be an important factor in determining the labour force participation rates of mothers

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[1] More on Easterline's relative income model see (Easterline, 1987)

with young children. Sweden is a positive example of this statement, and Italy is often cited as an example how low fertility is closely linked with a scarcely provided institutional childcare.

2.2. Fertility, female employment and educational attainment

Prior to industrialization, work and child rearing tasks could be performed more or less simultaneously. In historical and contemporary pre-industrial societies, non-mechanized agricultural tasks and piecework could be combined with child supervision with relatively little danger to the child or marked loss of economic productivity. As industrialization proceeded, however, childcare and economically productive work became increasingly incompatible. Today, work sites are usually some distance from home, and work schedules, set by employers, lack the flexibility required by children. The presence of children at the work site, whether an office or factory, would put at risk productivity; moreover, mechanical and electronic equipment may create considerable danger to young children. Thus, women – and it is women who typically care for children – who wish to participate in the labour force must either limit their fertility or make alternative arrangements for the care of their children (Brewster, Rindfuss, 2000).

Increasingly, women in advanced industrialized societies are choosing both strategies. As a result, fertility rates in most countries are below the level needed for population replacement[2], and a rising proportion of children are in non-maternal care while their mothers work. Concern with endemic low fertility and rising rates of non-maternal care has stimulated considerable interest among researchers and policy makers in the relationship between childbearing and women's employment, and in the impact that paid childcare and various policy measures have on this relationship (Brewster, Rindfuss, 2000). For instance, in Sweden the fertility rate decreased significantly during the 1990s when female and male employment fell (Da Rocha, Fuster, 2006). In East Germany fertility rates collapsed at the same time that unemployment rose during the transition to democracy (Kreyenfeld, 2000). More generally, in most OECD countries the fertility rate shows a negative response to unemployment along the business cycle (i.e., fertility is procyclical). In Croatia total fertility rate fell well below replacement level, and current level of 1,3 children per women is enough only to replace two third of the total population. Persisting very low fertility rate will have negative impact on economic growth as young generation become smaller and smaller and number of older population is growing considerably. According to the some population projections (Gelo, Akrap, Čipin, 2005) by the year 2050 half of the population will be older than 50 years, and it will be unmanageable to finance almost half of the population in the retirement. If situation remains unchanged pension systems will probably ultimately collapse.

Existing macro studies on the relationship between total fertility and women's employment can be divided into those that analyze macro-level data on cross-country basis and those that apply the methods of time-series analysis. In their empirical analysis using OECD data, Ahn and Mira (2002) find that the cross-country correlation between female participation and fertility rates became of positive sign by the late 1980s (Da Rocha, Fuster, 2006). They pointed out that the reverse of the sign of the cross-country correlation between participation and fertility rates occurred simultaneously with the emergence of high unemployment rates. Indeed, Spain and Italy, which have exhibited the highest unemployment rates among OECD countries, have the lowest fertility rates.

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[2] The replacement level of 2.1 children per woman is the level needed for a generation to replace itself exactly in the next generation

International evidence suggests that relationship between fertility trends and trends in female labour force participation may be more complicated than researchers first predicted. The trends of these main variables indicate that the countries that now have the lowest levels of fertility are those with relatively low levels of female labour force participation and that countries with higher fertility levels tend to have relatively high labour force participation rates. It has to be stressed that this positive association is a recent development; just to decades ago, the country-level correlation between fertility and female labour force participation rates was negative (Brewster, Rindfuss, 2000). It should be noted that is not childbearing per se but child rearing, the process of caring for and raising a child from birth to adulthood that lead to the negative relationship between fertility and female labour force participation (Bernhardt, 1993).

What accounts for this reversal? Note that the relative positions of most countries have changed little. In some countries during the past quarter century (Sweden, Finland, Denmark), women have found ways to combine work and child rearing, and in other countries they have not. Where they have not, as in the Mediterranean countries, fertility has declined substantially. Therefore, a feasible explanation of the fertility-employment relationship must consider the social, economic, and policy contexts within which women make their work and fertility decisions (Brewster, Rindfuss, 2000).

Increased opportunities for women to work outside of the home, especially in professional jobs, along with a change in social values and contributed to the increase in unmarried singles in their twenties in Croatia. An increase in the fertility rate can have at least two opposite effects on female labour force participation. First, the presence of small children can increase the amount of work in the home, which reduces the desire of the mother to return to work. This hypothesis suggests that there is a negative relationship between fertility and female employment because of the strain between simultaneously performing the role of employee and mother. Akrap et. al (2003) in their survey of women with children showed that on average women in gainful employment tend to have fewer children and that women with children spend less time in the labour market. On the other hand, the presence of small children can increase the family's need for more income, which increases the necessity for the mother to seek outside employment. As we already said recent studies using macro-level data find that in several OECD countries the cross-country correlation between fertility rates and female labour market participation changed from a negative to a positive value in the 1980s. These studies observe that those countries with the lowest levels of fertility also have relatively low levels of female labour force participation and vice-versa (see e.g. Brewster and Rindfuss, 2000; Rindfuss et al., 2000; Ahn and Mira, 2002). So, the overall net effect of an increase in the fertility rate on female labour force participation could be either positive or negative depending on the relative strength of these effects. These recent findings for OECD countries have given support to the 'societal response' hypothesis in the demographic literature, which is the opposite of the traditional role incompatibility hypothesis. The societal response hypothesis suggests that societal level responses such as changing attitudes towards working mothers, increased availability of childcare and state-mandated paid maternity leave have eased the incompatibility between childbearing and female employment in most developed countries. This has led authors such as Rindfuss et al. (2000) and Brewster and Rindfuss (2000) to argue that we are only likely to see increasing female employment not leading to declining fertility in countries that have succeeded in minimizing the incompatibility between childbearing and female work.

In this paper we also investigate the relation between fertility rate and female education level in Croatia. Education is another important variable that should be included in the fertility and

female labour participation equations, and therefore we included it in our research. It has been argued that education (Cheng, 1999):

- Causes women to wait longer to marry;
- Facilities acquiring information on modern contraceptive devices and family planning;
- Enhances a woman's labour participation outside the home; and
- Negatively affect desired family size thereby reducing fertility.

Educational background is another determinant of leave and labour force exit patterns. In most countries, women who are well-educated or who hold jobs that require lengthy training periods are less likely to leave paid work; if they do, they return to work more quickly (Brewster, Rindfuss, 2000). More generally, education has been shown to increase the value of time in the work force and thus raises the opportunity cost of children (Cheng, Nwachukwu, 1997).

Some studies have shown that education delays a women's age at marriage, facilitates the acquisition and use of information on modern contraceptive devices and family planning, enhances women's participation in the labour force, and negatively affects desired family size, thereby reducing fertility (Cheng, Nwachukwu, 1997).

It is often asserted that the declining fertility rate in Croatia is closely associated with the increasing number of women who receive a higher education. One of the main reasons offered for this decline has been the postponement of marriage among young people. Specifically, it has been suggested that obtaining a higher education has led young women to remain unmarried in their twenties. We believe that only education at higher level significantly affects fertility, so we used only data of women who earned higher education.

2.3. Fertility and female labour force participation – empirical studies

Traditional regression methods (e.g. OLS method) have been used to analyze fertility patterns in developed countries. As stated, those traditional regression methods require assumptions of exogeneity for specific variables and implicitly assume all variables to be stationary. Fertility and its determinants are most likely non-stationary time series and such non-stationarity may undermine classical estimation and inference with traditional regression procedures leading to spurious inferences about relations among variables (McNown, 2003). We can solve this problem using contemporary time series econometric advancements i.e. causality, developed by Granger (1969). There are relatively few studies which have explicitly examined the direction of causality between female labour force participation and fertility. Most of studies had usually investigated only correlation and tested for neither existence nor direction of causality between fertility on the one side and female labour force participation on the other.

The comparison given in the text below shows conflicting results. Zimmermann (1985), using German time series data from 1960–1979, concludes from a modified Granger-causality test applied to first differences of all variables that increasing female employment does not cause decreasing fertility; rather, the reduction in births causes the increase in female labour force participation. Cheng (1996) using United States time series data from 1948 to 1993 and Cheng et al. (1997) employing Japanese time series data from 1950 to 1993 within a bivariate Granger causality model found short run unidirectional causality from fertility rates to female labour force participation. Michael (1985), using US time series data from 1948 to 1980, found short run bi-directional causality running between female employment and fertility. Finally, in the most econometrically sophisticated study to date Engelhardt et al. (2004)

applied error correction models (ECM) to examine the relationship between fertility and female employment for five European countries (France, West Germany, Italy, Sweden and the UK) as well as the USA from 1960 to 1994. These authors found long run bi-directional causality for all countries except Sweden. Let we look at this study more deeply. Engelhardt et al. (2004) is the only existing study in this area which employs an error correction model. By applying vector error correction models (a combination of Granger-causality tests with recent econometric time series techniques) they found causality in both directions. What have they done? First, they applied methods that are designed to avoid the problem referred to as spurious regression in the time series literature. Spurious regression refers to a situation in which the t-statistic indicates a significant relation between variables that are actually unrelated. This problem frequently plagues the analysis of variables with stochastic or deterministic trends, and it arguably afflicts existing efforts to estimate the causal relation between female labour force participation and fertility. Granger and Newbold (1974) proposed the following rule for detecting spurious regressions: If R^2 > DW-statistics or if $R^2 \approx 1$ then the regression must be spurious. Second, they estimated what are called 'vector error correction models' (VECM), which are the appropriate models to test for causality between stochastic trending time series. Engelhardt et al. (2004) said that their result is consistent with a recent hypothesis in the demographic literature according to which changes in the institutional context, such as childcare availability and attitudes towards working mothers, might have reduced the incompatibility between child-rearing and the employment of women.

It seems that the time series literature has neither come to an agreement on the presence nor on the direction of causality between fertility and female employment. This might be due to the fact that the literature has not yet taken into consideration several important recent developments in the econometric time series literature. Moreover, Michael (1985) does not consider the stationarity properties of the data at all and Zimmermann (1985) apply Granger causality tests to first differences and do not test for cointegration. Cheng (1996) and Cheng et al. (1997) apply a unit root test to the ordinary least squares (OLS) residuals and find no evidence of cointegration, but this approach has low power to reject the null of no cointegration. Obviously, more studies are needed.

3. METHODOLOGY

3.1. Data and definitions

Because the terminology used in this body of literature can be confusing, varying across articles and data sources, our methodology review begins by fixing terms of fertility, work and education.

Fertility is the least confusing term. It refers simply to giving birth (a live birth as opposed to a stillbirth) and is biologically limited to females between menarche and menopause (usually 15 to 49). To measure fertility, total fertility rate is used. The primary measure of fertility referred to in this article is the total fertility rate (TFR), an estimate of the number of children a woman would bear, if she survives to the end of her reproductive years and if the schedule of age-specific fertility rates remains constant over her reproductive lifetime

As an aggregate indicator for women's work, the female labour force participation rate is used. The female labour force participation rate is defined as the proportion of the female

population between the ages of approximately 15 and 64 who are either working for pay or seeking paid employment. We thought it would be better to exclude women above 50 years of age since their fertility rates are close to zero, so we calculated labour force participation rate for women aged 15 to 49, i.e. women in their reproductive ages. By work, we refer to market work, that is, work for pay. Work is typically indexed at the individual level as hours worked, whether part-time (fewer than 35 hours per week) or full-time (more than 35 hours per week). Unfortunately, because of lack of data our study does not distinguish between full and part-time employment.

According to the ISCED[3] Classification levels of education are divided to seven common stages. In Croatia we mostly divide our educational system into three broad levels, which can be convert to ISCED classification like:

1) Primary education - level 1 and 2;
2) Secondary education - level 3;
3) Tertiary education - level 5, 6 and 7.

Education level is usually measured in two ways: a) the number of people that completed secondary education divided by the population aged (16-64), and b) the number of people that completed higher education divided by working age population (16-64). For the purpose of our study we measured it as the proportion of women aged 15 or higher to the total female population aged 15 or higher who completed higher education.

Fertility rates are collected from the data published by Croatian Central Bureau of Statistics and Council of Europe data. Data for labour force participation rate and women's educational attainment are from the various population censuses conducted from 1961 to 2001. All data series begins in 1961 and end in 2004. Data for intercensal period are calculated by mathematical exponential interpolation.

3.2. Unit root and cointegration

Traditional regression methods have been used to analyze fertility patterns in developed countries and new developments in time series econometrics for nonstationary variables have not been used extensively. When series is non-stationary we said that series contains a unit root. Unit root tests indicate that one or more variables are non-stationary. Explicit test for unit roots used in this paper is Augmented Dickey-Fuller (ADF) test. It is one of the procedures for testing non-stationarity or for testing for the existence of a unit root. For an unbiased estimation of Granger causality, it is essential that all variables are integrated of the same order. To ascertain the order of integration of the variables in the model the Augmented

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[3] *International Standard Classification of Education (ISCED)* was designed by UNESCO in the early 1970's to serve 'as an instrument suitable for assembling, compiling and presenting statistics of education both within individual countries and internationally'. It was approved by the International Conference on Education (Geneva, 1975). Experience over the years with the application of ISCED by national authorities and international organizations have shown the need for its updating and revision. The present classification, now know as ISCED 1997, was approved by the UNESCO General Conference at its 29th session in November 1997. ISCED 1997 covers primarily two cross-classification variables: levels and fields of education. The levels are: Level 0 – Pre-primary education; Level 1 – Primary education of first stage of basic education, Level 2 – Lower secondary or second stage of basic education, Level 3 – (Upper) secondary education, Level 4 – Post-secondary non-tertiary education, Level 5 – First stage of tertiary education, Level 6 – second stage of tertiary education. See more: http://www.uis.unesco.org/ev.php?ID=3813_201&ID2=DO_TOPIC

Dickey Fuller (ADF) was applied. However, when one takes the first difference of each of the variables, then all variables must be each integrated of order one or I(1).

The basic idea of cointegration is that if there are economic time series that are integrated and of the same order (which means they are non-stationary[4]), which we know are related (mainly through a theoretical framework), then try to check whether we can find a way to combine them together into a single series which is itself non-stationary. If this is possible, then the series that exhibits this property is called cointegrated (Asteriou, 2006).

Consider two time series, x_t and y_t. Series x_t is said to Granger cause series y_t, if in a regression of y_t on lagged *y's* and lagged *x's,* the coefficients on the lagged *x's* are jointly significantly different from zero. When estimating the relation between two trending time series one often gets 'spurious regression' results, that is, a seemingly significant effect even though the variables are actually unrelated in a statistical sense. Detrending (that is, including a trend as a further regressor) often helps to eliminate spurious regression results. But as a recent econometric literature (started by Granger and Newbold 1974) shows, detrending does not help in case the variables are difference-stationary (a series is difference-stationary if its mean and its variance are constant over time after first differencing, but not in levels). Cointegration tests can be applied to test whether there exists a long-run relation between two difference-stationary variables. These tests aim to detect synchronous movements in deviations from the trends of both variables. Further, Engle and Granger (1987) have shown that the standard Granger causality test can be seriously wrong if the time-series are difference-stationary and cointegrated. Instead, we can apply vector error correction models (VECMs), which are the appropriate models for difference-stationary series that are cointegrated.

This implies that in testing for Granger causality, when TFR and FLFP are treated as the dependent variable error correction terms are not needed and the relationships can be modelled using a vector autoregressive (VAR) framework. However, when cointegration exists it is necessary to include a lagged error correction term. This is done because Engle and Granger (1987) caution that if the series are integrated of order one, in the presence of cointegration, VAR estimation in first differences will be misleading.

3.3. Granger causality

Correlation does not necessarily imply causation in any meaningful sense of that word. The econometrics is full of magnificent correlations, which are simply spurious or meaningless. Interesting examples include negative correlation between number of storks and the consumption of alcohol. Therefore, it is important to test relationship between variables and their statistical significance.

Causality in econometrics is somewhat different to the concept in everyday use. It refers more to the ability of one variable to predict (and therefore cause) the other. Suppose two variables, say y_t and x_t, affect each other with distributed lags. The relationship between those variables can be captured by a VAR (vector autoregressive) model. In this case it is possible to have that: a) y_t causes x_t, b) x_t, causes y_t c) there is a bi-directional feedback (causality among the variables), and finally d) the two variables are independent. The problem is to find an

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[4] A series is said to be (weakly or covariance) stationary if the mean and autocovariances of the series do not depend on time. Any series that is not stationary is said to be nonstationary.

appropriate procedure that allows us to test and statistically detect that cause and effect relationship among the variables (Asteriou, 2006).

Granger (1969) developed a relatively simple test that defined causality as follows: a variable y_t is said to Granger-cause x_t, if x_t can be predicted with greater accuracy by using past values of the y_t variable rather than not using such past values, all other terms remaining unchanged.

The cross-sectional studies did not, however, explicitly address the causality question. The standard Granger causality test is typically based on the estimation of a dynamic model with variables in levels or in first differences. We do this in our paper avoiding problem of spurious regression. The results of the Granger causality test critically depend on the lag length choice. Most often, the lag length choice is done in an ad hoc arbitrary manner. A too-short lag length results in estimation bias while a too-long lag length causes a loss of degrees of freedom and, thus, estimation efficiency. We were followed by the fact that nine month is a necessary period from conception till birth; so it is common in fertility models to lag all determinants by one year.

4. FINDINGS AND DISCUSSION OF RESULTS

For comparison, the conventional regression analysis (OLS method) is employed first to test for the relationship between fertility, female labour force participation, and education using undifferenced data. We constructed both bivariate and multivariate models, using total fertility rate (TFR) and female labour force participation (FLFP) as dependent variables. The results of the bivariate model (TFR dependent and FLFP independent variable) reported in Table 1 indicate that female labour participation is statistically significant and negatively related to the total fertility rate (TFR). Based on these results, we can draw the inference that female labour participation is a negative significant determinant of fertility in Croatia.

Table 1. Results of the Regression Analysis (bivariate model)

Dependent Variable: TFR
Method: Least Squares
Sample: 1961 2004
Included observations: 44
TFR=C(1)+C(2)*FLFP

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	4.139734	0.188001	22.01978	0.0000
C(2)	-0.038763	0.003075	-12.60746	0.0000
R-squared	0.790991	Mean dependent var		1.781364
Adjusted R-squared	0.786014	S.D. dependent var		0.269129
S.E. of regression	0.124495	Akaike info criterion		-1.284706
Sum squared resid	0.650963	Schwarz criterion		-1.203606
Log likelihood	30.26352	Durbin-Watson stat		0.325877

Source: Authors' calculation.

When we include higher education of women instead of female labour force participation, results are similar, although higher education of women has a greater negative impact on the total fertility rate than female labour force participation (see table 2).

Table 2. Results of the Regression Analysis (bivariate model)

Dependent Variable: TFR
Method: Least Squares
Sample: 1961 2004
Included observations: 44
TFR=C(1)+C(2)*HIGH_EDU

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	2.184529	0.024113	90.59555	0.0000
C(2)	-0.071263	0.003611	-19.73430	0.0000
R-squared	0.902652	Mean dependent var		1.781364
Adjusted R-squared	0.900334	S.D. dependent var		0.269129
S.E. of regression	0.084964	Akaike info criterion		-2.048793
Sum squared resid	0.303192	Schwarz criterion		-1.967694
Log likelihood	47.07346	Durbin-Watson stat		0.652745

Source: Authors' calculation.

On the other hand, multivariate regression model shows somehow different results. As we can see from the Table 3 in the multivariate model female labour force participation becomes insignificant. So, it is obvious that women's education attainment have had a greater impact on fertility rate in Croatia than women's employment. This finding can be explained by the fact that all socialist countries, including Croatia, had higher female labour force participation rates than other European countries.

Table 3. Results of the Regression Analysis (multivariate model)

Dependent Variable: TFR
Method: Least Squares
Sample: 1961 2004
Included observations: 44
TFR=C(1)+C(2)*FLFP+C(3)*HIGH_EDU

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	1.797547	0.356451	5.042903	0.0000
C(2)	0.007505	0.006897	1.088134	0.2829
C(3)	-0.083569	0.011870	-7.040640	0.0000
R-squared	0.905385	Mean dependent var		1.781364
Adjusted R-squared	0.900769	S.D. dependent var		0.269129
S.E. of regression	0.084778	Akaike info criterion		-2.031809
Sum squared resid	0.294682	Schwarz criterion		-1.910159
Log likelihood	47.69979	Durbin-Watson stat		0.672100

Source: Authors' calculation.

In the so called full-employment systems, they all had generous stated financed family policies that favoured working mothers and eased childrearing. In such conditions women, although employed, responded with a higher fertility. Similarly, when the female labour force participation is a dependent variable (results in Table 4), bivariate model shows that total fertility rate is significantly negatively correlated to the female labour force participation.

Table 4. Results of the Regression Analysis (bivariate model)

Dependent Variable: FLFP
Method: Least Squares
Sample: 1961 2004
Included observations: 44
FLFP=C(1)+C(2)*TFR

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	97.19183	2.915236	33.33927	0.0000
C(2)	-20.40601	1.618566	-12.60746	0.0000
R-squared	0.790991	Mean dependent var		60.84131
Adjusted R-squared	0.786014	S.D. dependent var		6.174951
S.E. of regression	2.856445	Akaike info criterion		4.981422
Sum squared resid	342.6898	Schwarz criterion		5.062522
Log likelihood	-107.5913	Durbin-Watson stat		0.264785

Source: Authors' calculation.

On the other hand, education is found to be directly related to female labour participation in the female labour participation equation and statistically significant as well (see Table 5). So, as regression results suggest, more women invest in their education more of them will be active on the labour market.

Table 5. Results of the Regression Analysis (bivariate model)

Dependent Variable: FLFP
Method: Least Squares
Sample: 1961 2004
Included observations: 44
FLFP=C(1)+C(2)*HIGH_EDU

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	51.56446	0.538294	95.79244	0.0000
C(2)	1.639762	0.080614	20.34095	0.0000
R-squared	0.907845	Mean dependent var		60.84131
Adjusted R-squared	0.905651	S.D. dependent var		6.174951
S.E. of regression	1.896716	Akaike info criterion		4.162514
Sum squared resid	151.0964	Schwarz criterion		4.243614
Log likelihood	-89.57532	Durbin-Watson stat		0.052053

Source: Authors' calculation.

Although fertility is inversely related to female labour participation and found to be statistically significant in bivariate model, in the multivariate model total fertility rate was found to be statistically insignificant. But if we look closely in all those models we can detect problem of spurious regression, as Durbin-Watson (DW) statistic is smaller than R^2. This is a reason why we employed advanced time series econometrics.

Table 6. Results of the Regression Analysis (multivariate model)

Dependent Variable: FLFP
Method: Least Squares
Sample: 1961 2004
Included observations: 44
FLFP=C(1)+C(2)*TFR+C(3)*HIGH_EDU

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	43.39423	7.527667	5.764632	0.0000
C(2)	3.740042	3.437117	1.088134	0.2829
C(3)	1.906288	0.257808	7.394206	0.0000
R-squared	0.910432	Mean dependent var		60.84131
Adjusted R-squared	0.906063	S.D. dependent var		6.174951
S.E. of regression	1.892574	Akaike info criterion		4.179499
Sum squared resid	146.8554	Schwarz criterion		4.301148
Log likelihood	-88.94898	Durbin-Watson stat		0.071408

Source: Authors' calculation.

Although this regression method has been used in the past when studying the relationship between fertility and female labour participation, as noted before, equating correlation with causality is not accurate. As Granger (1980) noted, it is conceivable that two or more variables may be highly correlated but not necessarily causally linked. Consequently, these earlier studies that used regression methods instead of the causality technique were seriously faulty in their methodology. Our analysis employs methods suitable for non-stationary data. In testing for Unit roots, by applying so-called Augmented Dickey-Fuller test, we found difference-stationarity (I1) of our series (test results not shown).

Then, cointegration test are conducted to check whether the standard Granger causality test is appropriate. We used Johansen cointegration test because that test is more powerful in detection of long-run relationship than other tests. Prior to performing the Johansen test, the Akaike information criterion was used first to choose the optimal lag lengths. The cointegration test showed (see Table 7 for the results of cointegration test) that the all three variables are not cointegrated, and, therefore, the standard Granger causality test is appropriate in estimating the causality between selected variable. In this case error-correction model employed by Engelhardt et al. (2004) in their analysis is not required in the autoregressive process of estimating the causality.

Table 7. .Results of the Cointegration Tests

     Sample (adjusted): 1963 2004

     Included observations: 42 after adjustments

     Trend assumption: Linear deterministic trend (restricted)

     Series: TFR FLFP HIGH_EDU

     Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.326182	40.00350	42.91525	0.0949
At most 1	0.247916	23.42208	25.87211	0.0979
At most 2	0.238725	11.45595	12.51798	0.0747

Trace test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.326182	16.58141	25.82321	0.4935
At most 1	0.247916	11.96613	19.38704	0.4183
At most 2	0.238725	11.45595	12.51798	0.0747

Max-eigenvalue test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Authors' calculation

Table 8. Results of the Granger Causality Tests

     Pairwise Granger Causality Tests

     Sample: 1961 2004

     Lags: 1

Null Hypothesis:	Obs	F-Statistic	Probability
FLFP does not Granger Cause TFR	43	5.09446	0.02953
TFR does not Granger Cause FLFP		2.16894	0.14865
HIGH_EDU does not Granger Cause TFR	43	7.45256	0.00937
TFR does not Granger Cause HIGH_EDU		0.08321	0.77448
HIGH_EDU does not Granger Cause FLFP	43	1.11941	0.29639
FLFP does not Granger Cause HIGH_EDU		0.00440	0.94745

Source: Authors' calculation.

The results of the Granger causality test show causality among female labour force participation and total fertility rate, and among higher education of women and total fertility rate. We have not found causality between higher education of women and female labour force participation. If we look closer the results from the table 7 we can rejected null hypothesis that FLFP does not Granger-causes TFR, and conclude that female labour force participation negatively Granger cause total fertility rate, but not the opposite. If female labour force participation negatively Granger-causes fertility rates this provides support for policies such as paid maternity leave designed to encourage more working women to have children.

The results revealed causal relation between higher education and fertility in Croatia. It can be stated that higher education of women Granger-causes total fertility rate in Croatia. Nevertheless, it seemed from the regression analysis that education exerts a great influence on female labour participation than on fertility. But from the Granger causality test we can not say that causality among female labour force participation and higher education exist. Probably if we separated short and log run causality we could possibly find causality among those two variables but this is behind the scope of this paper and we leave this for some future studies.

5. CONLUSION AND POLICY RECOMENDATIONS

In this paper we applied recent econometric times series techniques to test for causality between fertility and female employment in Croatia from 1961 to 2004. We believe that higher education of women affect their fertility behaviour, therefore, this paper adapts a multivariate rather than a bivariate model to examine the Granger causality between fertility, female labour participation, and women's higher education in Croatia.

Our study is grounded in economic theory of fertility which emphasis negative association between female labour force participation and fertility. We modelled fertility as a function of female labour force participation and women's higher education, and female labour force participation as a function of total fertility rate and women's higher education.

Results of Granger causality test showed that female labour force participation negatively Granger causes total fertility rate, but not the opposite. As already stated, if female labour force participation negatively Granger causes fertility rates this provides support for policies such as paid maternity leave designed to encourage more working women to have children.

The results showed that the declining fertility is closely associated with increasing number of women who receive a higher education. Also, higher education of women negatively Granger cause total fertility rate in Croatia, not the opposite, what is consistent with the results of the regression analysis. The results also indicate that women's higher education is statistically significant and positively related to female labour force participation rate. However, Granger causality tests performed on the same data found that this conclusion is not completely accurate, and that causality does not exist.

We are aware of shortcomings of our study, but due to the fact that this is the first causality analysis concerning this issue further research and improvement of this paper in light of new findings in time series econometric is necessary. In addition, we believe that other variables

(namely sociological and psychological variables) are also very important and significant determinants of the fertility and female labour force participation, but appropriate time-series data for these variables seem not to be available.

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CROATIAN BANKING REGULATION PERSPECTIVES IN LIGHT OF EU ACCESSION

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1.   THE LOGIC OF BANKING REGULATION

In complex economy the bank sits in the middle of one of the most important processes – the process of continuous formation and usage of capital. In that capital inflows` process the bank becomes regulator of cash flows that depend on banks` proper business policy. This important function created banks as specific "public" institutions with the highly regulated institutional conditions.[1]

The source of every banking regulation lies in different goals of banks and regulatory bodies. The major aim of banks is, of course, shareholders` wealth (or profit). Because of that reason banks take risks, more precisely they produce systematic risk. This risk exists due to the interconnection of different banks. Financial difficulties of one bank can cause problems for the total banking sector. The major goal of regulators is minimization of that risk. One of the old Federal Deposit Insurance Corporation (FDIC) chairman[2] - William Seidman – noted that the total financial system is based mainly on trust. However he noted that if the trust disappears – it disappears very rapidly. Due to that fact regulators are always concentrated on risk exposures of banks.

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[1] Katunarić, Ante, *Banka – principi i praksa*, Stanbiro, Zagreb, 1973., pg. 22.
[2] Sinkey, Joseph F., *Commercial bank financial management*, Prentice Hall, New Jersey, 1998., pg. 236.

Banking regulators have few different goals[3]:

- ❖ Increasing soundness and stability of banking system,
- ❖ Building standardized framework for banking activities, and
- ❖ Promoting transparency of banking activities and regulators` controls.

Banking regulation accomplishes safety of banking system by the regulation processes and by risk limitations for banks. In that sense, regulators aims to connect banks` risk exposures with their capital. Capital has a protective function, where in the case of losses it is used for paying depositors.

Moreover, banking regulation exists with the aim of lowering banking crises` events. The overview of banking crises in last 30 years is as follows:
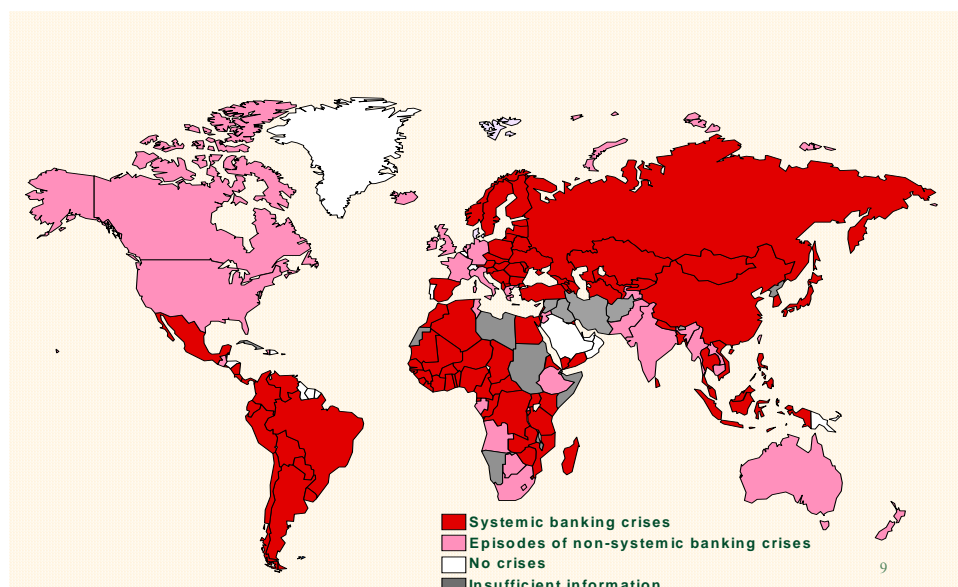
Figure 1 Banking crises from late 70s

Source: Caprio, G., Klingebiel, D., *Scope and fiscal costs of banking crisis: compilation of information on systematic and non-systematic banking crises from 1970s onward*, October, 1999, www.worldbank.org

As it can be seen in last thirty years or so banking crises appeared in almost all countries. The only real difference in the above crises was in their scopes – they ranged from serious systematic crises to the minor crises of smaller banks.[4]

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[3] Bessis, Joel, *Risk management in banking*, John Willey & Sons, Hoboken, 2004., pg. 25.

[4] Prga, Ivica, Šverko, Ivan, *Microeconomic roots of banking crises: lessons from Croatia*, Conference «An Enterprise Odyssey: Building Competitive Advantage, Ekonomski fakultet Sveučilišta u Zagrebu, Zagreb, 2004., pg. 2.

2.   CURRENT BANKING REGULATION IN THE REPUBLIC OF CROATIA

Currently, Croatian banking system is under very developed and strict regulation. Most of the regulation comes from the Croatian National Bank's (CNB`s) activities for proper foreign debt management. All of these measures resulted in regulation costs substantially higher then in other accession countries.

The banking system is regulated with the few acts. The most important one is Banking Law[5]. Banking Law has conducted in 2002. This Law regulates conditions for the establishment and operation of a bank, as well as for the supervision of bank operation. Banking Law was the first Banking Act covering risk management as a special topic. Besides the credit risk, it mentions and covers liquidity risk, interest rate risk, and other market risks.

Besides the Banking Law, very important parts of banking regulation in Croatia are different decisions of the Croatian National Bank. The most important ones are as follows:

- ❖ Decision on the capital adequacy of banks,
- ❖ Decision on the classification of placements and contingent liabilities of banks,
- ❖ Decision on reserve requirements,
- ❖ Decision on the marginal reserve requirement,
- ❖ Decision on the limitation of banks` exposure to foreign exchange risk, and
- ❖ Decision on the minimum required short-term FX assets.

Decision on the capital adequacy of banks[6] is based on basic scopes on Basel Accords (the amendments of Basel I). The current version of capital adequacy defines basics of risk management in banks and it was conducted on January 2004. As a basic development it introduced capital requirements for market risks. This change was one of the most important banking regulatory changes in last few years and it gives to bankers incentives to build internal models for measuring market risks exposures.

Decision on the classification of placements and contingent liabilities of banks[7] defines criterion for classification of placements and contingent liabilities out of which the bank is exposed to credit risk. According to the above-mentioned decision placements are classified in three different risk groups*:*

- ❖ Fully recoverable placements (risk group «A»)
- ❖ Partially recoverable placements (risk group «B»)
- ❖ Irrecoverable placements (risk group «C»).

This decision is formed in the line with International Accounting Standard #39.

Decision on reserve requirements[8] defines obligatory reserve of banks. It is currently at the level of 17%, and is different for foreign exchange (FX) and for Kuna sources. For FX sources obligatory reserve is kept partially in kuna and partially in foreign exchange. For

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[5] Official gazette 84/2002
[6] Official gazette 17/2003, 120/2003, and 149/2005
[7] Official gazette 17/2003
[8] Official gazette 203/03, 145/04, 34/2005, 64/2005, 136/2005 and 146/2005

Kuna sources obligatory reserve is kept in kuna. Remuneration rate for HRK obligatory reserve is 0,75% and for FX funds 50% of market rate.

Decision on the marginal reserve requirement[9] requires banks to deposit 55% of funds taken from foreign sources or from related companies with the Croatian National Bank at 0% interest rate. The logic of this regulation is in the CNB`s intention to fight foreign debt of the country. According to the data from the end of 2006 foreign debt was above EUR 29b, or around 86% of the Croatian Gross Domestic Product (GDP). This decision makes foreign borrowings very expensive and therefore it forces banks to be more oriented on domestic sources of funds.

Decision on the limitation of banks` exposure to foreign exchange risk[10] has gone through many changes in last few years. The basic problem was the fact that it was not treating unilateral and protective currency clauses. From April 2003 this decision takes into account not only pure foreign exchange items but currency clause items as well.

Decision on the minimum required short-term FX assets[11] regulates the ratio of short-term foreign exchange assets (up to three months) and total foreign exchange liabilities. As some other decisions it went through many changes in last few years. Up until 2006 it was valid only for pure foreign exchange items, but after the last change it is valid for foreign exchange and for currency clause items.

Finally, during the end of December 2006 Croatian National Bank has introduced additional measure of obligatory T-bills. It requires banks with the yearly growth of loan portfolio above 12% to buy these T-bills at the interest rate of 0,75%. This new measure will be valid from January 2007.

Taking into account all above-mentioned measures and decisions one can assume that regulatory costs in Croatian banking system are very high. These costs mainly come from the fact that big parts of funds are imobilisated in some forms of reserves. This can be seen from the following example: let's assume that the bank takes a EUR 100 deposit from the domestic retail customer. The percentage of funds that can be used for placements is as follows:

Table 1 Retail deposit as a source of funds

Deposit amount	100
Obligatory reserve (17%)	17
- HRK obligatory reserve	8,5
- FX obligatory reserve	8,5
32%	23,50
Left for placing to customers	59,50

Source: Author

As it can be seen in this example, only 59,50% of the funds from this deposit can be used for loan placements. The situation is even worse if the deposit is taken from foreign customer or from related company (since the bank then needs to "invest" funds in marginal obligatory reserve).

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[9] Official gazette 146/2005 and 69/2006
[10] Official gazette 17/2003 and 39/2006
[11] Official gazette 104/2006

All together, above-mentioned reserves have substantial effects on total costs of borrowings. This can be seen from the calculation of total costs of borrowing from domestic and from foreign depositors. It is as follows:

Table 2 Total costs of funds

	EUR funds from resident	EUR funds from nonresident
Borrowings	10.000	10.000
Interest (3M EURIBOR)	**3,72%**	**3,72%**
Interest expense	372	372
Obligatory reserve (17%)	1.700	1.700
Kuna part	850	850
Income (0,75%)	4	4
Borrowings expense (1M ZIBOR)	38	38
FX part	850	850
With CNB	850	850
Income from obligatory reserve (1,75%)	15	13
32% amount	2.350	
Income (3,4% for EUR)	80	
Marginal obligatory reserve		5.500
Profit	99	17
Loss	410	410
Result	-310	-392
To be placed	6.800	3.650
Total costs	**4,57%**	**10,75%**

Source: Author

In the above table one can see the calculation of the total costs (interest + regulatory costs) of borrowing EUR funds from domestic client and from foreign client. The total costs are calculated assuming:

o   3M EURIBOR to be 3,72%
o   1M ZIBOR to be 4,48%

It is obvious that total costs are completely different: (a) 4,57% in the case of borrowing from domestic client, or (b) 10,75% in the case of borrowing from foreign clients. This situation was and still is the basic reason of higher interest rates Croatian banks are offering for domestic depositors.

Arhivanalitika has done the similar calculation in June 2005[12]. It shows that the total average regulatory cost for the whole Croatian banking system was at that time 1,48%. Moreover, the same study has noted the constant growth of total banking regulatory costs in the Republic of Croatia.

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[12] *Istraživanje za Hrvatsku udrugu banaka – Pokazatelji regulacijskog opterećenja banaka u šest zemalja srednje Europe i Hrvatskoj*, Arhivanalitika, Zagreb, June 2005., www.arhivanalitika.hr/IRO_glavna.pdf

3.   THE POTENTIALS OF BANKING REGULATION IN CROATIA

The banking regulation will surely go through major changes in next few years.

Banking regulation standardization is a regular part of European Union (EU) integration process. During 80s of the last century country members have introduces standardized minimal regulatory standards, like: standard banking licensing, minimal capital adequacy standards, etc. The common goal of these efforts is to form unified banking market in the whole Europe.

Introducing of Basel II standards would help realizing above-mentioned goals. The whole banking regulation around the globe will be more alike.

Croatian banking system is, in comparison with other sectors of Croatian economy, relatively well developed and has good perspectives for the future. In the last few years there were many efforts in adjustment of banking regulation with the standards of European Union. According to the International Monetary Fund[13], during the last few years, Republic of Croatia has introduced all required regulatory changes. In that sense, IMF has specially mentioned new Banking Law and Decision on capital adequacy. Moreover, according to the Croatian government[14], the biggest part of Croatian banking legislation is adjusted with European Union directives.

However, there is also the question of adopting Basel II accords in banking regulation. Due to that, Croatian National Bank is currently working on the new legislation that will be based on Basel II.

According to that, one can conclude that Croatian banking legislation is either well adjusted to the EU standards or it will be in few years from now. However, there will surely be major changes in some of the decisions mentioned in topic 2.

The problem lies in the fact that banking sector regulatory burden is substantially higher then in EU or in neighboring countries. This fact comes from different sources. First it is important to mention that the level of required capital adequacy in the Republic of Croatia is at the level of 10%, while in other countries is mainly at the level of 8%. Moreover, regulatory reserve is as well higher in Croatia then in other countries. It can be seen from the following table:

Table 3 Obligatory reserve comparison

Country	Required reserve	Remuneration rate
Croatia	17%	0,75% for HRK; 50% of market rate for FX
Austria	2%	ECB repo rate
Czech Republic	2%	Repo rate of CNB
Slovak Republic	2%	1,50%
Hungary	5%	Repo rate of HNB

Source: web pages of national banks of Austria, Czech Republic, Slovak Republic, and Hungary and author

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[13] *IMF Country Report No. 04/252*, IMF, October 2004, pg. 4.
[14] *Odgovori Hrvatske vlade na upitnik Europske unije – poglavlje 11.*, Vlada Republike Hrvatske, Zagreb, 2003. pg. 1.

Additionally, Croatian specialty is a marginal obligatory reserve. Similar regulation currently exists only in Serbia and Romania. However, according to Stabilization and Association Agreement, Republic of Croatia would need to remove all capital restrictions. The treatment of marginal obligatory reserve as a capital restriction is questionable, but there will surely be discussions on that topic.

Furthermore, Arhivanalitika has calculated average regulatory costs for accessing countries including Croatia. They are as follows:

Figure 2: Cost of regulation
Source: Istraživanje za Hrvatsku udrugu banaka – Pokazatelji regulacijskog opterećenja banaka u šest zemalja srednje Europe i Hrvatskoj, op.cit.pg. 67.

It is obvious that regulatory costs is corresponding countries are substantially lower then in Republic of Croatia (1,48%) and moreover they have different pattern – downward trend in last few years.

Therefore, on can assume few different ways of banking development in Croatia in the next few years:
   o   Adjustment of regulation with Basel II accords, and
   o   Lowering of regulatory burdens for Croatian banks.

Taking this into account, one can expect higher capital burdens (for both credit and operational risk) reflected in capital adequacy and potential lowering of obligatory reserve. The development of the Croatian banking system capital adequacy is as follows:
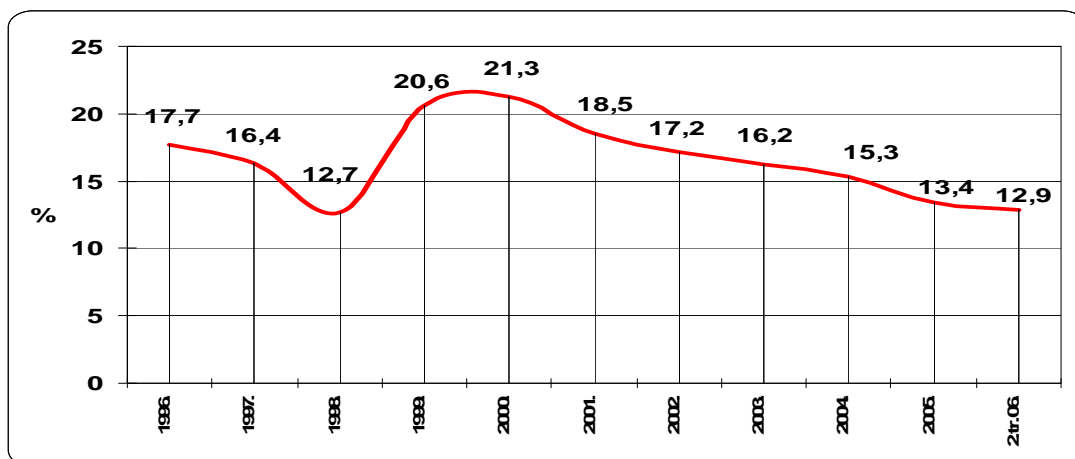
Figure 3 Development of Croatian banking system capital adequacy
Source: www.hnb.hr

It can be seen that there is a constant downward trend in capital adequacy movements. However, due to the high regulatory costs of borrowing funds from abroad (seen in table 2), Croatian banks from the second part of 2006 started with processes of new capitalisation. Out of ten biggest Croatian banks five of them had new capitalisations during the year 2006.

Table 4 New capitalisations of Croatian banks

Bank	Amount in EUR
Privredna banka	250.000.000
Raiffeisenbank	120.000.000
Hypo Alpe Adria	50.000.000
Volksbank	22.000.000
Erste bank	100.000.000
Total	542.000.000

Source: web pages of corresponding banks

Furthermore, in February of 2007 Zagrebačka banka d.d. (the biggest bank on the market) announced new capitalisation in the amount of EUR 480mln.

Taking into account these measures, one can expect higher capital adequacy ratios then the one recorder at the beginning of 2006. Therefore, the cushion for Basel II introduction should be big enough.

However, potential lowering of obligatory reserve would have substantial impact of Banking business in Croatia. Such a measure would unfreeze funds invested in obligatory reserve and potentially increase potential funds for loan placements. This would immediately have an positive impact on banks` profitability.

The keys of these mentioned changes are in hands of Croatian National Bank. It should be mentioned, that these changes were already announced few times by CNBs` officials. It is especially true for the process of lowering the rate of obligatory reserve.

4.   CONCLUSION

Croatian banking system is highly regulated and costs of regulations are substantially higher then in the peer country group. However, due to the processes of EU accession and European Monetary Union (EMU) introduction it is expected that banking regulation would change substantially. At the end of the day, Croatian banking regulation would go into direction of the European Union one.

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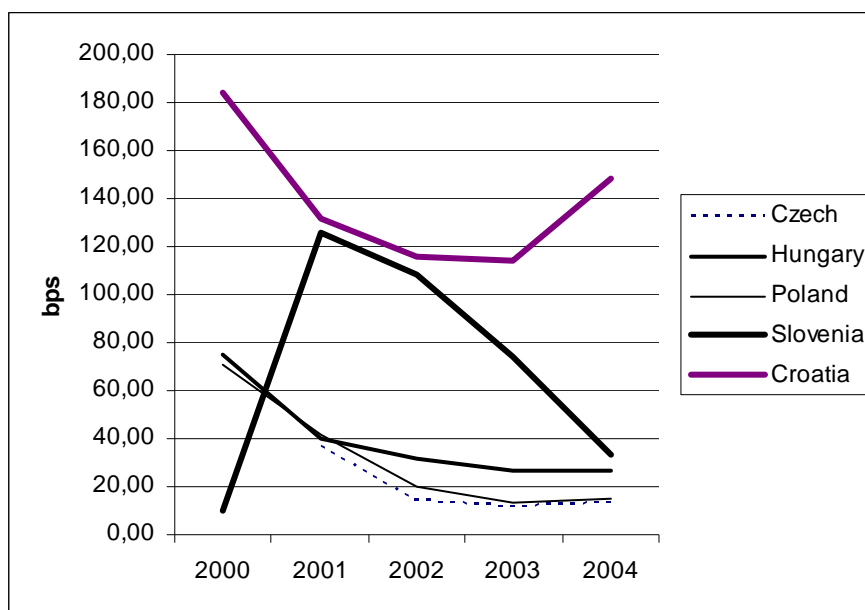**Istraživanje za Hrvatsku udrugu banaka – Pokazatelji regulacijskog opterećenja banaka u šest zemalja srednje Europe i Hrvatskoj**, Arhivanalitika, Zagreb, June 2005., www.arhivanalitika.hr/IRO_glavna.pdf [Accessed 27.12.2006]

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Web pages of Croatian biggest banks

REGIONAL INCOME AND UNEMPLOYMENT DISPARITIES IN CROATIA

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1. INTRODUCTION

Knowing the extent and structure of regional disparities is important not only for theoretical discussion, but it has a very strong policy dimension as it provides analytical grounds for devising special policies aiming to reduce these disparities. A number of studies have demonstrated that transition countries are particularly vulnerable to increasing regional disparities. Petrakos et al (2005a) investigated regional inequalities among new member states of European Union and found that significant levels of inequalities which are comparable to the ones in European Union. They also found that an increase in inequality has occurred in 1995-2000 period. Wostner (2005) provides evidence from Slovenia where disparities increased during 1990-1999 period in terms of economic activity measured by Gross Value Added but remained stable according to personal incomes. Petrakos et al (2005c) investigate potential impact of size on regional inequalities among 10 European transition countries and find only weak evidence that larger countries tend to have relatively higher levels of inequality, but the differences between groups diminished over time.

Our goal is to assess dynamics of regional disparities in Croatia, whether they are increasing in a period when country is entering into more mature phase of development characterized by stable growth of its economy and intensive preparations for joining the EU. This is very important issue since Croatia entered the beginning of accession process in 2000 with already accentuated regional disparities. Regional disparities in Croatia have been so far analyzed in several studies. Nestić and Vecchi (2006) have analyzed regional poverty in 2002-2004 period and found out the existence of significant regional variation in poverty rate as well as increasing inequality in comparison to 1998, particularly within urban areas. Puljiz et al (2005) designed economic and demographic index, each comprising three socio-economic indicators and applied it to regional and local level. At county level, six units have been recognized as disadvantaged comprising 18% of total population. At local level, half of total number of units comprising one fourth of the total population were categorized as disadvantaged. Cziraky et al (2003) combined structural equation econometric modelling with more descriptive cluster analysis techniques in order to obtain a development grouping of

Croatian municipalities. Results suggested existence of four different clusters of local units according to different development characteristics. Pejnović (2003) used seven socio-economic and demographic indicators to analyze regional differences at NUTS 3 and higher regional level. The analysis acknowledged high positive correlation between population distribution and concentration of economic activities.

We approach to regional disparities both from the perspective of income and unemployment in order to obtain more complete picture on the structure and the extent of total regional inequality in Croatia. Our special attention will be paid to within-regional disparities. Although regional disparities are usually analyzed only from point of the regions, we should not forget that within-regional disparities represent also an important part of total regional disparities. Problems which might occur from ignoring within-regional levels have already been recognized by some authors (Lipshitz and Raveh, 1998; Soares et al 2003), and. Rest of the paper is organised as follows. In next chapter main features of regional development in Croatia are presented. Used inequality measures and data sources are shortly explained in third chapter, while fourth chapter contains basic trends in unemployment and inequality disparities. Results of the regional inequality analysis are presented in fifth chapter, while last chapter contains conclusions.

2. REGIONAL DEVELOPMENT IN CROATIA

Territory of the Republic of Croatia is divided into county (regional) and local self-government units: 20 counties, the City of Zagreb and 550 municipalities. The City of Zagreb, as the capital of the Republic of Croatia is defined as a specific and unique territorial and self-government unit that has the status of both a town and a county. County units correspond to NUTS 3 level according to EUROSTAT methodology and represent basis for our analysis.[1]

With 56.542 sq. km of the surface area and 4.381.352 inhabitants or 78 in/sq km, Croatia is small country in terms of population and size. Despite its small size, it is quite diversified country with long history of pronounced regional disparities. While being part of ex-Yugoslavia, Croatia has been one of two most developed federal units, together with Slovenia. Still, internal differences were significant. Rapid post-war industrialisation in 1950-is and 60-is has resulted in massive out-migration from rural areas, formation of several strong urban centres and depopulated large rural areas. The consequence of such developments together with other important factors (e.g. transport isolation) was increase in regional differences. First categorisation of underdeveloped areas during 1960-is (1966-1970) included 19% of Croatia's area and 10% of total population (Bogunović, 1985). In the last period of categorisation (1981-1985) they covered 30,4% of total territory and 14% of total population.

Inherited regional differences have been further increased after 1990 due to the social and economic problems related to the process of transition and consequences of Serbian

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[1] The current administrative division of the Republic of Croatia fulfils EUROSTAT's criteria regarding the statistical division on NUTS 0 and 1 levels (Republic of Croatia), NUTS 3 level (counties) and LAU 2 level (local self-government units), while negotiations about appropriate units for NUTS 2 level are still underway. NUTS 3 units represent the basis for our analysis, while LAU 2 units will also be included when calculating within-county disparities.

aggression and war during 1991-1995.[2] War devastations have particularly hit some areas that have already been marked as disadvantaged but have also expanded the list of disadvantaged areas to previously well developed parts of the country such as Vukovar-Srijem County in Eastern Slavonia along the border with Serbia.

Latest population census results show that first five counties in terms of population encompass half of the total population, while other sixteen cover the other half. In many counties population sharply decreased in comparison to 1991 (Lika-Senj County has lost around 35% of its 1991 population). Data on education level show that education level of first three counties is almost three times higher than the one in last three counties. Similar situation is with GDP per capita data. Another relevant feature of Croatia's regional development is strong metropolisation, which is also the case with many other European countries (Petrakos, 2005a). According to Central Bureau of Statistics (CBS) data, City of Zagreb accounts for 17,5% of total population, but also 31,5% of GDP and 38,5% of total number of persons with university degree.[3]

Figure 1:   Map of Croatian counties[4]

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[2] Direct cost of war in Croatia is estimated to two Croatian 1990 GDPs, whereas indirect cost in terms of lost development and investment cycles are deemed to be much higher (National Strategy for Regional Development, 2005).

[3] Values are calculated on the basis of Population Census and First Release on county GDP for 2001-2003.

[4] Names of the counties on the map are in Croatian, while later we shall use their english names.

Table 1: Basic development indicators of the counties

County	Population 2001	Area (km²)	Population density	Population change 2001/1991	Share of highly educated popul. in popul above 15 yrs 2001[5]	GDP per capita 2003 € PPS (EU25=100)
Bjelovar-Bilogora	133.084	2640	50,4	93,4	6,6%	35,2%
Brod-Posavina	176.765	2029	87,1	102,6	6,9%	27,1%
Dubrovnik_Neretva	122.870	1785	68,8	98,6	14,0%	41,7%
City of Zagreb	779.145	641	1214,9	100,8	22,5%	84,5%
Istria	206.344	2835	72,8	101,4	12,3%	64,8%
Karlovac	141.787	3625	39,1	79,1	8,6%	36,6%
Koprivnica_Križevci	124.467	1735	71,7	97,0	7,0%	45,2%
Krapina-Zagorje	142.432	1229	115,9	96,4	5,8%	34,2%
Lika-Senj	53.677	5351	10,0	65,1	7,1%	48,7%
Medjimurje	118.426	729	162,4	101,0	6,5%	37,8%
Osijek-Baranja	330.506	4155	79,5	91,6	9,2%	35,5%
Požega-Slavonija	85.831	1823	47,1	87,5	6,7%	34,0%
Primorje-Gorski Kotar	305.505	3588	85,2	95,5	15,2%	55,7%
Sisak-Moslavina	185.387	4468	41,5	74,8	7,6%	36,3%
Split-Dalmatia	463.676	4542	102,1	98,5	13,5%	35,5%
Šibenik-Knin	113.304	2988	37,9	76,8	9,4%	32,8%
Varazdin	184.769	1261	146,5	98,8	8,4%	44,4%
Virovitica-Podravina	93.389	2024	46,1	90,8	5,7%	35,5%
Vukovar-Srijem	204.768	2454	83,4	90,3	6,7%	27,1%
Zadar	162.045	3625	44,7	76,8	10,6%	37,8%
Zagreb	309.696	3060	101,2	109,3	7,9%	35,0%
Croatia	4.437.873	56542	78,2	93,9	11,9%	47,2%

Source: Croatian Bureau of Statistics, results of the Population census 2001, County GDP 2001-2003 First Release; Eurostat

In following parts of the paper our attention will focus on the extent and dynamics of regional disparities in period 2000-2005 measured by personal income and unemployment indicators.

3. REGIONAL INEQUALITY MEASURES AND DATA

3.1 Inequality measures

Various measures can be employed in the analysis of regional inequality.[6] Our analysis will employ very common measures such as max/min ratio, coefficient of variation, Gini index and Theil index. Most simple measure is ratio of maximum and minimum value. The shortcoming of this indicator is that it is based only on extreme values and disregards values in the middle of the distribution. This problem is avoided when using population weighted

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[5] Includes population with non-university college degree and university degree.
[6] For more detailed review of regional inequality measures see B. Portnov i D. Felsenstein: «Measures of Regional Inequality in Small Countries» in „*Regional Disparities in Small Countries*", Springer, Berlin, 2005.

coefficient of variation or σ (sigma) convergence coefficient whose value is determined on the basis of all observations. Coefficient of variation is estimated from the formula:

$$CV_W = \frac{1}{\bar{y}} \sqrt{\left[\sum_{i=1}^{n} (y_i - \bar{y})^2 \frac{P_i}{P_{tot}} \right]}$$

where

y_i = variable under examination in region i

$\bar{y}$ = variable under examination in average country value

P_i = population in region i

P_{tot} = national population

n = number of regions

Gini coefficient is probably the most popular summary inequality measure, used vastly in individual-level income studies, but also for purposes of regional inequality analysis. Following formula calculates Gini for individual data:

$$G = \frac{1}{2n^2\bar{y}} \sum_{i=1}^{n} \sum_{j=1}^{n} |y_i - y_j|$$

This formula, however, is designed for individual data. Because the data under consideration here is grouped and, moreover, the partition is not equal, the following formula will be used for calculating the Gini for grouped data[7]:

$$G = 1 - \sum_{i=1}^{n} f_t (q_t + q_{t-1})$$

where q_t is the sum of the shares of income received by groups that have an income less than or equal to x_t, and f_t is the fraction of population in group (x_{t-1}, x_t). However, it should be noted that this formula gives an estimate of inequality only between the income groups, and ignores the inequality within the income groups.

Another popular inequality measure that will be applied here is Theil index which belongs to generalized entropy class of inequality measures. The measures in this class are given to the following generic formula:

$$I_\alpha = \frac{1}{\alpha^2 - \alpha} \left[\frac{1}{n} \sum_{i=1}^{n} \left[\frac{y_i}{\bar{y}} \right]^\alpha - 1 \right]$$

The parameter α represents the weight given to distances between incomes at different parts of the income distribution, and can take any real value. Most common values of α used are 0,1 and 2 (World Bank, 1999). Theil index T for individual data and α=1 is equal to:

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[7] Note that this formula assumes equal incomes within each subgroup (in this case: city), and therefore disregards inequality within the subgroups, thus systematically underestimating total inequality.

$$T = \frac{1}{n} \sum_{i=1}^{n} \frac{y_i}{\bar{y}} \ln\left(\frac{y_i}{\bar{y}}\right)$$

Since we deal with grouped data, we use following Theil index:

$$T = \sum_{i=1}^{n} w_i \ln \frac{w_i}{p_i}$$

where w_i is the group share of the variable under examination, p_i is the group population, employed population or workforce share, depending on the variable. Theil index compares the relative income (unemployment) share of each group with its relative share in the total population or total employed population (workforce) depending on the variable.

A very special and useful property of Theil index is its decomposability into subgroups. In other words, it enables us to calculate, in addition to between group (region) inequality, a within group inequality, which is not the case with Gini coefficient. In our case it means that we can calculate total regional inequality as a sum of between-county inequality and within-county inequality. The formula for this decomposition is:

$$T = T_B + T_W = \left[\sum_{i=1}^{n} w_i \ln\left(\frac{w_i}{p_i}\right) \right] + \left[\sum_{i=1}^{n} w_i T_i \right]$$

where w_i is the county share of the variable under examination, p_i is the county population or workforce share, depending on the variable and T_i is Theil-index for inequality within county i, which is given by:

$$T_i = \sum_{j=1}^{m} \left[w_m \ln\left(w_m / p_m \right) \right]$$

where w_m is the municipal share of the variable under examination, p_m is the municipal population, employed population or workforce share, depending on the variable and m is the number of municipalities belonging to county i.

It is important to notice that both Gini and Theil index satisfy all distributional axioms important for selection of inequality measure such as:
- anonymity (no personal characteristics other than the income determine the ordering principle),
- scale independence or income homogeneity (multiplying all incomes with the same positive scalar does not change inequality),
- population independence or population homogeneity (replicating each income an integral number of times does not change inequality),
- the transfer principle or Pigou-Dalton condition (transfers from a richer to a poorer person do reduce the measured inequality) (Cowell, 2000).

Gini and Theil index will take values between zero (perfect equality) and one (perfect inequality). Since both indicators satisfy the distributional axioms described above, their results should not differ with regard to the ordering alternative distributions from the same data set. They differ, however, in the weight they attach to a specific income in this

distribution, and therefore in their cardinal measurement of inequality.[8] For the Theil index, sensitivity for transfers in different income classes is defined by the parameter α; lower value of α implies a relative overweighting of lower income groups. The sensitivity of the Gini coefficient depends critically not on the size of the income levels but on the rank order position of the person in the ranking by income levels (Sen, 1973). Therefore, if more people are in the lower end of the income distribution, as is usually the case, these lower incomes will get a stronger weight.

3.2 Data

Our database includes personal income, employment and unemployment data collected for all regional (county) and local (municipal) units in period 2000-2005. Income data include data on total wages and pensions. Furthermore, data on wages include wages before and after taxation. GDP data, representing usual data for analysis of regional income disparities, are here used only partially due to the problem of availability. Namely, GDP data at county level are at the moment available only for 2001-2003 period. Data are collected from two sources. One is Croatian Employment Service (CES), which provided monthly data on unemployed persons for the period of analysis and second one is Croatian Tax Office, which provided data incomes and number of employed persons at local and regional level, collected from personal tax applications. In this case, data from Tax Office have some important advantages when compared to official statistical source, the Croatian Bureau of Statistics (CBS). First and most important, data from Tax Office are collected already at the local level, while CBS data are available only at regional and national level. Another problem with CBS data is that employment data are not collected on residence principle, but according to the seat of employer, which significantly reduces reliability of the data in cases where place of residence differs from working place at local and/or regional level. Finally, former source is based on a register covering all employed population, while the latter one collects data from a survey and is thus less reliable source.

4. INCOME AND UNEMPLOYMENT REGIONAL DISPARITIES

4.1 Comparison of Croatia and EU member states

Income per capita and unemployment rate are probably the most prominent indicators used in the analysis of regional disparities. This is not surprising taking into account that income per capita is standard indicator of achieved development level, and unemployment rate is key indicator for measuring structural difficulties of the economy. Analysis which takes into account both indicators should provide more complete picture about regional disparities. Before focusing attention solely of Croatia's internal disparities we compare the extent of regional disparities in Croatia with other European states. Since Petrakos et al (2005a,b) already performed comparative analysis of regional inequalities in member states and accession countries for 2000 on the basis of GDP per capita data, we shall use their results and add data for Croatia[9]. Table 1 presents values for observed countries according to max/min ratio and weighted coefficient of variations. Comparison reveals that Croatia can be

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[8] Inequality measures are called cardinal equivalent if one scale can be obtained from the other multiplying by a positive constant and adding or subtracting another constant (Cowell, 2000)
[9] Petrakos et al (2005) used also other years before 2000 to analyze dynamics of inequalities, but due to unavailability of data, we can not include Croatia in comparison.

assessed as country with medium regional inequalities in comparison with EU member countries. Countries with highest regional inequalities are Latvia, Poland and Estonia, while least differences are in Spain, Sweden and Slovenia. It is important to note that level of regional inequalities of transition countries is comparable (or even higher) with level of the EU-15 countries, meaning that new member states have in short period of 10 years reached levels of regional inequalities comparable to those in old member states (Petrakos, 2005a). Croatia also fits into this conclusion as its level of regional inequality is comparable or higher than in Austria, Finland, Denmark, Ireland and Greece, for example (which can be labelled as small countries). We also carry out comparison according to unemployment rate, but with smaller number of countries, due to problems with availability and reliability of data from EUROSTAT at NUTS 3 level. Figure 1 ranks selected EU countries and Croatia according to difference between maximum and minimum rate in 2004. Results are this time different for Croatia as its regional disparities are looking more similar to countries with highest unemployment disparities, such as Greece, Italy, Poland, Slovakia and Spain. On the other side, Ireland, Sweden, Slovenia and Denmark have the lowest regional disparities. It is also interesting to see that for some countries unemployment disparities in some countries are considerably different than income disparities. This is a case with Hungary, whose regional disparities in unemployment are much smaller than in incomes. Opposite example represents Spain with high unemployment and small income regional disparities. Finally, both comparisons in terms of GDP and unemployment confirm that regional inequalities in small countries can be significant just in case of the big countries.

Table 2: Comparison of regional inequalities on GDP per capita in 2000 at NUTS 3 level in the EU member states and Croatia[10]

Country	Max/Min ratio	Weighted coefficient of variation (CV$_w$)	Ranking according to CV$_w$
Latvia	4,3	0,74	1
Hungary	3,6	0,58	2
Estonia	2,7	0,56	3
U.K.	7,6	0,54	4
Poland	5,2	0,53	5
Belgium	4,8	0,53	6
France	5,9	0,52	7
Portugal	3,6	0,52	8
Germany	6,8	0,50	9
Romania	4,3	0,48	10
Czech Republic	2,8	0,45	11
Slovakia	3,5	0,41	12
Croatia	3,0	0,39	13
Bulgaria	2,6	0,39	14

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[10] 2001 year is used in case of Croatia since this is the closest available year for comparison. Luxembourg, Malta and Cyprus are left out due to their small size and lack of data at the regional level

Austria	2,5	0,36	15
Finland	2,2	0,32	16
Italy	2,9	0,31	17
Lithuania	2,4	0,31	18
Denmark	2,3	0,29	19
Ireland	1,9	0,29	20
Greece	3,2	0,27	21
Netherlands	2,6	0,26	22
Spain	2,3	0,25	23
Sweden	1,8	0,25	24
Slovenia	1,8	0,24	25

Source: Petrakos et al (2005), own calculation on the basis of CBS data
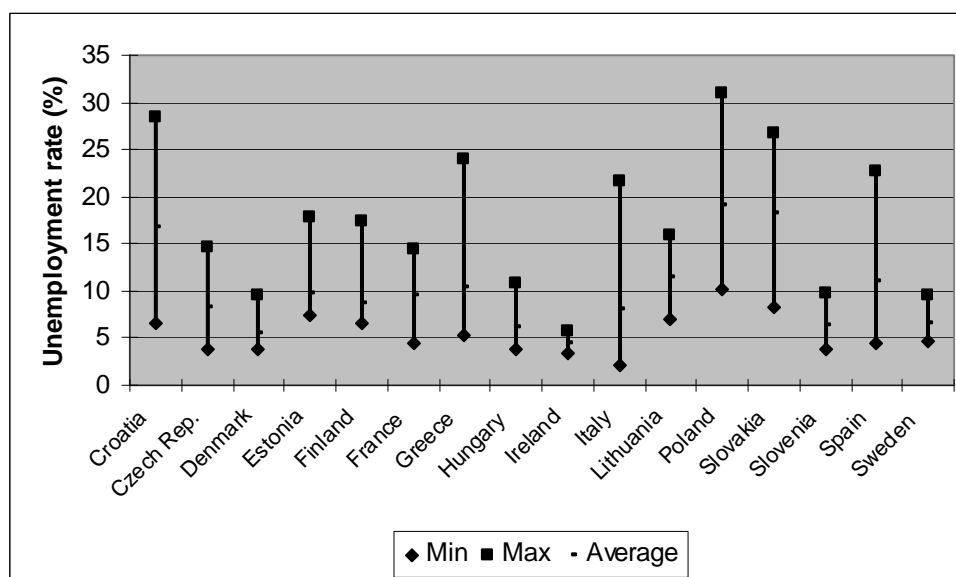
Figure 2: Max and min unemployment rate at NUTS 3 level in 2004

Source: Eurostat, calculation of the author on the basis of Croatian Employment Service and Ministry of Finance data

4.2 Basic trends in regional incomes and unemployment rate in Croatia

Three different income indicators are used in the following analysis. First one represents aggregate wages (after taxation) and pensions per capita, second is wage before taxation per capita, and third is wage before taxation per employee. The first indicator can be considered as approximation of disposable income per capita and will be shortly labelled as income per capita[11]. The second indicator provides more accurate approximation of economic strength of the unit as it excludes pensions and effect of taxes, depending solely on the level of wages and

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[11] Taking into account that these two types of incomes represent majority share of total personal income, they are considered as representative approximation of disposable personal income (Nestić, 2002).

employment rate.[12] It will be labelled as gross wage per capita. Third indicator represents average gross wage and it will be labelled gross wage per employee. Analysis will start by presenting various graphs on regional disparities, as they enable us to easily track position of each county within the total distribution. Later we shall turn to summarized information on disparities by using inequality measures.

Recovery of Croatian economy after short crisis in 1999 has been reflected both by income level and unemployment rates. At national level all three types of income have increased during 2000-2005 period. Highest growth recorded incomes per capita (wages and pensions) with total increase of 48,3%, wages before taxation per capita increased 45,2%, while wages per employee increased 27,3%. Most obvious reason for differences in growth rates between average wage and other two incomes is due to changes (increase) in employment. Such conclusions are in line with changes in unemployment rate which fell from 20,8% to 16,6%. Incomes had enjoyed relatively stable and continues growth, while unemployment rate after reaching its peak, 21,3% in 2001 fell sharply in 2003 and continued falling with somewhat slower rate[13].
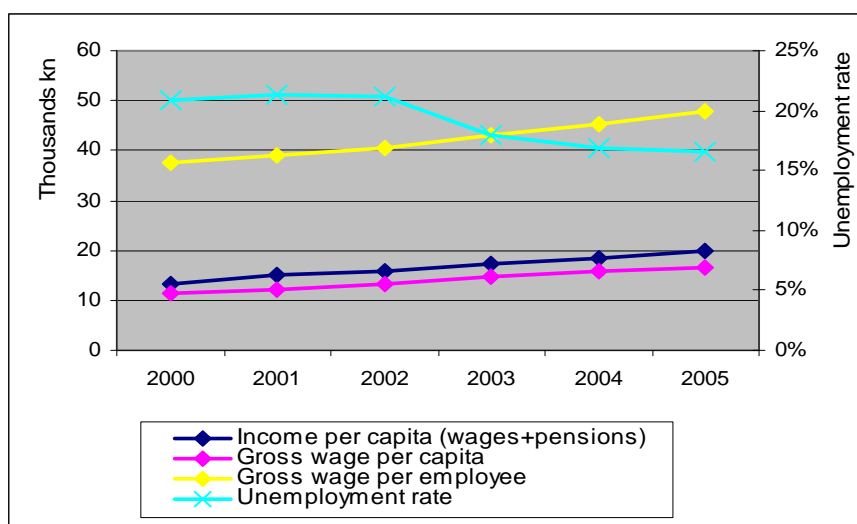
Figure 3: Incomes and unemployment at national level in Croatia

Figure 4 illustrates that per capita income has continuously increased in all counties, but they also clearly suggest that convergence has not occurred. Furthermore, figures show existence of significant differences in income levels. Counties can be broadly divided into three groups according to the income level: first one comprising city of Zagreb, second one with Primorje-Gorski Kotar and Istria County and third one comprising rest of the counties considerably lagging behind first two groups.[14] First three ranked counties were the only ones with above average incomes in 2000 (County of Zagreb joined them in 2005). Biggest changes happened

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[12] Tax reliefs for some areas, such as Areas of Special State concern and Hilly, Mountainous Areas and units on islands distort true picture of economic strength of the county units encompassing such areas. As the number of local units enjoying this privileged status is quite high (around 50% of total units) it is important to exclude taxes from the calculation.

[13] It should be noted that reduction of unemployed persons in 2003 was under the influence of change in methodology and more strict criteria used for registering unemployed status.

[14] When comparing position of city of Zagreb with position of other counties it should be taken into account that former represents biggest urban agglomeration in Croatia, while all other units are combination of urban and rural areas.

inside last group of counties as their distribution is much more dispersed at the end than at the beginning of the period. It should be noted that five counties with lowest income are all situated in eastern part of the country (Slavonia), suggesting the existence of geographically large disadvantaged area which surpasses county boundaries. In next step we shall consider relative positions of the counties according to different income concepts. Continuous growth happened to all counties in case of two other indicators, gross wage per capita and gross wage per employee, so we shall proceed with analysis of changes of relative positions.
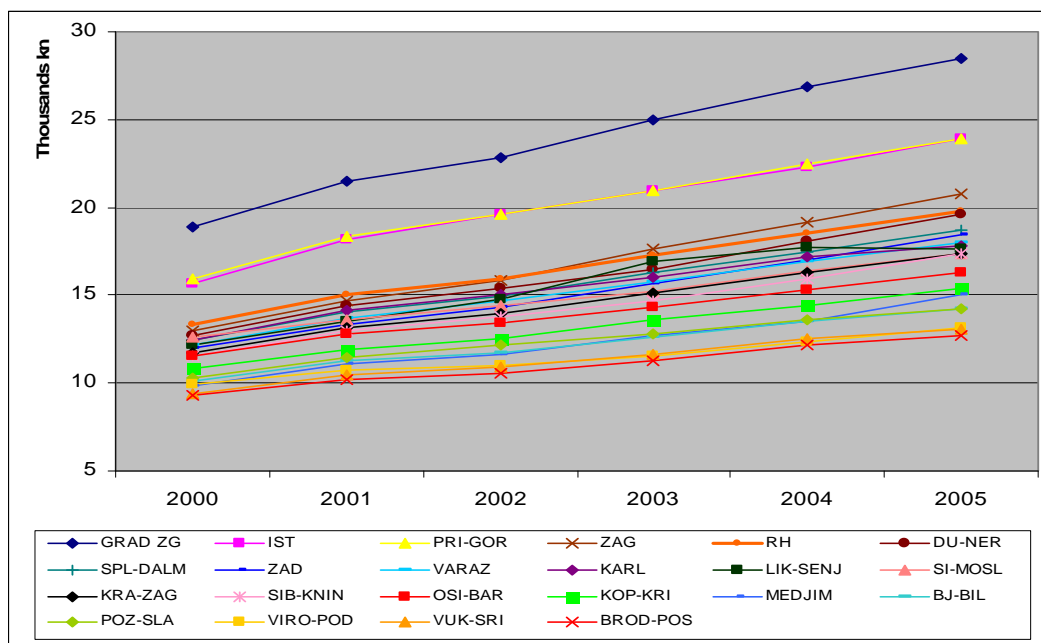
Figure 4: Incomes per capita at county level in period 2000-2005

Changes in relative positions according to income per capita are shown in Figure 5. In general, position of the counties in the observed period has been relatively stable. Changes mostly occurred at the lower part of distribution. Four counties with below average values deteriorated their positions for more than five percent, while only County of Zagreb improved its position for more than five percent. Such developments suggest that regional differences are increasing. Development of wages before taxation per capita is very similar to incomes per capita, meaning that pensions do not have any substantial impact on regional disparities.[15] Relative positions of counties are in general very stable except for the few counties in the lower part of the distribution and two individual cases in middle and upper part. Best results recorded County of Zagreb (nine percents increase with respect to national average), while County of Virovitica-Podravina was the biggest "loser" (minus eleven percents). It is interesting to note that biggest changes in relative positions of the counties occurred by indicator with lowest regional differences; in this case that is gross wage per employee. Many counties have considerably worsened their position while only few have slightly improved it. This time "losers" can also be found in the middle part of the distribution, while the only considerable advance can be noticed in case of city of Zagreb. Considering distribution of counties according to all three income indicators, results confirmed sharp division between city of Zagreb and rest of the counties. City of Zagreb further strengthened its superior

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[15] The only exception is Lika-Senj county whose ranking according to gross wage per capita is much lower than according to incomes per capita. Reason for the difference lies in the above average pensions per capita in this county.

position, followed by Istria, Primorje-Gorski Kotar and Zagreb County with above average values. All other counties still face below average or at best, average values.
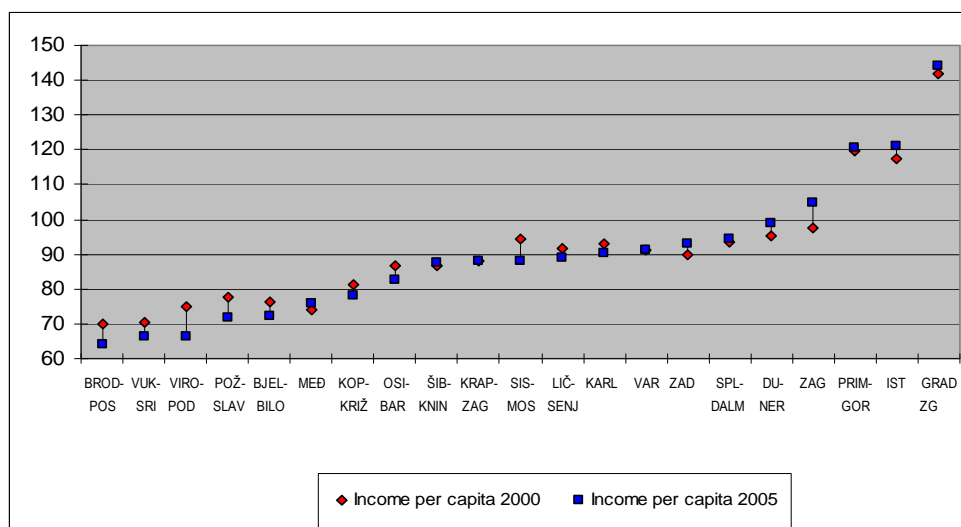
Figure 5: Relative changes in income per capita (Croatia=100)
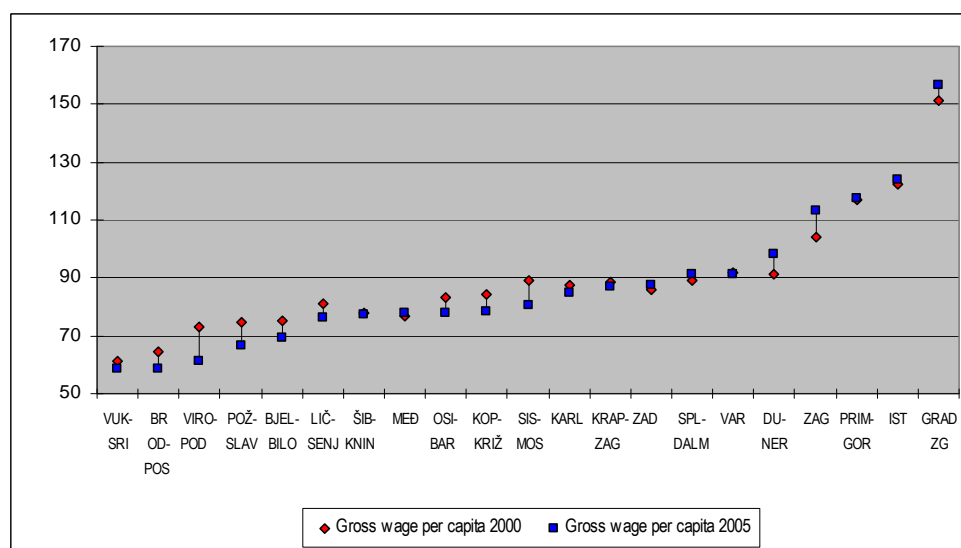
Figure 6: Relative changes in gross wage per capita (Croatia=100)
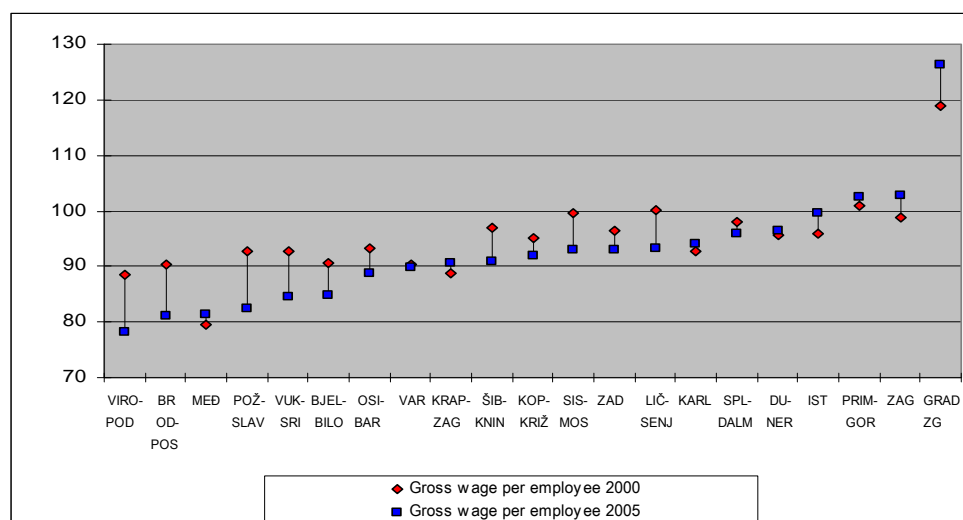
Figure 7: Relative changes in gross wage per employee (Croatia=100)

In case of unemployment, majority of counties followed changes in national unemployment rates. Fall in unemployment has been recorded in all but two counties, where stagnation occurred. Most significant drop of unemployment rates occurred in coastal counties like Šibenik-Knin, Zadar, Dubrovnik and Split-Dalmatia County, most probably due to strong development of tourism. Most of these counties had high initial unemployment rates, particularly Šibenik-Knin County whose unemployment rate in 2000 was over 30%. Counties with lowest initial unemployment rate also significantly reduced unemployment rate which makes bringing conclusions about change of disparities at this point difficult. Better evidence on dynamics of regional disparities provides change in relative positions of the counties.
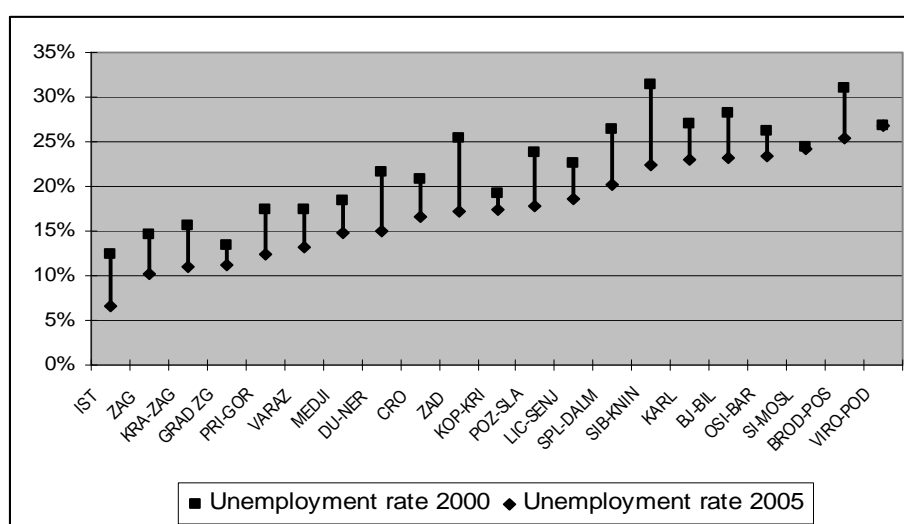
Figure 8: Changes in regional unemployment rates

Figure 9 indicates that large majority of counties experienced only minor changes in their relative positions. Still, few counties experienced significant changes. Most notable changes happened to Virovitica-Podravina and Sisak-Moslavina County with stagnating unemployment rate, whose relative position significantly worsened. On the other side County of Istria further strengthened its leading position. Previously mentioned coastal counties in the middle and southern Adriatic also improved significantly their positions with the exception of

Split-Dalmatia County which achieved only minor improvement. Such developments suggest that an increase in regional disparities has taken place.
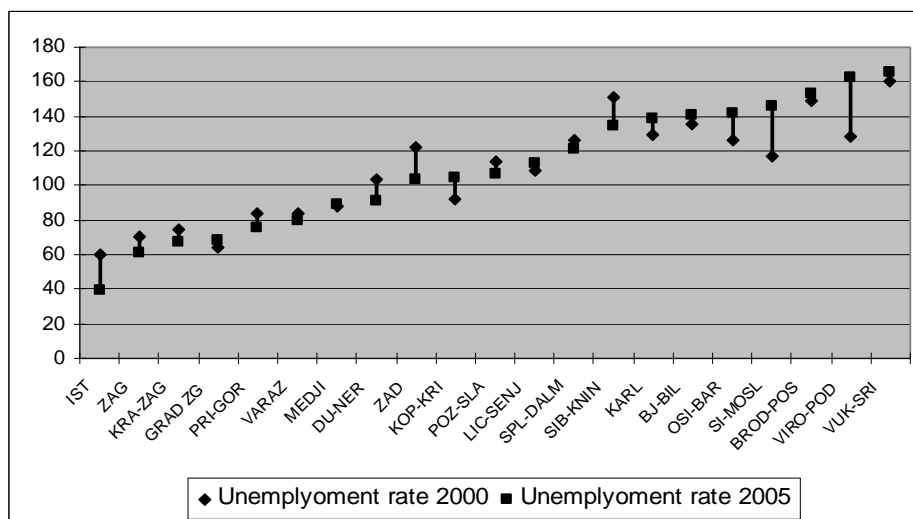
Figure 9: Relative changes in regional unemployment rates (Croatia=100)

4.3 Calculation of regional income and unemployment inequalities

Previous results suggest that an increase in regional income disparities occurred. Still, with support of quantitative results from various inequality measures, we can gain better feeling about the extent and dynamics of disparities. Table 3 summarizes the results of inequality measures. Most pronounced inequality has been recorded in terms of unemployment rate, both at the beginning and at the end of the period. In case of income indicators, highest disparities are noted according to gross wage per capita, while least ones according to average wage. Significant difference in disparities between gross average wage and gross wage per capita mean that differences in employment level had substantial impact on disparities according to gross wage per capita (and incomes per capita). It can be also noted that an increase in regional inequality took place according to all indicators. The highest increase occurred in terms of unemployment rate and the average wage, and a least one according to incomes per capita. If we compare values of coefficient of variation for wage per capita with regional GDP variations it is clear that personal income variations are smaller than the GDP ones. Logical explanation for the difference in variations is different sectoral composition of employment, as some counties have higher share of employment in public sector where average wages are higher than in the private sector. Still, this is only a speculation that should be properly investigated.

Table 3: Dynamics of regional inequalities

	Income pc 2000	Income pc 2005	Gross wage pc 2000	Gross Wage pc 2005	Gross wage per employee 2000	Gross wage per employee 2005	Unempl oyment rate 2000	Unempl oyment rate 2005
Max/Min	2,0	2,2	2,5	2,7	1,6	1,8	2,7	4,2
Weighted coefficient of variation	0,23	0,25	0,28	0,31	0,14	0,18	0,31	0,36
Gini coefficient	0,124	0,140	0,150	0,170	0,068	0,091	0,175	0,205
Theil index	0,057	0,058	0,077	0,083	0,017	0,023	0,085	0,107

Source: Author's own calculations

In next step, we turn to calculation of within-county inequalities. As already explained earlier Theil index has very useful property of perfect decomposition of total inequality into inequality within and between groups. In our case, it means that we can express total inequality as sum of between county inequality and within county inequality. Data from table 1 acknowledge that counties are rather small units in terms of size and population units and therefore one could expect that within-county inequality are very small ones. Still, results from table 4 tell different. Within-county inequalities turned out to be quite significant, most notably in case of incomes and gross wages per capita where they accounted about half of the total inequality in 2000. On the other hand, within-county contribution has fallen within all indicators meaning that overall inequality is becoming more driven by between county than within-county differences. In case of incomes per capita and gross wages per capita, a fall has occurred due to decrease of within-county inequality, while in the case of average wage it was due to lesser increase than in the case of between county contribution.

Table 4: Dynamics of between-county and within-county inequalities

	Income pc 2000	Income pc 2005	Gross wage pc 2000	Gross Wage pc 2005	Gross wage per employee 2000	Gross wage per employee 2005	Unempl oyment rate 2000	Unempl oyment rate 2005
Theil index	0,057	0,058	0,077	0,083	0,017	0,023	0,085	0,107
Between-county contribution	0,025	0,031	0,037	0,047	0,010	0,015	0,048	0,067
Within-county contribution	0,031	0,027	0,040	0,036	0,007	0,008	0,037	0,041
Share of within-county contribution	55%	47%	52%	43%	40%	35%	43%	38%

Source: Author's own calculations

Now that the relevance of within-county inequalities has been confirmed we are looking which counties have highest internal disparities, i.e. which are the most heterogeneous ones and also how do different within-county inequalities correlate.
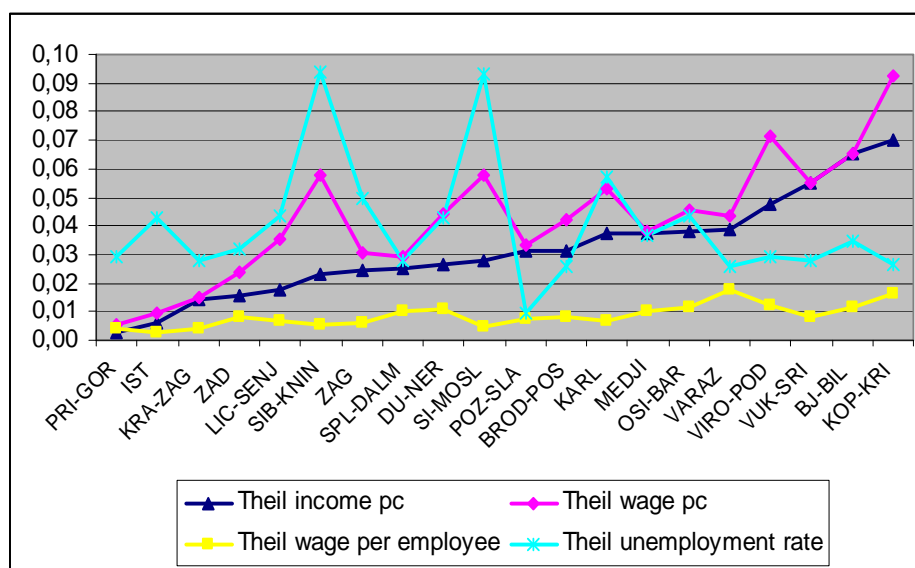
Figure 10: Within-county Theil index for various indicators in 2005

Figure 10 reveals that there exist significant differences between counties in terms of within-county disparities, but also according to indicators. Primorje-Gorski Kotar, Istria and Krapina-Zagorje County are three most homogenous counties in terms of income distribution, while Vukovar-Srijem, Bjelovar-Bilogora and Koprivnica-Križevci County are most heterogeneous ones. In terms of unemployment, highest internal disparities are in Šibenik-Knin and Sisak-Moslavina County (they could be considered almost as outliers), while Pozega-Slavonija is by far the most homogenous county. Results also indicate that distributions of Theil index values for income indicators and for unemployment rate have very weak correlation, while income indicators are obviously highly positively correlated.[16] For example, Šibenik-Knin County is faced with quite low within-county inequalities in terms of average wage and incomes per capita, and medium-level inequality in terms of wage per capita. On the other side, its unemployment inequality is the highest in Croatia. The opposite example represents Koprivnica-Križevci County with exceptionally high income per capita and wage per capita inequalities, but relatively low unemployment and wage per employee inequalities. In terms of within-county variations according to various indicators, it should be pointed that range of disparities is much smaller in case of wage per employee than for other three indicators.

Another aspect always interesting to investigate is impact of taxes on regional inequality. This is particularly important in case of Croatia as fiscal policy measures are one of key regional policy instruments at the moment. In this case available data enabled us to compare inequality according to average wage before taxation and after taxation.[17] Results are shown in table 5.

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[16] Correlation analysis was omitted due to space, but results indicated very weak correlation between unemployment disparities and income disparities for all three types of income. The only significant correlation at 10 percent was noted in case of unemployment and wage per capita disparities and it was negative (-0,35). Correlation coefficients in case of income disparities are all high and positive.

[17] Both income tax and surtax, which is a local tax, are included. Available data did not allow to separate these two taxes and to evaluate only impact of income tax. Still, the surtax should have only minor changes on results as it is calculated on the basis of the value of income tax and its highest rate is 18%).

Table 5: Pre-tax and after-tax regional inequality

	Gross wage per employee 2000	Gross wage per employee 2005	Wage after taxation per employee 2000	Wage after taxation per employee 2005
Weighted coefficient of variation	0,14	0,18	0,10	0,14
Gini coefficient	0,068	0,091	0,055	0,079
Theil index	0,017	0,023	0,010	0,016

Source: Author's own calculations

Results indicate that income taxes had positive impact on reduction of regional disparities. Values of all inequality measures are considerably lower in case of disposable wages both in 2000 and 2005. Nevertheless, income tax did not prevent inequality to rise despite a major increase in number of local units enjoying favoured tax regime occurred during in 2002.[18]

5. CONCLUSIONS

We apply various inequality measures such as coefficient of variations, Gini coefficient and Theil index to regional (county) and local units to assess the extent and dynamics of regional income and unemployment disparities in the period 2000-2005 in Croatia. We measure income inequalities on the basis of various types of personal income. After analyzing inequalities at regional level, Theil index is used to evaluate within-regional inequalities. Finally, we were able to evaluate impact of income tax on income inequalities. Our main finding is that Croatia is faced with moderate regional income (in terms of personal income) and significant unemployment disparities. Policy makers should paid particular attention to the dynamics of disparities as results have shown that there has been a considerable increase in inequality during observed period both of income and unemployment disparities. Interesting aspect of inequality analysis has been its decomposition on between-regions and within-regions component. Within-region inequality turned out to be quite significant share of total regional inequality, in case of all income and unemployment indicators. Still, its relevance is decreasing over time meaning that total inequality is becoming more driven by between-regions inequality than by within-region inequality. There exist significant differences among the counties according to within-county inequalities. While some counties are quite homogenous, others are faced with high internal disparities. Results also demonstrated very weak correlation between income and unemployment within-region inequalities, while correlation between various income types is expectedly high. Results have proved that taxes play role in reducing regional income inequalities in Croatia, but that they were unable to prevent inequalities to rise despite intensified government's support through various fiscal measures for disadvantages units. From the geographic point of view we can form several groups of counties according to income and unemployment levels. City of Zagreb represents a special case with respect to income indicators due to its high income values. In terms of unemployment Zagreb does not demonstrate such superiority, but is

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[18] During 2002 number of local units covered by various «regional» Laws and enjoying various personal income tax reliefs has been considerably expanded. Total number of inhabitants enjoying tax reliefs has been increased for around 409 thousands or 9,2% of total population.

nevertheless positioned among the most successful counties. Istria, Primorje-Gorski Kotar and Zagreb County form second group of counties with above average incomes and low unemployment rates. County of Zagreb had remarkable growth in income levels, while in case of County of Istria a considerable decrease in unemployment has occurred despite the fact that it already enjoyed lowest unemployment. Third group includes all other counties, whose relative positions in unemployment and especially income are still far from first two groups. Nevertheless, it should be noted that some counties in third group such as Zadar and Sibenik-Knin County had excellent results in reducing unemployment levels. Most endangered counties are situated in eastern part of the country whose relative position has further worsened in the observed period, both in income levels and unemployment. Comparison with EU member states according to GDP per capita data showed that Croatia belongs to group of countries with moderate income, but significant unemployment regional disparities. Once again, it is acknowledged that unemployment currently represents greatest "regional problem" and that policy makers will have to increase efforts in order to make any substantial impact on reduction of regional disparities

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ENERGY VS. MATERIAL: USES OF WOOD BIOMASS ECONOMIC IMPACTS OF ALTERNATIVE SCENARIOS

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Key words: *Energy, Economic Impacts, Environment, Wood Biomass, General Equilibrium/Simulation Modeling*

1. INTRODUCTION AND MOTIVATION

The last two years were highlighted by the most notable wood price increases in Austria since the early 1980ties (Schwarzbauer, 2005a; STATISTICS AUSTRIA, 2006a; figure 1). This situation was a consequence of a lack in wood supply as well as an ever-increasing demand.
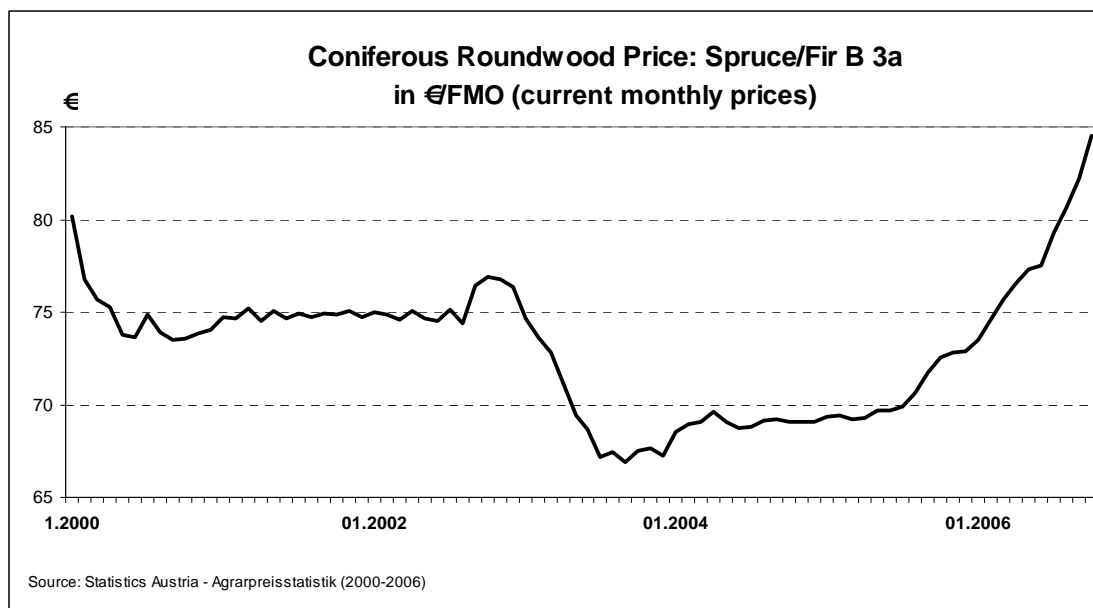
Figure 1: Coniferous Round wood Price

On the supply side the shortage was triggered by a long and unusual strong winter in 2005/06 and increasing saw milling capacities in Bavaria and other neighbouring countries. The extreme climatic conditions between January and February 2006 made timber harvesting difficult to impossible especially in the mountainous areas which are rich in forest cover. New sawmills in Bavaria effectively reduced the net imports of round wood from Bavaria, but also from Czech Republic to Austria.

Anyhow, the base of the temporary wood shortage on the Austrian markets originated from a constantly increasing wood demand since the 1970ties (Schwarzbauer, 2005a). Apart from growing national wood processing industries it is the promotion of energy from renewable resources on a national and European scale which affects the availability of wood on the Austrian market. Because of these increasing demands a constant and severe shortage of wood supply can be expected in the near future (UN-ECE/FAO, 2005; Schwarzbauer, 2005b). This development concerns the saw milling, board and paper industry as well as the use of fuel wood for the production of electrical energy or the traditional heating of houses.

Especially the pulp, paper and board industries are heavily depending on the constant supply of cheap pulpwood from forestry and wood chips from saw milling. With a decreasing price differential between fuel wood and the wood raw materials for these industries, fast changes in the supply chain must be expected. Forest owners and sawmills will be able to switchover their supply from industries using wood as a material to such producing energy, solely depending on the achievable price. In consequence of these developments the national pulp and paper industry faces two major disadvantages by the promotion of fuel wood. First the reduction of their production inputs and secondly the refusal of the energy produced within the pulping process as energy from renewable resources.

The competitiveness of wood for the production of energy is secured by the political will to reduce the emission of carbon dioxide as for example in accordance to the Kyoto protocol. In contrast to energy from fossil sources wood has a neutral carbon dioxide balance. The so-called "Ökostromgesetz" guarantees higher prices for electricity produced from renewable resources in contrast to such produced by conventional processes. These higher prices allow the operators of biomass power plants to pay competitive prices for wood. As the electricity produced within the pulping process is exempted from these guaranteed prices the wood supply markets are distorted by this law. The favourable conditions created by the "Ökostromgesetz" promoted the construction of many biomass power plants. Between 2001 and 2006 the amount of biomass fuel used in those plants quadrupled (Nemestothy, 2006). Because of numerous new plants in construction a further increase in demand must be expected (Nemestothy, 2006).

Parallel to biomass power plants an increasing number of private households changed their central-heating boilers from oil-driven to wood pellets using boilers (Ortner, 2006). This boosted the demand for wood pellets in several European countries. So far the producer of

such pellets used wood chips from sawmills as raw materials. For their customers a supply guarantee is essential especial in winter times. Consequently pellet producers are willing to pay high raw material prices to ensure constant production and delivery during these periods. Less surprisingly the prices for wood pellets increased in 2006 from 175 to 265 Euro per metric ton (Rakos, 2006). In consequence of the price levels reached recently, the producers of such pellets may be able to compete successfully for wood chips from sawmills as well as for pulpwood.

A rough forecast on the total demand of wood for energy production has been made by the Austrian Energy Agency. This forecast expects the annual demand to increase from 14 million cubic meters in 2004 to over 20 million cubic meters by 2008 (Nemestothy, 2006). The demand of the pulping and board industries was estimated by Nemestothy (2006) to be just above further 10 million cubic meters (figure 2).

Annual Demand of Wood in Pulp- and Board Industries (black) **and for Energetic Purposes** (grey) **between 2000 and 2007**
(*2006 and *2007 are estimates)

Source: Nemestothy (2006)
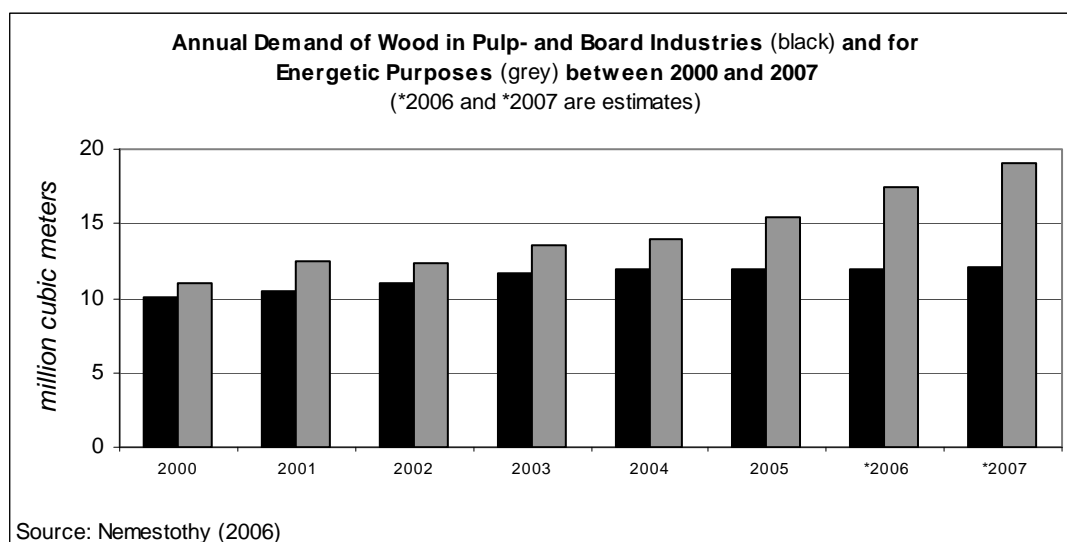
Figure 2:Annual demand of wood in pulp- and board industries (black bars) and for energetic purposes (grey bars) in the years 2000 to 2007.

The actual annual wood increment in Austrian forests was calculated to be approximately at 31.3 million cubic meters (over bark) (BFW, 2006). In context to these figures it is necessary to keep in mind that the annual wood increment is by no means comparable to the amount of wood supplied to the market. Due to various factors much of the calculated increment is not used on a regular basis. In some cases for example the harvesting may be economic inefficient to technical impossible because of steep terrain, in other cases it may be a quite hard to reconstruct decision of the forest owner not to harvest the increment of his forest.

The annual amount of wood harvested was just at 18.8 million cubic meters (over bark) (BFW, 2006). Again it is necessary to keep in mind that this amount is not comparable to the final supply of wood to the market. As significant harvesting losses must be expected and bark must be deduced an even lower amount of wood will reach the markets. Consequently an increasing amount of wood must be imported to Austria to fill the existing gap.

Therefore the dispersal of wood resources concerns the traditional wood processing industries, the energy sector, political interests and private households. Consequently today and future developments in wood supply and demand must be understood as a topic of major national interest. This project wants to deal with the question of what the consequences of the foreseeable changes may be. Its aims are to calculate and compare the macroeconomic costs and benefits of possible wood market developments in the near future.

The main goal of this project is to address the links, market effects and macro-economic effects of alternative uses of wood – for energy purposes and for material purposes.

2. GENERAL ENVIRONMENT AND MODELLING SYSTEM

2.1. Macroeconomic and forest sector-specific quantitative models

The modelling system in this project consists of the combination of two different models, a quantitative forest-sector specific and a quantitative macroeconomic model.

The modelling system therefore addresses the complex system interaction between macroeconomics, the forest sector and the environment. The main aim of the combination is the quantification of demand, supply, trade and prices of wood products (including wood for energy) and their macroeconomic impacts.

One of the main tasks in this project will be to identify the chain of significant cause-effect links from policy (e.g. energy policy promoting renewable energy) to the economic performance, the sustainability of the forest sector and the macroeconomy as a whole. The interaction of the models in the system is shown in the following figure:
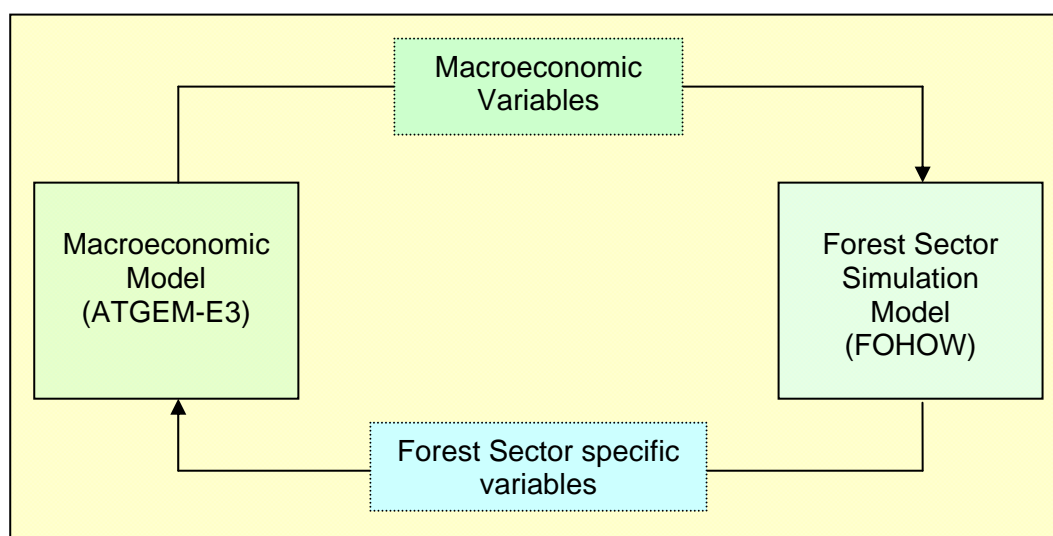
Figure 3: Interaction of models

As can be observed from the figure above, the output generated by the forest sector simulation model, which will be used as an input for the macroeconomic model, will be the development of forest sector specific variables. In a second step these variables will be fed into the macroeconomic model, which will generate macroeconomic effects. These effects will then be used as an input for the forest sector specific model and so on.

2.1.1. Scenario Evaluation

The investigation is based on the scenarios generated by the forest sector models and interactively treated by the CGE model. The iterative procedure will assure convergence of the main variables for each scenario.

2.2. Models

2.2.1. ATGEM-E3

In the Austrian as well as European context several ways to deal with impacts of energy policies as well as energy-related developments on the macroeconomy have been employed (compare e.g. GEM-E3, Bodenhöfer et al. (2004), Indinger et al. (2006)). For the purpose of this project we can in principle restrict our macroeconomic analysis to two basic methodologies:

1. Input-Output (I-O) Analysis

2. CGE - modelling

Whereas I-O analysis might be a justifiable simplification in the short run and relatively easily implementable, it has serious drawbacks for medium to long term analyses. Firstly, it concentrates on the production sectors and on the intermediate goods needed for them, second, its assumption on the behaviour of economic agents is on a fixed, static ad-hoc basis rather than the result of dynamically adjusting behaviour, such as in CGE models. In addition, the I-O analysis assumes that (relative) prices remain constant, which makes it impossible to model substitution effects between consumption goods as well as production factors, which is likely to occur in this context on a medium to long term basis.

2.2.1.1. The Basic Concept of the Model

Because of the drawbacks mentioned above, the **ATGEM-E3** (**A**ustrian **G**eneral **E**quilibrium **M**odel for **E**nergy-**E**conomy-**E**nvironment interactions) follows a computable general equilibrium approach (CGE) to address the underlying issue.

Goods Market Equilibrium

Imports

Exports

Producers
Maximising Profits

Consumers
Maximising Utility

Labour Market Equilibrium

Capital
Rate of

Investment

Investment
Financing

Revenues

Investment

ALLOCATION

Producers

Consumers

Government

ROW

Income Flows and Transfers

Surplus/ Deficit of Agents

Environment
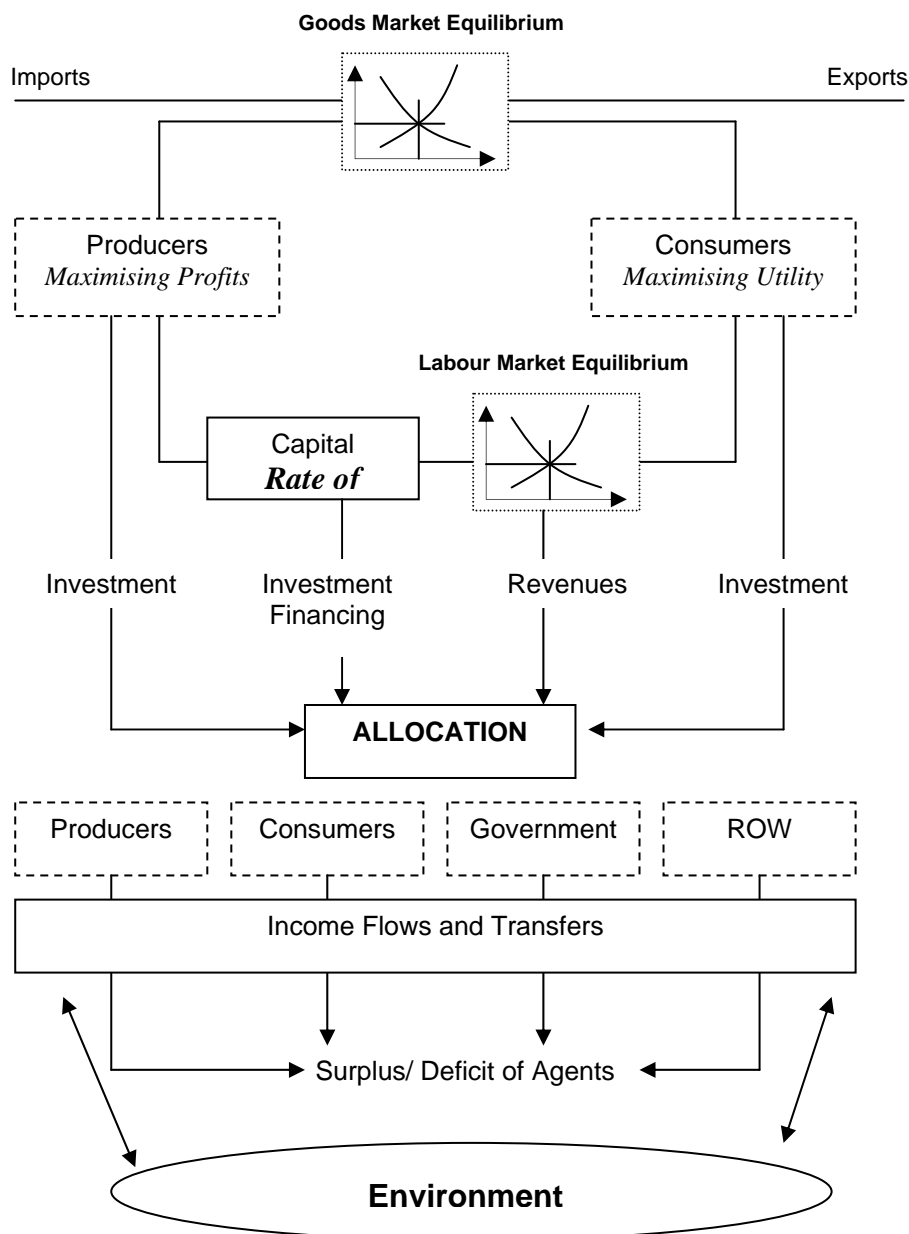
Figure 4: Structure of ATGEM-E3

The model considers 4 economic agents: households, firms, government and the foreign sector. There are 2 primary production factors labour and capital. The model will further distinguish 18 productive branches:

The model proposed for the analysis draws on the work of the ZEW in Mannheim and their already developed GEM-E3 model[1]. In short, the design of the model follows four main guidelines:

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[1] A detailed description of the GEM-E3 model can be found at: http://www.gem-e3.net/index.htm , 11th December 2006.

1. Model design around a basic general equilibrium core in a modular way so that different modelling options, market regimes and closure rules are supported by the same model specification.

2. Fully flexible (endogenous) coefficients in production and in consumer's demand.

3. Calibration to a base year data set, incorporating detailed Social Accounting Matrices as statistically observed.

4. Dynamic mechanisms, through the accumulation of capital stock.

The GEM-E3 model starts from the same basic structure as the standard World Bank models programmed in GAMS. Following the tradition of these models, GEM-E3 is built on the basis of a Social Accounting Matrix and explicitly formulates demand and supply equilibrium. Technical coefficients in production and demand are flexible in the sense that producers can alternate the mix of production not only regarding the primary production factors but also the intermediate goods. Production is modelled through KLEM (capital, labour, energy and materials) production functions involving many factors (all intermediate products and two primary factors -capital and labour). At the same time consumers can also endogenously decide the structure of their demand for goods and services. Their consumption mix is decided through a flexible expenditure system involving durable and non-durable goods. The specification of production and consumption follows the generalised Leontieff type of models as initiated in the work of D. Jorgenson.

The model is not limited to comparative static evaluation of policies, instead it is dynamic in the sense that projections change over time. Its properties are mainly manifested through stock-flow relationships, technical progress, capital accumulation and agents' (backward looking) expectations.

The ATGEM-E3 model is calibrated to a base year data set that comprises a full Social Accounting Matrices for Austria that is built by combining Input-Output tables (as published by EUROSTAT) with national accounts data. Bilateral trade flows are also calibrated for each sector represented in the model, taking into account trade margins and transport costs. Consumption and investment is built around transition matrices linking consumption by purpose to demand for goods and investment by origin to investment by destination. The initial starting point of the model therefore, includes a very detailed treatment of taxation and trade.

Total demand (final and intermediate) in each country is optimally allocated between domestic and imported goods, under the hypothesis that these are considered as imperfect substitutes (so-called "Armington" assumption). To this respect the model follows the methodology of the models that are developed to study tax policy and international trade.

ATGEM-E3 considers explicitly market clearing mechanisms, and related price formation, in the economy, energy and environment markets. Following a micro-economic approach, it formulates the supply or demand behaviour of the economic agents regarding production, consumption, investment, employment and allocation of their financial assets. The model computes the prices as a result of supply and demand interactions in the markets. Through its flexible formulation, it in principle enables the representation of hybrid or regulated situations, as well as perfect and imperfect competition. The model can incorporate sectors in which only a limited number of firms operate under oligopoly assumptions. Models with imperfect competition are a rather recent addition to the literature of CGE models. They are usually based on the concept of product varieties as this derived from the theory of industrial organisation and the concept of economies of scale that provided an elegant micro-economic framework for including non-linearities in production and consumption. Such models have been developed mainly in Europe to study the impact of European unification. Similar techniques have been utilised to study the labour market imperfections. The concept of product varieties has also been utilised to endogenise technical progress in a number of theoretical models. Firms in these sectors operate under non-constant returns to scale involving a fixed cost element, endogenously determine their price/cost mark-ups based on price (so-called "Nash-Bertrand" assumption) or quantity competition (so-called "Nash-Cournot" assumption). Firms in these sectors can make profits/losses that will alter the concentration and firm size in the sector. Demand then is also firm-specific in the sense that changes in product varieties directly affect the utility of the consumers.

Institutional regimes, that affect agent behaviour and market clearing, are explicitly represented, including public finance, taxation and social policy. All common policy instruments affecting economy, energy and environment are included. Model closure options mainly investments/savings equality are varied according to capital or labour mobility across sectors/countries, external sector possibility of adjustment.

The model is general and complete, in the sense that it includes all agents and markets that affect the Austrian economic equilibrium. The model attempts also to represent goods that are external to the economy as for example damages to the environment.

The internalisation of environmental externalities is conveyed either through taxation or global system constraints, the shadow costs of which affect the decision of the economic agents. ATGEM-E3 links global constraints to environmental emissions, the change in consumption or production patterns, the external costs/benefits, taxation, the pollution abatement investments and the pollution permits. It evaluates the impact of policy changes on the environment by calculating the change in atmospheric emissions and damages and determines costs and benefits through an equivalent variation measurement of global welfare (inclusive environmental impact). The recent awareness about the greenhouse problem motivated the emergence of several empirical models for the analysis of economy-

environment interactions. For example, the work of Jorgenson and Wilcoxen (1990), Proost and Van Regemorter (1992), Nordhaus (1994) and Manne et al. (1997) have focused on the economic conditions for obtaining CO_2 reduction by means of a carbon-related tax. Such a policy issue needs to be addressed by ensuring consistent representation of the interactions between the economy, the energy system and the emissions of CO_2.

A counterfactual simulation is characterised through its impact on consumer's welfare or through the equivalent variation of his welfare function. The equivalent variation can be, under reasonable assumptions, directly mapped to some of the endogenous variables of the model such as consumption, employment and price levels. The sign of the change of the equivalent variation in the Austrian case gives then a measure of the policy's impact and in the relations Austria - EU it indicates the burden sharing implications.

2.2.1.2. Solution Algorithm

The model is formulated as a simultaneous system of equations with an equal number of variables. The system is solved for each year following a time-forward path. The model uses the GAMS software and is written as a mixed non-linear complementarity problem solved by using the PATH algorithm.

Further information on the model will be given in appendix A.

2.2.2. FOHOW

In the simulation model of the Austrian forest sector (in the following called "FOHOW"; Forst- und Holzwirtschaft) the forest sector is modelled as a whole (system), from forest growth to the use of paper (see figure 5). It does not intend to deliver exact forecasts but tries to analyse longer-term effects of events ("what-if" questions). In this project the "what-if" questions are related to the increased demand regarding wood for energy.

FOHOW is a simulation model using the System-Dynamics (SD) language. The current version of FOHOW consists of approx. 1500 equations, of which about 250 are levels, 250 rates, 400 auxiliaries and the rest table functions and constants (cp. Schwarzbauer, 1993a).

Austria

REST of the WORLD
Trade Partners

GENERAL ECONOMY

General Demand factors
(GDP, Population)

General Demand factors

Domestic DEMAND for: Wood Products (Sawnwood, Panels, Paper & Paperbd.) and Fuelwood

IMPORT DEMAND for: Austrian Wood Products

Produkt Markets

Depending on Product

FOREST INDUSTRY

Domestic SUPPLY of: Wood Products (Sawnwood, Panels, Paper & Paperbd.)

EXPORT SUPPLY of: Wood Products (ROW)

Domestic DEMAND for: Roundwood (Sawlogs, Pulpwood), Sawmill Residues & Waste Paper

Sawmill Res., Waste

Fuelwood

IMPORT DEMAND for: Austrian Roundwood

Markets of Roundwood, Sawmill Res. & Waste Paper

FORESTRY

Depending on Product

Domestic SUPPLY of: Roundwood (Sawlogs, Pulpwood), Sawmill Residues & Waste Paper

EXPORT SUPPLY of: Roundwood, Sawmill Residues & Waste Paper (ROW)

FOREST RESOURCES

Domestic RESOURCES (Forest Area, Growing Stock, NAI) by ownership categories

RESOURCES (Growing Stock, NAI) (ROW)

Figure 5: General Structure of FOHOW

2.2.2.1. The Basic Concept of the Model – Balancing Supply, Demand and Price

The simulation model is based on the general market equilibrium theory[2] of demand and supply. Unlike optimisation models such as the ATGEM-E3 and GFPM (see Tromborg et al., 2000), which calculate price and quantity simultaneously (usually by maximising producer- and consumer surplus), the used SD simulation does not allow simultaneous equations. Therefore the balance between supply, demand and price cannot be solved simultaneously.

The balance is determined in the model with the lagged product price in the following way (see figure 6). Let S_1, S_2, D_1, D_2 be the respective supply and demand curves for a product (e.g. coniferous sawnwood) in simulation period 1 and 2. To simplify the explanation of the principle let us assume a domestic market with no trade, the curves representing domestic supply and demand. In period 2 both curves are shifted to the right, as a result of increased capacity (S) and GDP (D). The equilibrium price for period 1 is P_1*, for period 2 P_2*, the respective equilibrium quantities are Q_1* and Q_2*. Let P_0^m (in the following the "m" stands for prices and quantities as calculated in the model) be the price of the previous period (lagged price) as calculated by the model (or a start value at the beginning of the model run)[3]. P_0^m results in demand quantity D_1^m and supply quantity S_1^m in period 1. In period 1 supply exceeds demand ($S_1^m > D_1^m$). Actual production (= consumption) Q_1^m in period 1 is calculated in the model as the <u>average</u> of S_1^m and D_1^m, halfway between both. In figure 6 Q_1^m is larger than the equilibrium quantity Q_1*. Because of surplus supply, the price in period 1 drops from P_0^m (previous period) to P_1^m (the mechanism by which P_0^m is "corrected" - in this case reduced - is described below; see figure 7). P_1^m is not identical with (actually lower than) the equilibrium price P_1*. Now P_1^m is functioning as the lagged price for the next period 2, which leads to supply quantity S_2^m and demand quantity D_2^m. This time demand D_2^m is larger than supply S_2^m ($D_2^m > S_2^m$) and the model calculates a price increase from P_1^m to P_2^m in period 2. Again, neither P_2^m nor Q_2^m are equal to the equilibrium, P_2^m is higher than P_2*, Q_2^m is lower than Q_2*. P_2^m is now functioning as the lagged price for the next period 3, and so on. <u>Over time, both the calculated prices and the quantities oscillate within a certain magnitude around the equilibrium</u>, the scope being determined by the slopes and shifts of the demand and supply curves[4].

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[2]   The forest sector model used is in fact based on the <u>partial</u> equilibrium concept, because only one economic sector, the forest sector, is treated endogenously. The rest of the economy is exogenous (see e.g. Kallio et al., 1987).

[3]   For illustration purposes P_0^m is significantly deviating from the equilibrium price P1*.

[4]   Oscillation around the equilibrium point as presented in this model reflects actual market interactions more realistically than an exact equilibrium.

Price

D_1 D_2 S_1 S_2

1/2 1/2

P_0^m

P_2^m

P_2^*

P_1^*

S_1 S_2 D_1 D_2

P_1^m

D_1^m Q_1^m S_1^m Q_2^* D_2^m Quantity

Q_1^* S_2^m Q_2^m
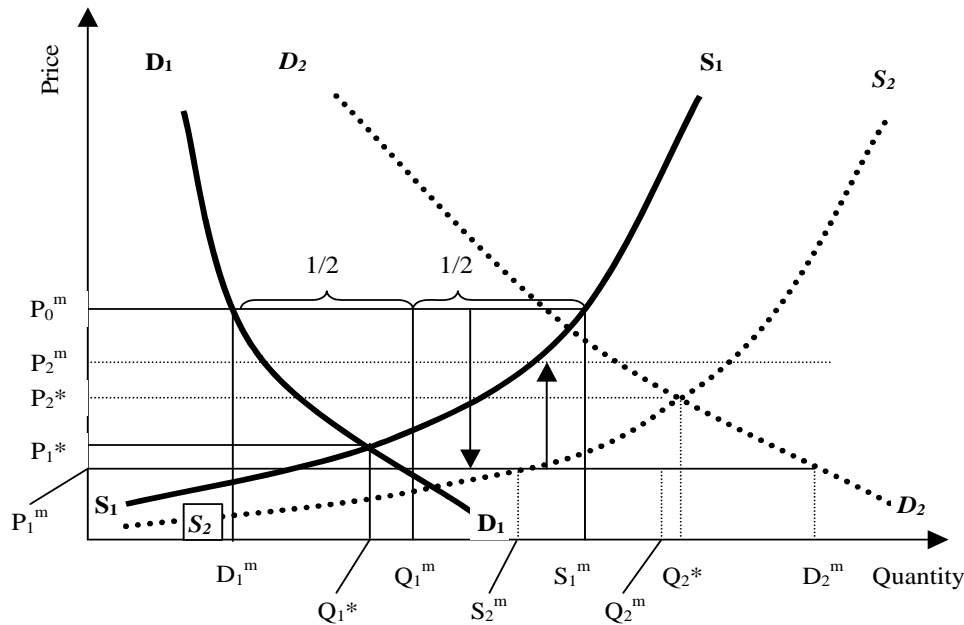
Figure 6: Oscillation of price and quantity around the equilibrium as calculated by the model

According to SD-terminology the price equations are formulated as "level" equations. That means the prices of forest products in any period are calculated from the prices of the previous period by "correcting" them by a factor based on the relationship between supply and demand in the current period. Any lagged price other than the equilibrium price will lead either to a surplus supply or a surplus demand. The mechanism to determine the "correction" factor for the lagged price assumes that the relationship between supply and demand can be transferred to the price. A surplus demand leads to a price increase, a surplus supply to a price decrease. If e.g. supply exceeds demand by 10%, actual production (= consumption) is calculated as demand quantity + half the difference between supply and demand (+ 5%). At the same time the price decreases by -5%. Figure 7 shows the rationale of this mechanism, with the limitation that it is only exact in case both curves are linear and have a slope of +/- 1 (+/- 45°). Then the percentage of over-/under supply can directly be transferred to the price level. Tests of the influence of the "correction" factor (e.g. taking the full difference rather than just half the difference between supply and demand) have shown that the model reacts very moderately to modifications of the "correction" factor. Whatever reasonable "correction" factor is used as a proxy – the model does not allow the calculated price to deviate much from the equilibrium price.
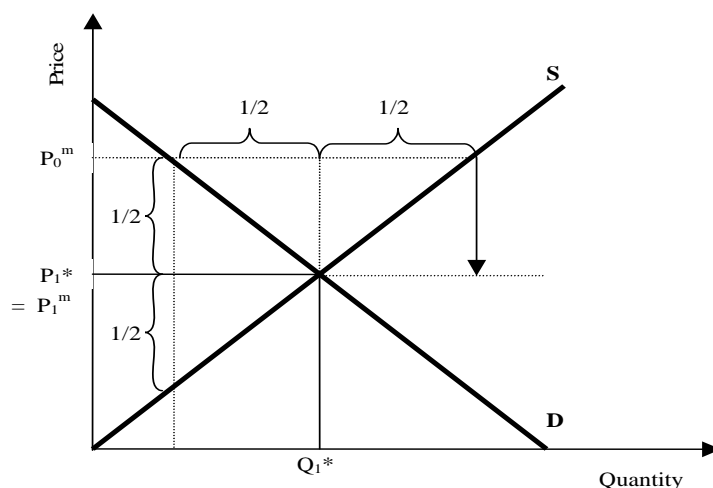
Figure 7: Concept for the mechanism for calculating the equilibrium price by using the relationship between supply and demand – as shown by linear supply and demand curves with a slope of +/- 1.

2.2.3. Modules, Regions and Product Aggregation

FOHOW consists of four types of modules:

(1) General economy*:* includes only exogenous variables (GDP, population).

(2) Forest industry and forest product markets: includes supply, demand, prices and trade for each semi-finished product:

(3) Forestry: includes timber supply from three ownership categories: small private forest owners (< 200 ha), larger private forest owners (>= 200 ha) and Austrian Federal Forests. Timber markets are at the border between (2) and (3).

(4) Forest resources: includes forest area, growing stock and increment each broken into coniferous and non-coniferous forests, ownership categories and two age-classes.

FOHOW covers only one region with trade relations to the rest of the world: Austria is the centre of interest, a fictive "rest-of-the-world" (ROW) represents the aggregation of Austrian trade partners (imports and exports) in forest products.

The following product groups are included in the model: coniferous logs, non-coniferous logs, coniferous pulpwood, non-coniferous pulpwood, sawmill residues, fuelwood, coniferous sawnwood, non-coniferous sawnwood, particle- and fibreboard, pulp, waste paper, paper and paperboard.

Further information on the model will be given in appendix B.

2.2.4. Why the FOHOW model is well suited for this project

The main goal of this project is to address the links, market effects and macro-economic effects of alternative uses of wood – for energy purposes and for material purposes. FOHOW has the ability to address these effects because it covers the entire forest based sector, including the use of wood as fuel. Increased demand of fuel wood (either by market forces or political will) will definitely change the patterns of wood flows because of price changes between the various applications/products, including energy use. At the moment there is no other model available for this sector which covers the entire wood flow, from biological wood growth (in the forest), to timber supply, the various – competing – wood use sectors and the demand of wood for these various purposes.

In technical terms the increased demand of wood for energy will be simulated in the model by shifting the demand curves for fuel wood to the right. The shift mainly represents political action to increase the use of wood for energy – as one part of the policy regarding the utilisation of renewable energy.

Among other questions, the model has already been used to address the following topics:

- Impact of forest decline ("Waldsterben") (Schwarzbauer, 1991)
- Impact of the Austrian EU-membership on the forest sector (Schwarzbauer, 1989)
- Impact of paper mills closing their Austrian pulp production (Bauer, 1993)
- Impact of increased paper recycling on forest products markets (Allinger et al., 2000)
- Impact of forest certification on forest products markets (Schwarzbauer and Rametsteiner, 2001)

3. CONTRIBUTIONS

3.1. General Contributions

In our view the project will contribute to the existing literature in five ways:

1. Development of an integrated and unique system of energy-oriented macroeconomic and forest sector models aimed at investigating the macroeconomic effects of forest sector-specific alternative energy scenarios

2. Technical assessment of the raw material reduction alternatives concerning the wood processing industries and the connected losses in added values and further aspects of national economic interests.

3. Development of alternative scenarios regarding prices, supply and demand of wood products under different assumptions on policies promoting renewable energy, e.g. use of wood, energy crops, etc.

4. Analysis of the possible macroeconomic effects of promoting the multiple use of wood – first as a material (e.g. construction, paper) thereafter the material as fuel, e.g. the energy use of demolition wood or paper after multiple recycling.

5. Comparative analysis of the national economic costs and benefits achieved from the substitution of energy produced from fossil recourses by such from renewable, especially biomass resources.

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MEASURING THE OPERATIONAL RISK – A CHALLENGE POSED BY THE EUROPEAN DIRECTIVES FOR ADEQUATING THE CAPITAL IN THE ROMANIAN BANKING SYSTEM

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Key words: *Operational, Banking, Risk,*
Management, Challenges

1. THE PRESENT SITUATION IN THE ROMANIAN BANKING SYSTEM – QUANTITATIVE AND STRUCTURAL ASPECTS

Before 1990, Romania doesn't profit by a banking system in general acceptation term. It was only four banks controlled by the communist state exclusively. The banking system reorganization process began at the end of 1990 when a banking society (the Romanian Commercial Bank), newly created, has taken over the customers operations that had previously been performed by the National Bank of Romania. Simultaneously, began the creation process of some private capital banking institutions and the integration in the internal banking activity of foreign banks branches, the number of banks almost tripled during 1991/1998. The financial cost of the reorganization in the banking sector, taken on by the state during 1990 until present reached over 10% of the GDP.

In the first half of 2007, 40 credit institutions functioning in Romania, from which 37 banking societies (of which 6 branches of foreign banks), 2 savings banks for housing and one is credit cooperative organisation. The Romanian banking system is almost entirely private, passed in private property. The weight of the assets owned by private or majority private capital banks in the total assets of the Romanian banking system was of 94 %. First five banks have 57.8% from total assets of Romanian banking system. Banking system have total assets 43 billion RON (national currency) (about 54% of GDP) and 61% of bank assets are held by the top-five banks.

2. GENERAL BANKING OPERATIONAL RISK MANAGEMENT FRAMEWORK

2.1. Conceptual introduction regarding the operational banking risk, as a significant banking risk, according to the Basel II Agreement

The first tendency for the one who is preoccupied with measuring the operational risk within an entity is to declare that this type of risk is a non-measurable risk. Such an attitude is based on the risk's essence itself. Generally, the risk is associated with uncertainty. The risk is often identified with uncertainty, and uncertainty affects any field of activity. The banking field is more affected by uncertainty than other economic fields. Measuring the risk would mean measuring the uncertainty in this case.

Recent approaches of banking risks are based on defining these risks as being rather effects of exposure in an uncertain situation. With such an acceptation of the banking risks, measuring them becomes possible using advanced statistics methods of valuation, which establish the probability of an unfavourable situation's appearance.

Contemporary banks don't aim at eliminating the risks (an impossible approach in the present banking field), but they concentrate on learning the potential danger and the level of impact for the risks affecting their activity. In this way they create the premises for an efficient management of the banking risks by the possibility of forecasting the risk event's happening in a certain measure and of taking in time decisions necessary for reducing the risk of eventual unfavourable consequences.

Between the significant banking risks, the operational risk detaches due to the complex character of the events generating banking operational risks and due to the difficulties of measurement. Generally, managing the banking risks means identifying, measuring, supervising and controlling. Speaking of the banking operational risk, these activities are difficult to implement and imply the banks' efforts in drawing up methods and mechanisms of reducing the negative effect of the events generating operational risk.

The study is aimed to describe the banking operational risk as perceived in present and as perceived in the perspective projects for the Romanian active banks. First, we questioned the necessity of measuring the banking operational risk, trying to find out to what extent banks need to know the quantitative aspects of this type of risk. The arguments for the necessity of measuring this risk were essential. There wasn't only about some regulatory restrictions, which impose the measurement of this risk for banks, but also about the objective and real necessity of the banks to know the losses they could register out of the events generating operational risk. Once established the necessity for measuring the banking operational risk, we approached the real methods that banks can use in measuring this type of risk. Due to the operational risk's character of being produced or not in a future period of time, measuring it means in fact an activity of forecasting the potential losses that the events generating operational risk can bring for a banking society.

As the events generating operational risk can affect the bank's activity, we internationally notice the presence of a sort of compromising solution in measuring this type of risk. It is about the association between this risk and the minimum capital necessary for the banks, action through which banks must allocate extra capital for this type of risk. In the present there are known three measurement methodologies, being in fact methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk

sensitivity: the Basic Indicator Approach, the Standardized Approach and Advanced Measurement Approaches. We consider that the first two approaches are not properly named methodologies for measuring the banks' exposure at operational risk, they being rather „security screens" (more or less inspired) established by the Basel II Capital Agreement in order to determine the capital requirement for operational risk. Only the third methodology permits the measurement of potential losses registered by a banking society out of events generating operational risk. We made a comparative study of the three methodologies mentioned for measuring the operational risk for the Romanian active banks.

The banking operational risk issue has been the object of several debates in the last years, the specialized literature offering multiple studies and analysis on this subject. The banking operational risk is given a great importance also because it is considered a category of significant banking risk, according to the Basel II Agreement. The banking operational risk has been a preoccupation for the banking and academic fields before the Basel II Agreement, too. The banks have become aware of the operational risk's importance, but they have differently reacted according to their consent of investment in monitoring this risk. In the most times, banks considered the banking operational risk an unknown component of their costs. The reason is the insufficient preoccupation for managing this risk, but also the substantial costs for developing the databases with events generating operational risk.

We can say that adopting the Basel II Agreement brought a revolution in the operational risk field. This category of risk is taken into account for the first time in an international agreement for determining the banks' capital requirements.

The Basel II Capital Agreement, the name of the International Convergence of Capital Measurement and Capital Standards - a Revised Framework, has been finalized by the Basel Committee and has been signed in November 2005. The Basel II Agreement doesn't have an imperative character for any national state; it is just a guiding frame for adopting the specific national legislations. As for the countries part of the European Union, the Basel II settlements had been the base for configuring the European Directive adopted under the name of *Capital Requirements Directive* CRD by the Council and European Parliament in June 2006. The directive represents in fact the combination of two directives: Directive 2006/48/EC regarding the building and activity of the credit institutions (revised) and the Directive 2006/49/EC regarding the capital adequacy of the investments societies and credit institutions (revised). European Union's member states must transpose the settlements of the Directive CDR and the credit institutions have to apply them starting with the beginning of 2007. Romania's adhesion to the European Union from January the 1^{st} 2007 brings the obligation to enforce the communitarian regulations in our banking system, too. But, credit institutions can choose between the present settlements of the first Basel I Agreement and the first or average approaches of the new Basel II Agreement. The most sophisticated approaches of the new agreement (advanced approach IRB for the credit risk and AMA approach for the operational risk) will be available from the year 2008, when all credit institutions from the European Union will have to apply the Basel II Agreement.

The New Agreement defines the two concepts in part V, point 644 like this: operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputation risk. Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

In Romania, the minimal structure of the significant banking risks is presented by the National Romanian Bank's Regulation no.17/2003 regarding the organization and internal control of the credit institutions' activity and management of the significant risks, the organization and development of the internal audit in the credit institutions, published in the Official Monitor of Romania no.47/2004. Regarding the operational risk, it is defined as the national settlement as the risk of getting losses or not realizing the estimated profits, being determined by internal factors (the inappropriate development of some internal activities, the existence of inadequate people or systems) or external factors (economic conditions, changes in the banking environment, technological progresses). The legal risk is a component of the operational risk, arising due to not applying or defectively applying the legal or contractual regulations and negatively influences the operations or the credit institutions' situation.

National legislation specific in the area of managing the banking operational risk is not definitive in Romania. In December 2006 are being prepared the Regulation and Romanian National Bank Norm regarding the operational risk. These were public debated in June 2006, being published on the Romanian National Bank's website, before making the final steps in the central bank, so that the interested persons can know their content and can formulate proposals and observations.

The actual stage of development in the Romanian banking system reveals a banking system that needs to follow a complex transformation process for the premises of the Basel II Agreement's efficient application to be guaranteed. The first element to be configured is the specific national legislation. The National Romanian Bank is given an important part in this standardizing measure. The National Romanian Bank's activities along 2006 show that the central bank has learnt its lessons, has understood that in the Basel II "world" the rules of the game are complicated and has configured an action plan to face the Basel II challenges. The central bank has made public its preoccupations in this domain and has also established a calendar of implementing the suggested actions. The National Romanian Bank has set up a Directive Committee in the Basel II domain, including the Public Finance Ministry, the National Committee for Exchange Securities and the Romanian Banks Association – institutions with impact on the credit institutions' activity. This Committee has the informational support of the European Committee's experts in this domain, who were consulted in facilitating the preparations.

2.2. Managing the banking operational risk

Nowadays, in Romania all the active banking societies must apply the following procedures for managing the operational risk[1]: Valuation procedures; Monitoring procedures and Risk decreasing procedures, either in the internal field, by correcting in time the determined errors and by introducing adequate technologies for processing and insuring the information security, or by transferring the risk to other domains of activity (for example insurances against some events).

At a detailed study, these three types of procedures enforce the banks to develop activities, which permit them the following:
1. For the **valuation procedures**, to identify, notify and quantify the banking operational risks they are confronted with. Identifying an event generating banking operational risk means establishing the moment (data) when the effective banking unit in the territory or the central

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[1] Article 81 of the National Romanian Bank's Regulation no.17/2003.

administration of the bank takes knowledge of this event's happening for the first time, also including the existence of a real or potential compensation demand appeared in the bank. In this way, the banking society must take into consideration at least the following types of events generating the operational risk:

a) The **internal fraud**, identified in the shape of losses generated by acts as those committed with intention of fraud, fraudulent appropriation of goods (in a legal meaning) or infringement of regulations, legislation or politics of the credit institution, in which at least an inner person is implied; events as discrimination or infringement of diversity principles (for example bad-faith reporting the positions, theft, concluding of transactions by employees on their own).

b) The **external fraud**, identified in the shape of losses generated by acts as those committed with intention of fraud, fraudulent appropriation of goods or infringement of legislation, committed by a third party (for example robbery, fake, breaking informatics systems' codes).

c) Conditions for hiring the personnel and the safety of working place, identified in the shape of losses generated by actions contrary to the legislation and hiring, health and working safety regulations, by payment of compensations for body prejudices or by discrimination or infringement of diversity principles (for example compulsory demands of the personnel, not respecting the labour protection regulations, promoting discriminatory practices).

d) Deficient practices regarding the customers, products and activities – business practices, identified in the shape of losses generated by the not intentioned infringement or negligence of professional duties towards the customers (including those regarding trust or security and those regarding services' adequacy) or generated by the nature or characteristics of a product (for example inadequately using the confidential information about the customers, money laundry, selling unauthorized products, wrong use of products and services regarding the electronic banking system by the clients).

e) Endangering the tangible assets, identified in the shape of losses generated by destruction or deterioration of tangible assets as an effect of natural disasters or other events (for example terrorism or vandalism, acts fires and earthquakes).

f) Interrupting the activity and defective functioning of systems, identified in the shape of losses generated by interrupting the activity or by inadequate functioning of systems (for example defections of hardware and software components, telecommunication troubles, defective projection, implementation and maintenance of the electronic banking system).

g) Execution, delivery and management of processes - the treatment applied for customers and commercial counterparts, as well as the defective processing of customers' data, identified in the shape of losses generated by inadequate operation of transactions or management of processes; losses from business partnerships (for example wrong recording the income data, defective management of the real guarantees, incomplete legal documentation, unauthorized access to the customers' accounts, disputes). Banking societies have internal structures at the central administrations, through which they centralize the operational risk events from all the territorial units. The notification of a banking operational risk event is the action of reporting to the mentioned structure an operational risk event identified in the territorial banking unit or in the central administration of the bank.

2. For the **monitoring procedures**, registering and following the evolution of identified operational risk events. The organizational structures in each bank having responsibilities in managing the risks analyse the events generating banking operational risk and propose adequate measures, according to those events' gravity. Each banking society draws its own system of operational risk indexes, detailed on types of operational risk events.

3. For the operational risk **decreasing procedures**, the banking society draws its own procedures for correcting in time the errors that generate banking operational risk. The banking societies are also obliged to take measures for increasing the security of information processed in their territorial units and in the bank's central administration. Banks have the possibility to use alternative instruments for reducing the banking operational risk, as those offered by assurances, through which the risk is transferred to other domain.

3. QUANTIFYING OPERATIONAL BANKING RISK

3.1. Approaches permitted for quantifying the banking operational risk in Romania

According to the New Basel II Agreement the banking companies must accomplish specific capital requirements regarding the total credit, market and operational risk. The capital ratio is calculated using the definition of regulatory capital and risk-weighted assets and must be no lower than 8%, according to the 40 article from the Basel II Agreement:

$$\text{Total Amount of Capital}/\text{Risk - Weighted Assets} \geq 8\% \quad (1)$$

In the Basel II approach, average assets risk-weighted must include **capital requirements for covering the operational risk.**

In the field of capital adequately, in the second half of 2006, the Romanian active banking societies, as credit institutions, have to *maintain permanently* the solvency ratio at minimum of 12%[2]. The minimum level of the solvency ratio established in our country is higher than that of 8% presented in the Basel I Agreement, which denotes an attitude of prudence from the part of the regulatory authority in this domain - the National Romanian Bank.

The solvency ratio (expressing the proper funds as a ratio of total assets and elements outside the balance, net of provisions, adjusted according to the risk degree), though it has registered a certain recession in the past years, is maintained at a high level (20,21 % at the end of 2005 and 19,72 % at March, the 31[st] 2006), much higher than the minimum imposed by the banking prudence regulations applicable in Romania (12%) and also than the minimum admitted by the European and international regulations (8%), and higher than that registered in the Euro area (of 11,5%).

The active banks in Romania must determine their capital necessary for covering the operational risk **using one of the three means of quantification mentioned by the Basel II Agreement, assumed by the Capital Requirements Directive CRD and by the national**

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[2] According to article 7 of the National Romanian Bank's Regulation no. 12/2003 regarding the monitoring of the solvency and the high exposures of the credit institutions, published in the Romanian Official Monitor no. 51/2004, modified by the National Romanian Bank's Regulations no. 9/2004 and 12/2005 (Official Monitors no. 786/2004 and 840/2005).

legislation – the National Romanian Bank's regulation regarding the operational risk: *the Basic Indicator Approach, the Standardized Approach and Advanced Measurement Approaches*. Banks may choose one of the three methods mentioned above.

The first approach - the Basic Indicator Approach can be used by any bank, without being necessary the fulfilling of some extra requirements or the obtaining of approvals. Banks can calculate the necessary of capital for covering the operational risk applying the Standardized Approach only after a pre-available approval from the Supervising Direction of the Romanian National Bank. For obtaining the pre-available approval from the central bank, a bank must transmit to the Supervising Direction of the Romanian National Bank documentation in the shape of a self-valuation, through which they prove the fulfilment of certain specific criteria:

a) Banks must have a well-documented system of identification, valuation and management of the operational risk, with precise and well-delimited responsibilities. This system must receive an internal validation and must be independently and regularly examined, at least once a year and also as many times as the objective conditions impose this fact.

b) Banks must provide for the identification of exposals to operational risk and the monitoring of relevant information and data regarding the operational risk, including those referring to the significant losses.

c) Banks must provide the integrity of the system of valuating the operational risk in the risk managing processes existing in the institution. The results of the operational risk valuation must be a part in the process of monitoring and controlling the operational risk profile in the institution.

d) Banks must implement a system of internal reporting to provide periodically, but at least yearly, the supply of reports regarding the operational risk for the relevant structures and persons inside the entity.

Credit institutions can determine the capital requirement for covering the operational risk through applying the Advanced Measurement Approaches only after was obtained the *pre-available approval for using an internal model,* from the Supervising Direction of the Romanian National Bank. Obtaining this approval supposes presenting by the credit institution of the Romanian National Bank of a specific documentation referring to a qualitative and quantitative standards set.

In the case in which a credit institution or a financial investments services company, Romanian juridical person, is a mother-company at the European Union's level, branch of a credit institution – mother, respectively an investments company – mother at the European Union's level or branch of a holding financial company – mother at the European Union's level and if it is intentioned the use at the group level of the advanced evaluation approach of the operational risk, every approval request addressed to the Romanian National Bank must be accompanied by a specific documentation, and by a description of the methodology used for capital allocation for the operational risk between the entities from the group. Using the Advanced Measurement Approaches combined with the other approaches (the Basic Approach, be it with the Standardized Approach or with the Alternative Standardized Approach) is possible only with the agreement of the Supervising Direction of the Romanian National Bank's approval. As regards the combined use of the approaches to determine the capital requirement in a group, in Romania we face with the following situation:

Table 1. The combined use of the approaches in order to determine the capital requirement at the group's level.

The approach used by the subsidiary	The approach used in the group		
	Basic Approach	Standardized Approach or Alternative Standardized Approach	Advanced Measurement Approach
At the subsidiary level we use the Basic Approach	-	Partial using is accepted.	Partial using is accepted.
At the subsidiary level we use the Standardized Approach or Alternative Standardized Approach	Partial using is not accepted.	-	Partial using is accepted.
At the subsidiary level we use the Advanced Measurement Approach	Partial using is accepted.	Partial using is accepted.	-

3.2. The Basic Indicator Approach

Banking societies must permanently have funds for covering the operational risk to which they are exposed. In the framework of the Base Indicator Approach calculating the capital required for covering the operational risk is done by applying the 15% quota upon a relevant indicator determined according to the methodology exposed below. The relevant indicator is calculated as an arithmetic average of the *annual gross results of the bank's activity* recorded by the credit institution in the last three ended financial exercises.

Banks using the Basic Indicator Approach must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted alpha) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average. The charge may be expressed as follows:

$$K_{BIA} = \left[\sum (GI_{1...N} \times \alpha)\right]/N , (2)$$

where:

K_{BIA} = the capital charge under the Basic Indicator Approach;
GI = annual gross income, where positive, over the previous three years;
N = number of the previous three years for which gross income is positive;
α = 15%, which is set by the Committee, relating the industry wide level of required capital to the industry wide level of the indicator.

The gross result of the banking activity is determined as an algebra sum of some specific elements based on the elements from the profit and losses account at December 31, audited.

The negative or null values of the annual gross result, if such situations appear, are not considered in calculating the relevant indicator. In such cases, the relevant indicator is calculated through reporting the positive values' sum of the annual gross result to the number of years in which bigger than zero values has been recorded. If the credit institution does not have the necessary data in an audited form, we will use the estimations of those data.

In calculating the annual gross result we are including the following specific elements, having the signification of the elements from the profits and losses account of the credit institution realized according to the Romanian Settlements from 22/12/2005 – Accounting Settlements according to the European Directives applied to the credit institutions: Interest income and

assimilated income, inclusively from debentures and other fixed income bonds; Interest expense and assimilated expense; Income from shares and other variable income securities; Commission income; Commission expense; Net profit/ (loss) from financial operations; Other operating income.

In determining the annual gross result of the component elements like incomes or profits we are considering them positive, and the expenses or losses we consider them negative. In determining the annual gross result of the banking activity the following aspects are taken into consideration:

- Valuation procedures.

- Calculating the annual gross result of the banking activity is done before deducting the provisions and other exploitation expenses. In the exploitation expenses are included the expenses with the externalized activities to other parts, in the situations in which that part is not the mother-company or a filial of the mother-company – credit institution. The credit institutions can deduct the expenses related to the externalized activities in the situation in which the externalized services providing institution is respecting the prudential requirements applied to the credit institutions in Romania or some equivalent prudential requirements.

- There are not included in the calculating procedure of the annual gross result of the banking activity the profits or losses resulted from the selling of the elements not-included in transaction portfolio, extraordinary incomes and assurances' incomes.

- Sums representing corrections upon the value of the elements included in the transaction portfolio can be included in the calculating procedure of the annual gross result, if they are found in the profits and losses account. Corrections upon the value of the transaction titles that are found on the profits and losses account must be included in the calculating procedure of the annual gross result.

The current model in which is elaborated Account of profits and miss in Romania permits the identification to all the necessary elements of the settlement of crude annual result, depending on which is established the prerequisite for extreme the covering risk operationally. This means that which banks makes ones choice for base approach in the quantification risk operationally, aren't obliged to achieve adjacent situations. The banks dispose of the primary information for the determination of the requirement of capital concerning the operational risk, on the strength of account of profit and miss. In Romania, the banks draw up yearly the balance-sheets, accounts of profits and miss, the situation of the fluxes of treasury, the situation modification of own capital and explanatory notes. The information contained of these situations are public, the banks be bound to gives the publicity the financial annual situations, carry preliminarily I must audited. The national legislation in matter of financial annual situations of the banks transposes the European legislation (IV-th Directive of the European Economic Committee 78660 CEE looking the annual accounts ale some commercial societies).

3.3. The Standardized Approach

In According to the Standardized Approach, banks' activities are divided into eight business lines. Banking societies have to group their activity on the eight activity lines. In grouping the

activities on lines, the active banking societies in Romania must respect the following **principles** regarding the grouping on the activity lines:

1. Credit institutions, others than the ones that are applying the base approach in the purpose of determining the capital request related to the operational risk, have the obligation of establishing policies and adequate criteria of framing different activities on the eight lines and to transpose them clearly and transparency in the internal norms.

2. Framing criteria on the activity lines must be periodically analyzed and adjusted adequately in the case of new activities and risks or for the ones that had changed.

3. Framing the activities of the credit institution on lines.

4. Credit institutions will apply the principles announced, correspondently, and in the case of allocating the gross result on activity lines. More, the credit institutions can use internal methods of establishing the prices for the purpose of allocating the gross annually result on the relevant activity lines. The costs generated by the activities included in a certain activity line to which are belonging, but which are imputed to some activities from another line, can be relocated to the activity line to which are rightfully belonging, using a mechanism of internal transfer of the costs.

Standard approach of the banking operational risk imposes for a banking society to group its activities on activity lines anterior mentioned, considering the grouping rules mentioned above. Yearly financial situations of an active banking society from Romania (especially the balance sheet, profit and losses account, situation of modification of the self capitals, situation of the cash-flows and the explicative notes), as they are established presently by the legal settlements (Settlements from December 22 2005 regarding the European directives, applicable to the credit institutions, approved through Romanian National Bank Order no. 5/2005, published in Romanian Official Monitory no. 1182/2005) do not contain the detailed activities of the bank on the activity lines requested by the settlements according to the Basel II Agreement. In such context, every banking society which wants the quantification of the banking operational risk through standard approach is obliged to configure its evidence system of the operations, based on which it can identify the eight activity lines according to the Basel II Agreement settlements.

Such a system can't be operational and efficient only though an integrated informatics application, of the level of the entire banking society, as well as at the level of the Central unit, as at the level of each territorial operative banking unit.

Because the measurement of the banking operational risk in standard approach imposes to the bank to establish the yearly gross incomes on activity lines from the last three years, the banking society must act post factum in grouping the activities on lines, for at least three financial closed exercises.

Grouping the activities developed by a banking society on activity lines, according to the requests from the standard approach of the operational risk, represents a difficult exercise for the bank. Information from the yearly financial situations that the bank is disposing does not allow it to classify the banking activities on lines, only after detailed analyzes.

For each of the activity lines, the banking society must establish the gross income, for the last three financial exercises closed. For this there are used information from the profits and losses account, which are presenting the expenses and incomes of the banking societies. Only that, the format of the profits and losses account of the active banking societies from Romania does not contain the activity lines settled by the Basel II Agreement.

Standard approach of the banking operational risk does not suppose sophisticated calculus for the banking units. *The difficulties are related of identifying correctly the activity lines*. Once established the yearly gross incomes for each activity line, it proceeds to effective calculating the needed capital for covering the operational banking risk.

Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta) assigned to that business line. Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line. It should be noted that in the Standardized Approach gross income is measured for each business line, not the whole institution, i.e. in corporate finance, the indicator is the gross income generated in the corporate finance business line.

The total capital charge is calculated as the three-year average of the simple summation of the regulatory capital charges across each of the business lines in each year. In any given year, negative capital charges (resulting from negative gross income) in any business line may offset positive capital charges in other business lines without limit.

However, where the aggregate capital charge across all business lines within a given year is negative, then the input to the numerator for that year will be zero. The total capital charge may be expressed as:

$$K_{TSA} = \left\{ \sum_{years:1-3} \max\left[\sum \left(GI_{1-8} \times \beta_{1-8}\right), 0\right] \right\} \Big/ 3, \quad (3)$$

Where:
K_{TSA} = the capital charge under the Standardized Approach
GI_{1-8} = annual gross income in a given year, as defined above in the Basic
Indicator Approach, for each of the eight business lines
β_{1-8} = a fixed percentage, set by the Committee, relating the level of required capital to the level of the gross income for each of the eight business lines.

The values of the betas are: Corporate finance 18%, Trading and sales 18%, Retail banking 12%, Commercial banking 15%, Payment and settlement 18%, Agency services 15%, Asset management 12%, Retail brokerage 12%.

The elements of the profits and losses account of the active banking societies from Romania **do not offer sufficient information** for calculating the gross income on activity lines. That is why necessary the information corroboration with the ones was obtained from the explicative notes of the yearly financial situations of the studied society. Legislation in Romania appreciates that for each significant element from the yearly financial situations must exists

information in the explicative notes (article 119 from the Settlements from December 22 2005 regarding the European directives, applicable to the credit institutions, approved through Romanian national Bank order no. 5/2005, published in Romanian Official Monitory no. 1182/2005). Without considering until the present day the settlements of the Basel II Agreement, the banking societies present in the explicative notes detailed of the expenses and incomes, difficult of framing in the banking activity lines specific to the standard approach of the banking operational risk.

Following we will present a possible allocation of the incomes and expenses included in the income statement of the banking society on activity lines, having as base the information contained by the explicate notes (notes to the financial statements) at the yearly financial situations:

- Risk decreasing procedures, either in the internal field, by correcting in time the determined errors and by introducing adequate technologies for processing and insuring the information security, or by transferring the risk to other domains of activity (for example insurances against some events.

- Interest income from loans to individuals and enterprises are framing in the activity line Commercial banking. There are not appreciations regarding the juridical type of the persons to which are given credits, which does not allow the detailing of these incomes in the line Retail banking and Commercial banking. Applying the rule according to which an activity difficult to frame in the line with the bigger coefficient, we are imputing these incomes to the line Commercial banking. Interest income from placements to domestic and foreign banks is framing to the line Commercial banking. Interest income from securities and treasury bills is framing in the activity line Trading & Sales. Interest income from Repo agreements is framing in the activity line Agency services. Interest income from placements to National Bank of Romania is framing in the activity line Commercial banking. Interest income from guarantees issued is framing in the activity line Commercial banking (there is no is framing for the activity line Retail banking, as it should). Interest income from financing commitments is framing in the activity line Commercial banking (there is no is framing for the activity line Retail banking, as it should). Income from leasing of saving boxes is framing in the activity line Asset management. Interest income from commissions from derivatives financial operations is framing in the activity line corporate finance.

- Interest expense with customers' current accounts and deposits is framing in the activity line Commercial banking (there is no is framing for the activity line Retail banking, as it should). Interest expense with placements with domestic and foreign banks is framing in the activity line Commercial banking. Interest expense with subordinated debts is framing in the activity line Commercial banking. Interest expense with term loans is framing in the activity line Commercial banking. Interest expense with commitments with other banks and clients is framing in the activity line Commercial banking (there is no is framing for the activity line Retail banking, as it should). Interest expense with securities and treasury bills is framing in the activity line Trading & sales. Interest expense with Repo is framing in the activity line Trading & sales. Interest expense with commissions from derivatives financial operations is framing in the activity line corporate finance.

- Commission income from customers' transactions covers a large class of operations with clients, which makes impossible the allocation to a certain activity line. We consider opportune weighting this income with a maximum coefficient of 18%. Commission income from payment instruments is framing in the activity line Payment & settlement. Commission income from other financial services can't be imputed to a certain activity line, because of missing information, which leads to weighting the income with a coefficient of maximum 18%. Commission income from consulting services is framing in the activity line corporate finance. Commission income from inter-banking operations is framing in the activity line Commercial banking. Commission income from operations with securities is framing in the activity line Trading & sales.

- Commission expense from inter-banking operations is framing in the activity line Commercial banking. Commission expense from payment instruments is framing in the activity line Payment & settlement. Commission expense from customers' transactions and commission expense from other financial services can't be frame in a certain activity line and we consider opportune the use of the coefficient 18%. Commission expense from investment operations is framing in the activity line Trading & sales. Commission expense from foreign exchange operations is framing in the activity line Trading & sales.

- Foreign exchange gain and expenses with foreign exchange is framing in the activity line Trading & sales.

- Income from held for trading investments, income from cession of placements, losses from held for trading investments and losses from cession of placements are framing in the activity line Trading & sales.

- Other income from operating activity cannot be framed in a certain activity line, because of missing information, which leads to weighting the income with a coefficient of maximum 18%. Income from commitments given to clients is framing in the activity line Commercial banking, because in the yearly financial situations there is not sufficient information for detailing these incomes for the activity line Retail banking. Income from rent is framing in the activity line Asset management. Other income can't be framed to a certain activity line and we are proposing a coefficient of maximum 18%.

- Expenses with taxes, sponsorship expenses, penalties and damage compensations, other banking operating expenses and other expenses are not sufficient detailed in the yearly financial situations and as a consequence they can not be classified on activity lines. In such a context, it is opportune for using a coefficient of maximum 18% for these expenses.

- As well, administrative expenses, corrections over receivables and provisions and income from value of receivables and provisions cannot be framed in a certain activity line and we are proposing the same treatment, through using the maximum coefficient.

- Income from cease of treasury bills and expenses with cease of treasury bills is framing in the activity line Trading & sales.

- Expenses with staff salaries, expenses with social securities and other staff expenses can not be easily framed on activity lines and they represent easily extensions of the activities already framed, because the banking staff is developing activities adjacent to the other eight activity lines specific to the standard approach of the banking operational risk. In such a situation we consider opportune the framing of the salary expenses and assimilated to an activity line weighted with a maximum coefficient of 18%.

We are mentioning those elements that can't be framed in a certain activity line, had been take over in the first line corporate finance, which is weighted with a coefficient of maximum 18%. It can be observed the recording of some yearly negative gross income for dome activity lines, which leads to a negative request of capital for that activity line. This negative request line is deducted from the capital request belonging to the financial exercise to which is referring to.

3.4. The Alternative Standardized Approach

By applying the alternative standardized approach, banks are able to find out the capital requirement for covering the operational risk, if they receive the previous approval of the National Bank of Romania's Surveillance Head Office. A bank may apply this type of approach of the operational risk if it carries on mainly retail banking business and/or commercial banking business, the obtained incomes being at least 90% of the bank's total incomes.

The methodology for determining the capital requirement for covering the operational risk using the alternative standardized approach is the same as for the standardized approach, except the two business lines: Commercial banking and Retail banking, for them the annual gross income is replaced by an alternative indicator for the normalized income, equal to 0,035 of the medium annual volume of loans and advances according to this two business lines, estimated on the basis of the data from the last three financial years.

3.5. The Advanced Measurement Approach

Advanced Approach Measurements represents a set of operational banking risk's quantification methods, found in the Basel II Agreement. Advanced evaluation approach in quantifying the banking operational risk is not an accessible method to any credit institution, including also active banking company from Romania. On the other hand, banking companies are discouraged in applying this method by the complexity of evaluating methods, and on the other hand, by the restrictions imposed by the national supervising authority – Romanian National Bank, in applying these methodologies of quantifying the operational banking risk.

So, according to the 33 article from the Romanian National Bank Regulation regarding the operational risk, institutions that are applying before January 1st 2010 the advanced evaluation approach for determining the capital requirement for the operational risk must have, during the year 2008 and 2009 total self funds at a higher level than 90% respectively 80% from the total self funds necessary that could result by applying the available settlements before January 2007.

In determining the capital requirements for covering the operational risk, institutions include also the expected and un-expected losses, so:

$$\text{Capital Charge under AMA (CC}_{\text{AMA}}) = \text{Expected Loss (EL)} + \text{Unexpected Loss (UL)} \text{ (4)}$$

If ELs are already captured in a bank's internal business practices, then capital charge set at the unexpected loss alone:

$$\text{Capital Charge under AMA (CC}_{\text{AMA}}) = \text{Unexpected Loss (UL)} \text{ (5)}$$

In AMA approach, there is no specification regarding the analytic approach that has to be used by the banking companies. However, banks must demonstrate that their measurement system is sufficiently "granular" to capture severe tail loss events, e.g 99.9% VaR. quantifying the operational banking risk must include also the low frequency risk events and with potential major negative effect, situate given by the extremity of the statistic distribution curve, so that it will assure a rigorously standard compared to the a trust interval of 99,9% for a year time horizon.

Regarding the achievement of the mentioned rigorously standard, the operational risk quantification system of an institution must include a series of essential criteria, among which at least: internal data use, external data use, scenario analysis and business factors use and the internal control system. A bank needs to have a credible, transparent, well-documented and verifiable approach for weighting these fundamental elements in its overall operational risk measurement system. In such cases, scenario analysis, and business environment and control factors, may play a more dominant role in the risk measurement system. The correlations between the losses estimations from the operational risk can be recognized only if the institution can demonstrate adequately in the Romanian National Bank's opinion or of the National Committee of Values, which the correlation measurement systems are rigorously, are correctly implemented and take into consideration the incertitude level corresponding to such estimations, especially in the crisis periods. Institution must validate the hypothesis referring to the correlations by using corresponding quantitative and qualitative techniques.

The operational risk quantification system must be well preserved on the internal plan and it must be avoided taking into consideration for more than one time the positive results of the qualitative evaluation or the diminution of the risk techniques, which have already recognized in other segments of the capital adequacy framework.

Operational risk quantifications generated by the institution must be substantiated on a ***historical observation period of at least five years.*** In the case in which an institution applies for the first time the advanced approach of quantifying the operational risk it can be accepted a historical observation period of ***minimum three years.***

For applying the advanced evaluation approach in quantifying the operational risk, a credit institution must have ***the capacity of splitting the internal historical data regarding the operational risk on some activity lines and loss events' categories*** and can send these data to the Romanian National Bank, on its request. There are eight activity lines set through the Romanian National Bank's Regulation regarding the operational risk and they are according to the Basel II Agreement: *financing the commercial companies, transactions and sells, retail brokerage, commercial banking activity, retail banking activity, payments, agent services and assets' management.*

There are seven types of operational banking risk generator activities specified by the Romanian National Bank's Regulation regarding the operational risk and they are adapted after the Basel II Agreement: *internal fraud, external fraud, employment practices and working place safety, clients, products and business practices, damages upon the corporal assets, activity breaking and inappropriate functioning of the systems, execution, delivery and processes' management.* Criteria of allocating the losses on activity lines and on events' categories must be objective and well documented.

4. THE ROMANIAN BANKS' ATTITUDE IN MANAGING OPERATIONAL RISK AND IN FOLLOWING THE REQUIREMENTS FOR THE BANKING CAPITAL ADJUSTMENT

Regarding the capital adequacy, the Romanian banks' state is a pretty solid one. 28 of a total of 40 credit institutions operating in Romania by the end of 2005 have increased their authorized capital during the year. Because of that, the real growth of the authorized capital in the banking system was estimated at around 38%, compared to the last year.

The most dynamic element of the own capitals was the authorized capital, while amongst the components of the watering capital the strong growth of the subordinate contracted by banks stands out. A very important element of the own capitals remains yet the current outcome of the financial year, while the level of the watering capital was mainly sustained by the volume of the reserves from the revaluation of the patrimony registered in the banks' balance sheet.

Table 2. The evolution of the own funds and the capital adjustment indicators estimated for banks- legal persons[3]
- thousands RON (national currency)

Indicator	31.12.2003	31.12.2004	31.12.2005	31.03.2006
Own funds	7074174	9339730	13502002	14154351
Own capital	6073256	7290693	10417391	10978689
Authorized capital	3674765	4615785	6848931	7682375
Current outcome	1234280	1676035	1999485	550492
Subordinate loans	239790	450061	1480347	1556926
Revaluation reserves	1022462	1387090	1378016	1394383
Solvency rate> 12%	21,09%	20,55%	20,21%	19,72%
Own capital and adjusted assets rate > 8%	18,11%	16,04%	15,59%	15,30%

The real growth of own capital as well as own funds has maintained at a high level in the past three years, mainly due to the banks' desire to assure a solid base for the growth of the private credit.

In order to test the stability of the Romanian banking system, in June 2005, the central bank perfected a stress test analysis to examine the effect of foreign shocks on the level of the own funds and the solvency rate reported by banks. The simulated foreign shocks are the devaluation of the national currency exchange rate by 18,6%, corroborated with the 6,7% decrease of the interest rate for the national currency.

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[3] Romanian National Bank, Report on financial stability for the year 2006, p. 58.

The National Bank's conclusions stated in the Report on financial stability for the year 2006 show that the Romanian banking system has the ability to absorb the negative effects of the shocks taken into consideration in the script. It is considered that the Romanian banking system holds an adequate capitalization and a substantial liquidity. In the simulated circumstances there weren't any insolvency cases regarding the banks. The estimated solvency shows a decrease of only 1,6% for the entire banking system. At an individual level, the banks registered the estimated solvency indicator values situated above the minimum level imposed by the banking prudence regulations to be applied in Romania (12%), except one small bank (holding only 0,9% of the total shares of the banking system), where this indicator for the stress situations was 9,7%. Yet this level is located above the European and international minimum. And it is noticeable that this bank's authorized capital has been increased during November 2005.

Of course the decisional factors from the banking societies perceive the Basel II Agreement firstly as an imperative frame for them to manage the banking societies and only after that as a possibility of efficient management of the banking societies. That's because the Agreement hasn't proved its importance for the credit institutions yet and its favourable effects for them. Otherwise, any new thing proves its utility and importance only after the practice has tested the theoretical settlements of that regulation.

For now, the active banking institutions from Romania are not tempted to adopt in 2007 internal methods for quantifying the operational risk[4], because:

- Risk decreasing procedures, either in the internal field, by correcting in time the determined errors and by introducing adequate technologies for processing and insuring the information security, or by transferring the risk to other domains of activity (for example insurances against some events.

- The solvency is significantly superior to the minimum level regulated at present in Romania (12%), therefore there isn't any stimulus for saving own funds by using more advanced methodologies.

- In the case of the banking institutions that are a part of multinational groups, the Romanian banking market may be considered too small at the group's level in order to justify the costs of implementing the Basel II advanced approaches, banks being oriented at the present towards the increase of the market rate.

- The quality of the statistical data for supplying the internal models may be insufficient.

- Some banks may not have internalized the Basel II project as being in the spirit of a modern risk management.

Regarding these statements there are the banks' option to apply the new version of Basel II or the Basel I Agreement. According to the information made public by the central bank at the end of May 2006, the answers to the final questionnaire sent to the credit institutions have shown that approximately half of them will keep the Basel I approach, table 3. Many of the

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[4] Romanian National Bank, Report on financial stability for the year 2006, p. 107.

banks have chosen the standardized approach for the credit risk and the base indicator for the operational risk.

Only two banks have declared in 2005 that they will use methods based on the internal models in quantifying the capital requirements starting with January 2007, but at the final questionnaire none of the banks have declared that they will apply advanced valuation methods in determining the capital requirements specific to the operational risk.

Table 3. The type of approach declared by the Romanian credit institutions to be used in 2007 to estimate the capital requirements for operational risk

The operational risk approach	Number of credit institutions, in the month		
	07/2005	*11/2005*	*05/2006*
The basic indicator approach	11	17	20
The standard approach	10	13	13
The advanced internal models approach	4	2	0
The undecided credit institutions	9	2	0

It's obvious that none of the Romanian active banks intend to apply the Advanced Measurement Approaches in managing the operational risk in the near future. Banks are discouraged in applying this approach because the banks internal historical data regarding operational risk generating events either don't exist or are insufficient. And the external potentially operational risk generating events must be adequately estimated, and for this a bank needs adequate risk parameters. It is very difficult for a bank to estimate the probability and the impact of the banking operational risk generating events. The probability and impact of the risk events measuring scales (regarding the financial outcomes, strategic objectives, and the bank's reputation) are, in essence, subjective. Then these measuring scales must be correlated efficiently with operational risk events control procedures. In order to apply the Advanced Measurement Approaches a bank has to invest huge amounts for the support software applications, the training of the personnel and for the alternative instruments for managing the banking operational risk (insurance). The Advanced Measurement Approaches involve approvals for a bank from the National Bank of Romania based on complex researches.

All of these aspects have discouraged the banks –Romanian legal persons – to apply the Advanced Measurement Approaches AMA. We believe that for now, the first two approaches are more suitable for the Romanian banking system, although the capital requirements for covering the operational risk are considered superior in these approaches unlike the Advanced Measurement Approaches. The present capitalization level of the Romanian banking system allows banks not to decide to implement the Advanced Measurement Approaches- an effective management of banking operational risk.

In the first half of 2007, all banks from Romania are still planning or in the process of implementing their plans for Basel II. The majority of banks are continuing to struggle with Pillar I (the minimum capital requirements necessary for covering specific risks of banking: credit risk, market risk and operational risk). For the second (the process of prudential supervision) and third (the market discipline) Pillars it was remark the absence of the banks concentration.

Each Romanian bank has adopted a certain strategy regarding the Operational Risk Management. The objective of the strategy regarding the Operational Risk Management is becoming conscious of the operational risk and of the responsibilities in managing this risk at the whole bank's level in order to maintain the risk at adequate parameters to permit the development of the bank's activity in optimum conditions. The process of managing the operational risk is a cyclic one, meaning the repeated development of four steps (Identification, Valuation, Monitoring and Management) and means *identifying and catching the losses* generated by the operational risk's development. In this way importance is given to the identification of the type of followed losses, the persons responsible for reporting the losses, the criteria and methods of validating the registrations. After validating and insuring the information's consistency, these will be stored in a database regarding the losses from operational risk – "Loss Database"-, and this database will be the foundation for the future valuations of this risk. The database will contain information regarding the registered losses, and also regarding their retrieval, for example the retrieved amounts, the moment of retrieval, sources of retrieval etc.

The specialists from Romanian banking system estimate that the international biggest banks from Romania (like ABN Amro, ING or Citibank) will be able to face Basel II foresights without difficulties. The small banks will have to increase the capital or will be taken over by the bigger banks. As for the origin country of the capital invested in banks and branches of foreign banks working on the Romanian banking market, the first three places are occupied by Austria (20.9 per cent of the total capital in the banking system), Greece (14.7 per cent) and Italy (5.9 per cent). The weight of the assets owned by foreign or majority foreign capital banks, including the foreign banks' branches, was of 61.9 %, while the public or majority public banks have a weight of only 6%.

Table 4. The structure of foreign ownership in Romanian banking system (% in total capital[5])

Date	Austria	Greece	Italy	France	Holland	Other countries	Total
March 2006	20,9	14,7	5,9	5,4	7,9	15,4	70,2

The lowering tendency of the concentration degree along with the tendency of increasing number of banks with majority foreign capital in the system can be perceived as signs of competition enhancement. The reasonable level of concentration is also confirmed by the Herfindahl - Hirschmann index (*regarding the assets*), valuing 1130 at the end of March 2006.

The involvement of foreign banks has brought significant benefits like an easier access to foreign financing, a better efficiency in managing the risk, a better corporate governship and an enhancement of the general stability of the banking system.

Ernst&Young[6] was realising in 2005 a study in association with BIU Unit Economist about the implementation of Basel II (respondents are 307 banks globally, among which 3 banks from Romania). According to the mentioning study, the average of expected cost of Basel II implementation across all institutions of all sizes and approaches (standard or advanced) was 70 millions USD. Less than 30% respondents from large institutions are planning to spend

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[5] Romanian National Bank, Report on financial stability for the year 2006, p. 54.
[6] Andrew McCartney's Presentation "Countdown Basel II Compliance", site http://209.85.129.104/search?q=cache:are1IbsEwD8J:www.ey.com/GLOBAL/content.nsf/EYSEE/Events+ernst+Young+Romania+presentation+McCartney&hl=ro&ct=clnk&cd=1&gl=ro

less than 50 millions USD. 80% of small institutions are planning to spend 50 millions USD or less.

To the initial costs regarding to Basel II implementing it be added continuous outgoes. This is especially in IT zone, for authorization and maintenance, and for specialized human resources qualifications in risk management. The banks will have to constitute the team which study the models of risk administrate and this operation cost very much. Foreign banks shareholders who are actively in Romania will make the decisions for sustain or not these costs, considering this factor: banking market quota in Romania. It is a lot of worries that a lot of banks in Romania will be applied the based Approach Basel II, because of big outgoes for Basel II implementing.

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A TEST OF THE CURRENCY SUBSTITUTION HYPOTHESIS: THE CASE OF BULGARIA 1992-1997[1]

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1. INTRODUCTION.

Currency substitution is an ambiguous concept which should be distinguished from asset substitution and dollarisation. It is difficult to measure currency substitution since the amount of foreign cash circulating in the domestic economy is often unknown. The most common proxy used is the ratio of foreign currency deposits to total deposits in the banking system. Some of the main implications of currency substitution are related to the limited role of the monetary authorities to control money supply and the decreased seigniorage. Currency substitution on the demand side results from transactions, precautionary and speculative motives for holding money. Economic agents use cash to pay for everyday transactions thus emphasizing the transactions motive. The other two – the speculative and precautionary motives - involve keeping cash for some attractive investment opportunity in the future or some emergency requiring more cash.

Arising from the motives for holding money, there are two main theoretical models of currency substitution. According to the money services model foreign money is held due to its liquidity services. In the portfolio balance model, however, foreign money balances also serve as a store of value. The model used in this research is that developed by Ratti and Jeong which attributes currency substitution to three main factors - the interest differential between foreign and domestic rates of return, the real exchange rate and trade volume (Ratti and Jeong, 1994). The rates of return reflect the speculative or investment motive for currency substitution, the real exchange rate, the transaction motive, and trade volume is included to capture the growth or portfolio size effect. Currency substitution is measured by the ratio of foreign currency deposits held in domestic banks to domestic money balances (M2).

The introduction of the currency board in 1997 stabilizes the economy – inflation levels decrease and depreciation of the lev is contained. Domestic currency denominated assets become more attractive as the lev is not losing its value relative to foreign currency. People start to restore their confidence in the banking system. Nevertheless, in the first years after the introduction of the currency board there is no significant decrease in the amount of foreign currency holdings. It may be due to the fact that a long period of sound economic and political activity is necessary. Or it reflects the natural desire of agents to diversify their portfolios.

Finally, it should be noted that the estimated model does not measure the amount of foreign currency bills circulating in the economy.

The aim of this project is to investigate the main motives driving currency substitution in Bulgaria. It is claimed that the experience of transition economies resembles that of some Latin American countries such as Argentina, Bolivia, Mexico, Peru, and Uruguay (Sahay and Vegh, 1995). However, currency substitution in transition economies has received much less attention than in Latin America. Therefore, I will examine this issue and draw some conclusion about the nature and effects of currency substitution on the Bulgarian economy. There are studies on the topic for Bulgaria, but none of them focuses on the period of the early 1990's until the introduction of the currency board. As noted above, I employ a model that combines both transaction and speculative motives for substitution. Trade is also considered as an additional motive for Bulgarians to substitute foreign currency for levs and thus further contribute to the empirical research on currency substitution.

The paper is structured as follows. Section 2 gives an insight into the meaning of the term "currency substitution" and presents some of the implications of the increased use of foreign currency in the domestic economy. Section 3 reviews the theoretical and empirical literature and Section 4 presents an overview of the economic and political situation in Bulgaria after the start of reforms. The model to be tested is set out in Section 5 and the econometric methodology and estimation results are discussed in Section 6. Section 7 concludes.

2. DEFINITIONS AND IMPLICATIONS OF CURRENCY SUBSTITUTION.

2.1. Definitions.

Currency substitution is an ambiguous concept. It is important to distinguish between currency substitution, dollarization and asset substitution. Feige, *et al*, make a clear distinction between the three concepts. Currency substitution refers to the use of a foreign currency in the domestic economy as a unit of account and medium of exchange. Asset substitution involves the use of foreign denominated monetary assets as a store of value. Lastly, the term dollarization implies that foreign currency produces all types of money services. In this sense it is a much broader concept than currency substitution. With currency substitution the demand for foreign currency (as a means of exchange) relative to domestic currency is determined by the opportunity costs of both currencies, that is the domestic and foreign nominal interest rates. Dollarization, on the other hand, is related to portfolio considerations and depends on the real rates of return of the domestic and foreign currency denominated monetary assets. The term dollarization is usually used to refer to currency substitution in Latin America (Feige, *et al*, 2000).

The best measure for dollarization will involve foreign banknotes circulating as a medium of exchange in the economy and foreign currency denominated deposits acting as a store-of-value in the domestic banking system and abroad. It is difficult to measure the amount of foreign currency notes in the domestic economy. The obstacles are related to the transactions performed in the black market and the considerable amounts of foreign cash that individuals store "under the mattress". Another problem is data on foreign currency deposits held by domestic residents abroad. That is why what is usually used both as a measure of currency substitution and dollarization is the ratio of foreign currency deposits in the domestic banking

system relative to broad money supply. It represents an underestimation of the actual amounts of currency substitution (and dollarization) especially if there is a big economic instability in the country and foreign deposits in the domestic economy are either prohibited or can be confiscated by the authorities (Giovannini and Turtelboom, 1992).

Another thing that contributes to the ambiguity of the concept is whether the term "substitution" refers to a characteristic of currencies or to an equilibrium outcome. In the first case it is better to use "substitutability" instead of substitution while in the second "substitution" is all right. The study of currency substitutability focuses on its domestic and international effect on variables of interest to economists and policy makers. Currency substitution, on the other hand, would put the stress on the size and causes of the replacement of one currency with another (Giovannini and Turtelboom, 1992).

Some authors see currency substitution as foreign money substituting for domestic money in its three traditional functions – store of value, medium of exchange and unit of account. Others confine their interpretation to the store-of-value role of money. Usually, especially in transition countries, we observe unofficial dollarisation – the circulation of foreign currency in the domestic economy is not stipulated by law but is due to various factors that make foreign currency more attractive than domestic money, e.g high domestic inflation. Cases of official dollarisation are rare - Ecuador, El Salvador, Marshall Islands, Micronesia, Palau and Panama (Feige, *et al*, 2000). Confusion around the terms dollarisation and currency substitution and the related problems with their measurement make the study of currency substitution a cumbersome task. But the proper understanding of the concept is important in order to understand its implications which will be discussed next.

2.2. Implications of currency substitution.

After discussing the different roles that foreign money plays in the domestic economy I will now turn to the consequences of currency substitution. The use of foreign currency by domestic residents affects the monetary and fiscal policy of the home country. Some believe that governments should try to fight dollarisation as it has a negative impact on the economy. Still others consider that it is a natural outcome of financial market liberalization and should not be opposed.

The main implications of currency substitution are related to the limited role of the monetary authorities, the ability of the domestic government to collect revenue from inflation, and the effect on real exchange rate. Recalling the Gresham's law – "*bad money drives out good*" reveals that in the case of currency substitution it occurs in reverse. If, for example, individuals expect devaluation of one currency relative to another they would bring the bad currency to the banks in exchange for the good currency. Same is true if one currency becomes more acceptable in private transactions. Individuals will prefer to use it more extensively in their daily payments. In both cases the good money will drive the bad money out of circulation. The Gresham's law implies that changes in the valuation of different currencies may affect their circulation. This in turn may cause trouble for the monetary authorities since the central bank is not always able to accommodate the associated money demand fluctuation. Due to the foreign currency circulating in the domestic economy money supply is difficult to control. So, one of the implications of currency substitution is that it limits the scope for monetary policy (Giovannini and Turtelboom, 1992).

Another important effect is that it decreases government revenue from seigniorage. This may lead to sustaining high inflation levels. With a high degree of substitution between domestic and foreign currency it becomes harder for the government to finance deficits by printing money. Seigniorage is taken up by the foreign money holdings and the demand for domestic currency becomes more sensitive to the inflation tax rate. So, for any given inflation tax rate the revenue from inflation will be lower in the presence of currency substitution (Giovannini and Turtelboom, 1992).

The effect of currency substitution on exchange rate is another important issue. Calvo and Rodriguez claim that a monetary disturbance leads to fluctuations in the real exchange rate related to currency substitution. They develop a model where foreign cash balances are the only internationally traded asset. Thus, the only way that domestic residents can accumulate foreign balances is through current account surplus. A change in the rate of growth of domestic money stock, e.g. high inflation, make residents hold more foreign cash balances. This can happen through a depreciation of the real exchange rate which produces current account surplus. So, due to currency substitution changes in domestic money supply can trigger considerable exchange rate fluctuations (Calvo and Rodriguez, 1977).

Sometimes domestic residents continue to substitute foreign for domestic currency even if domestic inflation rates are falling. The persistence of currency substitution is usually attributed to the switching costs between the two moneys. As mentioned earlier most of the studies use a measure closer to the definition of dollarisation than to currency substitution. Currency substitution depends on the nominal interest rates and a fall in inflation usually leads to a lower demand for foreign currency relative to domestic one[2]. Dollarisation, however, is determined by the real rates of return between domestic and foreign currency denominated assets. Therefore, a fall in inflation rate will have no effect on dollarisation, except for the influence it might have on the real rates of return. Thus de-dolarisation will occur if there are high real rates of return on domestic-currency-denominated assets. It is important that with the change in inflation nominal interest rates adjust accordingly so the real interest rate does not change. Sometimes, if there are strict financial controls nominal rates cannot adjust and high inflation leads to low real rates of return (Sahay and Vegh, 1992).

Currency substitution (dollarisation) affects not only monetary but also fiscal policy. Foreign cash transactions facilitate tax evasion and increase the size of the unreported economy as they do not leave a paper trail. Dollarisation weakens government ability to control resources from the private sector and deepens fiscal deficit. Economic activity shifts towards the underground economy which makes formulating macroeconomic policy difficult. As foreign cash transactions are difficult to trace down they reduce the cost of enterprise theft and may encourage corruption and rent seeking (Feige *et al*, 2000[3]).

Some authors claim that governments should try to prevent currency substitution as it is harmful to liberalization and macroeconomics stabilization in transition countries (Mulligan, R. F. and E. Nijsse, 2001). High real rates of return on domestic deposits are often used to fight dollarisation. But such an interest rates policy is dangerous and may lead to a funding crisis. Other measures such as forcing the conversion of foreign assets into domestic assets and using indexed financial instruments are not efficient in combating dollarisation either, but

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[2] A decrease of the inflation rate represents a fall in the nominal domestic interest rate since $r = i + \Pi$, where r is nominal interest rate, i is real interest rate and Π is expected inflation.

[3] Here the authors refer to unofficial dollarisation.

bring about increased inflation. Usually dollarisation reflects serious fiscal and monetary disequilibria and can be dealt with only if those serious problems are already addressed.

Though dollarisation hinders monetary and fiscal policy it also entails some benefits for the economy, for example, reversing capital flight[4], building international reserves and providing more efficient allocation of financial resources. It is a natural result of liberalization and reflects the desire of people to diversify their portfolios in a world of capital mobility (Sahay and Vegh, 1992). That is why it is difficult to make a firm statement about currency substitution – whether and how it should be dealt with.

3. LITERATURE REVIEW.

3.1. Underlying theory.

There are two main theoretical models that describe currency substitution – the money service approach developed by Miles, 1978; Joines, 1985; Thomas, 1985; Bergstrand and Bundt, 1991 and the portfolio balance approach studied by Cuddington, 1983; Branson and Henderson, 1985; McKinnon, 1985. The money service approach involves a two-stage decision process. In the first period agents decide on the shares of monetary and nonmonetary assets they wish to hold. Then in the second period the choice between the different moneys is made. There is a clear distinction between currency substitution and capital mobility as the division between capital and monetary services is done in the first stage. Domestic and foreign money enter a production function that yields transaction services. Individuals decide how much foreign and domestic currency to hold according to the relative opportunity cost of the two moneys and the relative efficiency in producing liquidity services. The opportunity cost is measured by the domestic and foreign nominal interest rate, representing the marginal productivities of the home and foreign inputs in producing money services (Bergstrand and Bundt, 1991). This model emphasizes the role of money as a medium of exchange.

Formally the money service approach can be expressed in the following way:

$$M = Md + Mf \qquad (1)$$

$$M* = Md* + Mf* \qquad (2)$$

where M and M* are the total supply of domestic and foreign currency respectively and letters d and f denote domestic and foreign holders of money. The total supply of domestic currency is held by domestic residents (Md) and foreigners (Mf). Similarly M* is divided between domestic (Md*) and foreign holders (Mf*). M and M* are presented as:

$$Md + Mf = Pk_D(r, r^*)Y + Pk_F(r, r^*)Y^* \qquad (3)$$

$$Md^* + Mf^* = P^*k_{D^*}(r, r^*)Y^* + P^*k_{F^*}(r, r^*)Y^* \qquad (4)$$

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[4] Before reforms people preferred to hold foreign currency deposits abroad (capital flight) due to strict financial regulations and fear of confiscation at home. Dollarisation is associated with the return of this capital.

where P (P*) is price level; r (r*) stands for nominal interest rate, Y (Y*) is the level of real income and k is the reciprocal of the velocity of circulation. If we suppose that domestic resident hold only domestic money (Md* = 0) and foreigners hold both domestic and foreign balances[5] then the equation reduces to:

$$Mf = Pk_F(r, r^*)Y^* \tag{5}$$

or alternatively

$$Mf / P = k_F(r, r^*)Y^* \tag{6}$$

The signs of the partial derivatives of k with respect to r and r* are as follows: $k_{Fr} < 0$ and $k_{Fr^*} > 0$. Therefore, a rise in r will increase the opportunity cost of holding domestic currency and induce foreigners to switch to foreign currency. A rise in r*, on the other hand, means higher opportunity cost of holding foreign currency and increased demand for domestic money. An increase in r* will also lead to higher worldwide demand for domestic currency. The latter can be accommodated by a fall in domestic price level. Since the real quantity of domestic currency demanded by domestic individuals does not change there should be a flow of domestic currency from the home to the foreign country (Joines, 1985).

So, an increase in the domestic interest rate relative to foreign rates will increase the opportunity cost of holding domestic money and make individuals substitute foreign for domestic balances. This means that the cross elasticity of demand is positive and the two currencies are substitutes. Joines draws the attention towards the difference between elasticity of currency substitution and cross elasticity of demand. Those are two different concepts and high values of the former do not imply high values of the latter. An important result is that a high degree of international currency substitution cannot destabilize the domestic money demand function. What is also necessary is domestic residents to hold significant amounts of foreign money i.e. large cross-elasticity (Joines, 1985). To distinguish better between the two concepts here are two different empirical specifications both based on the money service approach. Miles, equation (7), estimates elasticity of substitution while Bordo and Choudri, equation (8), examine the cross-elasticity of money demand.

$$\log(Md / eMf) = \alpha_0 + \alpha_1[\log(1 + i_f) - \log(1 + i_d)] + u \tag{7}$$

$$\log(Md / eMf) = \beta_0 + \beta_1 \log Y + \beta_2 i_f + \beta_3(i_f - i_d) + \varepsilon \tag{8}$$

*M*d and *M*f represent stocks of domestic and foreign money balances respectively, e is the exchange rate (domestic currency per unit of foreign currency), while i_f and i_d are foreign and domestic interest rates. *Y* is domestic real income. Consequently, α_1 represents the degree of currency substitution while β_2 is the coefficient that measures the cross elasticity of demand for domestic money (Joines, 1985).

In the portfolio balance model the division between money and bonds is not as clear as assumed by the money service approach. Here, money is held for precautionary purposes Agents allocate their wealth in four assets – domestic currency, domestic bonds, foreign currency and foreign bonds. According to the specification below, equation (9), money demand depends on the assets' rate of return, income and wealth.

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[5] This is the so called asymmetric case discussed by Joines (1985).

$$M = f(r, r_f + x, r_m - \Pi, r_{mf} - \Pi_f, PY) \qquad (9)$$

where M is demand for domestic money, r_m is the own rate on money, x is expected depreciation of the domestic exchange rate and Π is inflation rate. The subscript f denotes foreign values. The first term included in the equation is the relative return on domestic bonds - it is given by the own rate on money minus the rate of interest on the bond. The relative return on foreign bonds is expressed by the domestic own rate less the rate of interest on the foreign bond plus the expected depreciation of the domestic currency. The third argument is the rate of return on domestic money which is the own rate less the expected domestic inflation rate. Finally, the rate of return on foreign money is given by the own rate minus the rate of foreign inflation. If the own rates on money are the same in the two countries ($r_m = r_{mf}$), the rate of return on domestic and foreign money is measured by the inflation differential between the two currencies ($\Pi - \Pi_f$). If the purchasing power parity holds then the latter expression equals the rate of depreciation of the domestic currency, x. PY denotes the home currency value of domestic output and affects the demand for all assets positively (Mizen and Pentecost, 1994). The equation above can be rewritten as follows:

$$M = f(r, r_f + x, x, PY) \qquad (10)$$

All four assets are substitutes in the portfolio and an increase in the return on domestic bonds raises the demand for domestic bonds but lowers the demand for their substitutes in the portfolio. Consequently, an increase in the expected rate of depreciation leads to a rise in the demand for foreign money and a fall in the demand for all other assets. However, Cuddington argues that an increase in x also influences the return on foreign bonds $(r_f + x)$. So the result of an increase in the expected rate of depreciation is higher demand for both foreign currency and foreign assets. Most studies usually put foreign money and assets together and regard it as a single variable of interest (Cuddington, 1983).

In the empirical specification suggested by Cuddington the degree of currency substitution is measured by the coefficient on x. A negative sign indicates currency substitution since as depreciation increases (the value of domestic currency is falling relative to foreign currency) individuals prefer to hold more foreign than domestic money balances. The coefficient on $(r_f + x)$ measures capital mobility.

$$\log(Md / Pd) = \beta_0 + \beta_1 \log y + \beta_2 r + \beta_3 (r_f + x) + \beta_4 x + \varepsilon \qquad (11)$$

If β_4 is negative and significant then there is evidence of currency substitution. The effect of capital mobility on money demand is reflected by the coefficient β_3 ($\beta_3 < 0$). Thus the model distinguishes between currency and asset substitution. A possible shortcoming of the model is multicollinearity - in cases where there is high capital mobility r and $(r_f + x)$ are likely to be highly correlated (Cuddington, 1983).

It is believed that in centrally planned economies, money yields mainly liquidity services. This is attributed to the underdevelopment of financial markets which does not permit easy purchases and sales of financial assets by individuals. The transformation of illiquid assets into money is accompanied by huge transaction costs. As a result, money demand is

dominated by the transaction motive leaving a small role for portfolio considerations (Giovannini and Turtelboom, 1993). However, in some countries foreign money plays an important role as a store of value. Domestic-currency denominated deposits have low expected returns due to high inflation and agents prefer to hold foreign deposits as a store of value. Therefore, some models of currency substitution applied to transition countries include both portfolio and transaction arguments. Examples will be discussed next.

3.2. Empirical evidence.

Little work on currency substitution has been done about countries in Central and Southeast Europe. I will discuss some of the empirical evidence of currency substitution in transition countries. Also I refer to few other studies that use, test and challenge existing theoretical models. As I consider trade an additional motive driving currency substitution I pay special attention to studies that address the issue. Table 1 presents a summary of the empirical evidence discussed here.

Miles estimates Canadian money demand and finds evidence for the presence of currency substitution. He assumes that domestic and foreign money balances are inputs in a production function that yields monetary services. Domestic and foreign interest rate differential, representing the relative opportunity costs of holding moneys is the explanatory variable that Miles includes in the regression. He estimates a currency substitution coefficient of 5.43 (Table 1) thus rejecting the hypothesis that foreign and domestic currencies are not substitutes (Miles, 1978). Bordo and Choudri challenge his findings and re-estimate Canadian money demand. They employ Miles's approach but arrive at a different conclusion. First they estimate Canadian money demand using M1 and M2 definitions of money and try to measure the effect of exchange rate appreciation. In most cases it is insignificant, providing no evidence of currency substitution. Then they examine Miles's model but include domestic real income and foreign interest rate as a separate variable in the regression. Bordo and Choudri find no evidence of currency substitution suggesting that Miles's model is incorrectly specified. This is due to the omission of real income and foreign interest rate from the regression which makes the coefficient on of the interest rate differential biased (Bordo and Choudri, 1982).

Joines measures income velocity for seven countries and finds that the elasticity of substitution is significant only for two of them, Canada being one. Table 1 gives the estimated coefficients for Canada. They are positive but smaller than those reported by Miles. Joines findings are in line with the evidence provided by Miles for Canada but he refrains from statements about destabilizing money demand. A high elasticity of currency substitution can destabilize domestic money demand only if domestic residents hold large amounts of foreign money (Joines, 1985).

Cuddington provides new empirical evidence of currency substitution by applying his portfolio model. He estimates quarterly money demand functions for several countries – Canada, UK, US and Germany. The results provide evidence for currency substitution only in the case of German M3 (see Table 1). High capital mobility is found in Canada, Germany and perhaps the US, but not in the UK. Results should be interpreted with care due to the problem with collinearity between rates of return variables (Cuddington, 1983).

Another important work is that of Bergstrand and Bundt. They contribute to the development of the money service model and find evidence of the presence of currency substitution within

several major industrialized countries. They estimate foreign demand for real home money functions, where the US is the home country. The results give little evidence of dynamic short-run currency substitution, but in the long run currency substitution is an important factor influencing monetary policy (Bergstrand and Bundt, 1990).

Mizzen and Pentecost employ both the money service approach studied by Bergstrand and Bundt and the portfolio model developed by Cuddington to estimate the demand for sterling in Europe. Both models provide little evidence of currency substitution (Mizen and Pentecost, 1994).

Similarly, Seitz and Reimers examine the demand for German marks and its implications for monetary targeting. The focus is on broad monetary aggregate (M3) to emphasize the store of value and speculative motive for holding foreign currency. Currency substitution effects are analysed with respect to the main European currencies and in most cases there is no evidence for their presence. The only exception is Italy where interest rate changes affect German M3. As a whole the functioning of DM as an anchor currency in the ERM will not be affected by currency substitution relative to Germany (Seitz and Reimers, 1999).

Milner, Mizen and Pentecost give new insight on the study of currency substitution by analysing the effect of trade on foreign holdings of domestic currency. They form a panel of 17 OECD countries over the period 1976-1995. Besides speculative and precautionary motives trade is another reason for foreigners to hold domestic currency. The estimated model is after Bergstrand and Bundt and the results provide evidence that in the short run holdings of domestic currency by foreigners are influenced by trade. However in the long run, it is not the case since foreign holdings of domestic currency are matched by trade and equilibrium is restored. In the short-run foreigners accumulate domestic currency (positive trade coefficient) but in the long-run they do not accumulate domestic currency (negative trade coefficient) (Milner, Mizen and Pentecost, 2000).

Ratti and Jeong also consider trade in the estimation of currency substitution. However, their work places the emphasis on the effect of real exchange rate variations. The estimated coefficients suggest that a rise in the real exchange rate (depreciation of domestic currency) leads to an increase in the holdings of foreign money balances relative to domestic money balances[6]. Foreign money balances are used mainly to finance imports, therefore a rise in imports leads to an increase in the foreign currency demanded. An increase in the opportunity cost of holding foreign money (foreign interest rate) leads to an increase in the demand for domestic money balances (Ratti and Jeong, 1994).

A good summary on the degree of dollarisation in transition economies is done by Sahay and Vegh. They examine 15 transition economies – 9 Central and Eastern European countries, 5 former republics of the Soviet Union and Mongolia. The 15 transition countries are divided in few groups according to some shared characteristics. Bulgaria is in a group with Romania and Albania since all experienced significant economic imbalances at the start of transition. Data show that dollarisation is very important, especially for countries with high inflation and regulations on interest rates that make real returns on domestic currency deposits unattractive to the public (Sahay and Vegh, 1992).

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[6] Foreign money balances are valued in terms of their purchasing power over foreign goods.

Mulligan and Nijsse examine the phenomenon of currency substitution in Poland, Hungary, Bulgaria and Romania during the period 1986-1994. The currency substitution model includes both transaction and portfolio model arguments. A shortage variable which illustrates the shifts in regimes from centrally planned economy to capitalism is also included. Domestic consumption, inflation, the black market exchange rate and shortage explain the demand for domestic currency. The shortage variable turns out to be of particular significance in explaining the demand for foreign currency for all the countries. Modeling black markets is also very important for analyzing money demand in transition economies. In Bulgaria and Romania black markets were not well developed. Therefore, foreign currency played mainly a store-of-value role and foreign currency holdings increased with inflation. In contrast, in Poland and Hungary black markets were well established and the transaction motive predominated. Foreign currency holdings decreased in response to high inflation as agents tried to maintain steady consumption patterns through increased black market transactions. The results for Bulgaria are displayed in Table 1. Though insignificant the inflation coefficient is positive confirming the statements above (Mulligan and Nijsse, 2001).

The Czech Republic alone is the focus of the study by Komarek and Melecky. Their study employs the portfolio model and finds evidence for the presence of currency substitution within the domestic banking system. When estimating M2 money demand the two bilateral exchange rates CZK/USD and CZK/DEM play a major role in providing evidence of currency substitution. Using the ratio of foreign-currency to domestic-currency deposit stocks as a dependent variable also produces results supporting the presence of currency substitution in the Czech economy. The estimated interest rate coefficient has the opposite sign than expected. It is a measure of the cost of financing. As the cost of financing goes up agents find alternative funds by borrowing on the foreign financial market thus leading to an increase in foreign deposits in the domestic country (Komarek and Melecky, 2003).

A study on the Kyrgyz republic by Mongardini and Mueller emphasizes the ratchet effect of currency substitution – the irreversible use of foreign currency. They use two definitions of currency substitution and find out that the ratchet effect is present only in the allocation of deposits. There is no such effect in the broader currency substitution definition. Interest rate differential and depreciation of the exchange rate are significant determinants of the currency substitution process in the Kyrgyz economy. The same methodology is employed to analyse the persistence of currency substitution in Turkey (Vuslat Us, 2003). As in the case of the Kyrgyz republic the presence of a ratchet effect in the overall economy is not supported by evidence (see Table 1) (Mongardini and Mueller, 2000).

The work of Feige, Faulend, Šonje and Šošić on currency substitution in Croatia presents an interesting approach. They authors use two methods of measuring the amount of non-dollar foreign currency like the German mark that may circulate in some of the transition countries. The denomination displacement method claims that currency substitution leads to replacement of the high denomination notes of the domestic currency with high denomination foreign notes. The other method uses estimates of the demand function for foreign currency in countries that are heavily dollarised. Then these estimates are used to simulate the demand for non-dollar foreign currency holdings in countries that are believed to have the DM as a substitution currency (Feige *et al*, 2000).

To sum up, empirical evidence suggests that currency substitution is an important phenomenon in transition economies. For the USA, Canada and West-European countries this statement is disputable. Most of the works mention data availability as a significant obstacle

in estimating demand functions for South-East European countries. Still those studies shed light on important processes within the domestic economy and suggest possible ways for policymakers to influence the supply of foreign currency, e.g. through higher domestic real interest rates.

Table 1. Empirical literature.

Author, date	Dependent variable	Currency substitution measure	Currency substitution coefficient		Country
Miles, 1978	Ratio of domestic currency denominated cash balances to foreign currency denominated cash balances	Elasticity of substitution = interest rate differential	5.43***		Canada
Bordo & Choudri, 1982	Canadian demand for money using M1 and M2	Exchange rate effect	Insignificant		Canada
	Ratio of domestic money balances to foreign balances	Interest rate differential	Insignificant		
Cuddington, 1983	Money demand (M1 and M2 or M3)	Expected rate of depreciation of the domestic currency	-0.21** German M3		Canada, UK, US and Germany
Joines, 1985	Three income velocity measures with base money, M1 and M2 as the relevant money stock	Elasticity of substitution	Positive and significant only for two countries Base 0.382 M1 0.724 M2 0.306		Belgium, Canada, France, Germany, Japan, Netherlands, UK
Bergstrand and Bundt, 1990	Foreign demand for real home money	Interest rate effect	**SR** Insign, wrong sign	**LR** Sign; anticipated signs	Canada, Italy, Japan, UK, Switzerland and West Germany
Ratti and Jeong, 1994	Ratio of real holdings of domestic money balances relative to foreign money balances	Interest rate effect Exchange rate effect Trade effect	0.983** -1.599** 0.901**		Canada
Milzen and Pentecost, 1994	Real stock of sterlings (B&B) Real M1 (Cuddington)	Interest rate Interest rate Expected depreciation	Insign. Insign. Insign.		Germany, France, Belgium, Netherlands, Italy, Denmark, Eire
Seitz and Reimers, 1999	Domestic money stock (M3)	Exchange rate effect Interest rate effect	Significant only for Italy		EU countries

			SR	LR	
Milner, Mizen and Pentecost, 2000	Non-bank foreign residents holdings of real money balances held in UK	Trade volume effect Interest rate effect	0.57*** 0.001 [7]	-0.8** -0.011**	USA, Canada, main European countries, Japan and Australia
Mongardini and Mueller, 2000	Ratio of foreign deposits to total deposits in the domestic banking system	Interest rate effect	0.561***		Kyrgyz Republic
		Exchange rate effect	-9.796***		
		Ratchet effect	0.725***		
	Ratio of foreign currency deposits and cash to broad money plus foreign cash	Interest rate effect	0.904***		
		Exchange rate effect	-11.949***		
		Ratchet effect	-5.098		
Mulligan and Nijsse, 2001	Foreign currency deposits	Inflation Shortage Exchange rate	0.160 -0.392** 1.087**		Bulgaria, Hungary, Poland and Romania

			1st period	2nd p.	
Vuslat Us [8], 2003	Ratio of foreign exchange-denominated deposits to M1	Interest rate effect	0.00	0.02***	Turkey
		Exchange rate effect	32.44	18.2***	
		Ratchet effect	0.62**	1.61***	
	Ratio of foreign exchange-denominated deposits to total deposits	Interest rate effect	0.02**	-0.01**	
		Exchange rate effect	-0.74	5.97	
		Ratchet effect	0.50**	-0.11**	
Komarek, L., and M. Melecky, 2003	M2 monetary aggregate adjusted for deposits in foreign currency	Exchange rate effect Interest rate	-0.34*** USD -0.62** DM -0.012***		Czech Republic
	Ratio of foreign-currency to domestic-currency deposit stocks	Interest rate effect Exchange rate effect	0.04*** 0.74*** USD		

* indicates a significance level of 90%
** indicates a significance level of 95%
*** indicates a significance level of 99%

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[7] Results are based on the fully specified model – Table II, equation 1[a]. Short- and Long-run coefficients are reported from Table III, p. 210-11.
[8] Two periods are considered: 1990-93 and 1995-99. The crisis year 1994 is not included in order to compare pre- and post-crisis periods.

4. CURRENCY SUBSTITUTION IN BULGARIA – THE POLITICAL AND ECONOMIC BACKGROUND.

Currency substitution has accompanied many East European Countries and Former Soviet Union Republics during the period of reform of their centrally planned economies. The cause, effect and degree of the phenomenon depended on many factors – pace and quality of reforms, institutional framework, etc. The experience of Bulgaria resembles that of other transition countries but also has its own peculiarities. Along with many other transition countries (Romania, Albania, former Yugoslavia, former Soviet Union countries, etc) Bulgaria suffered from high inflation but unlike Croatia and Slovenia, for example, which started reforms rather early, Bulgaria was a late reformer. Hungary and former Czechoslovakia managed to keep their inflation levels under control and carried out their market oriented reforms quickly and successfully. In contrast, reforms in Bulgaria were carried out slowly and with dubious success.

Bulgaria started the long way of transition to market economy in the early 90s. The country was a centrally planned economy with high controls on prices, foreign exchange and the banking system. Individuals were not allowed to hold foreign currency and the usual way foreign currencies were supplied was by smuggling. The only legal way to get foreign money was to provide the authorities with a proof that the person will need foreign cash for a trip abroad. Even in this case there were limits on the amount that can be exchanged. After liberalization the amount of foreign currency holdings increased significantly. In 1991 the Foreign Currency Regulation law adopted in 1966 was amended. The Bulgarian lev became convertible for current account transactions. One of the main limitations that remained was related to the right of Bulgarian citizens to buy foreign currency for tourist purposes. Although the legally allowed amount of foreign currency held by domestic residents was increased to 2000 USD it was still controlled (Foreign Currency Regulation Law, SG 83/1999). In practice, it was relatively easy to circumvent this regulation.

An interesting characteristic of transition economies that applies also to Bulgaria is that the total currency-to-deposit ratio has increased during the first years of reforms. This is the so called "money under the mattress" phenomenon that reflects the low trust in the banking system, low rates on domestic deposits and the underdevelopment of financial markets. Both currency substitution and the increased ratio of domestic currency relative to domestic deposits reflect the unwillingness of people to hold domestic-currency deposits.

Black markets in several consumer goods, mainly durables (flats, cars, foreign currency, etc) emerged. The trust in the banking sector and the institutions as a whole was low. Seven governments changed in office during the period from 1990 to 1997. Politicians could not carry out the promised reforms and stabilize the weakened economy. Commercial banks would give credit to unprofitable state companies and rely on the Central Bank to bail them out[9]. Direct financing of budget deficits by the Central Bank were common. The so called "pyramids" emerged and lots of households lost their savings[10]. Privatization started quite late – in the end of 1995 and was not carried out very successfully. Corruption was widespread.

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[9] This argument can be related to Kornai's soft budget constraint theory - a legacy from central planning (Kornai, 1986).

[10] Lots of people were deceived by the "pyramids". Those were financial intermediaries offering very high rates of return on money thus attracting personal savings. However, the money was used for illegal operations and could not be withdrawn.

As a result individuals started to chose to hold foreign currency instead of domestic. For example, in 1986 the foreign currency holdings as a percentage of total money (M2) was 5% but in 1994 the ratio jumped to more than 34% (Mulligan, R. F. and E. Nijsse, 2001). Inflation was increasing and domestic currency depreciated and. Table 2 presents data on inflation rates, GDP growth, short term interest rate and inflation tax in Bulgaria for the period 1991 – 2001. High inflation rates, low rates of economic growth and high levels of inflation tax continue till 1997. Figure 1 plots inflation against GDP growth. Inflation rates reached their peak values in 1996 and 1997 when the number soared to about 548%. At the same time GDP made a huge drop (-11% in 1996 and -7% in 1997). Using high nominal interest rates (300% in 1996 and about 210% in 1997) to influence inflation expectations was perceived by the public as a signal for even higher inflation and depreciation in the future. Naturally, people preferred to substitute foreign for domestic currency.

Table 2. Inflation, GDP growth, interest rate and inflation tax in Bulgaria (1991-2001)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Inflation (%)	473.9	79.5	63.8	122.0	32.7	311.6	547.7	1.6	6.9	11.3	4.8
GDP growth (%)	-11.7	-7.3	-1.5	1.8	2.1	-10.9	-6.9	3.5	2.4	5.8	4.0
Short-term interest rate (%)	n/a	n/a	n/a	n/a	79.8	300.2	209.8	14.1	13.5	12.2	11.7
Inflation tax (% of GDP)	12.2	6.6	4.0	5.3	1.8	10.6	10.5	0.2	0.7	1.1	0.6

Source: BNB and NSI
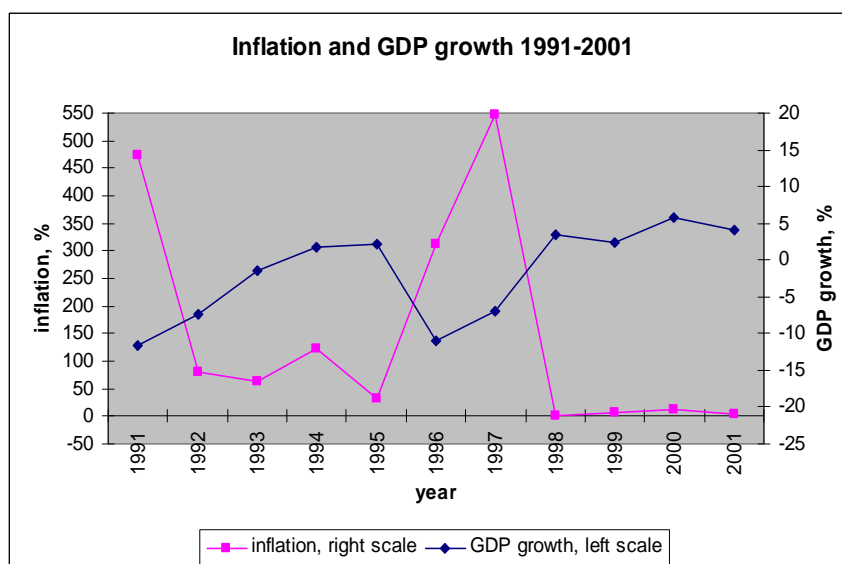
Figure 1. Inflation and GDP growth 1991-2001

Source: BNB and NSI

Figure 2 shows the degree of currency substitution[11] and depreciation rates for the period 1991-2001. At the start of reforms (1991) currency substitution is quite significant – above

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[11] The ambiguity of the concept currency substitution will be dealt with further on in the paper. The graph estimates currency substitution as the ratio of foreign currency deposits to total deposits in the domestic banking system.

40%. This is attributed to the lifting of restrictions on foreign currency holdings. Inflation is high – freeing prices after the end of communism lead to huge price increase in the first years of reforms. Up to the beginning of 1994 the amount of foreign currency deposits relative to total deposits in the domestic banking system is decreasing and is about 20%. In 1994, however, due to unsuccessful attempts to restrain inflation, currency substitution goes up and reaches a value of about 35%. The next big jump is at the end of 1996-beginning of 1997 when inflation rates are soaring and currency substitution is almost 80%. High levels of depreciation lead to currency substitution which limits the ability of the monetary authorities to control money supply and inflation. Seigniorage income goes down but monetary authorities still finance budget deficits by printing money and thus further increase inflation. Foreign currency demand continued to increase until Bulgaria adopted the currency board in the end of 1997 and pegged the lev to the German mark (to the euro in 1999). This event brought about stabilization of the exchange rate, low inflation rates and more confidence in the banking system. Although the levels of inflation and depreciation decreased significantly after 1997 the rate of currency substitution did not undergo such a major drop – it went down to about 50 % and remained constant overtime, reflecting the irreversible effects of long periods of macroeconomic instability [12].
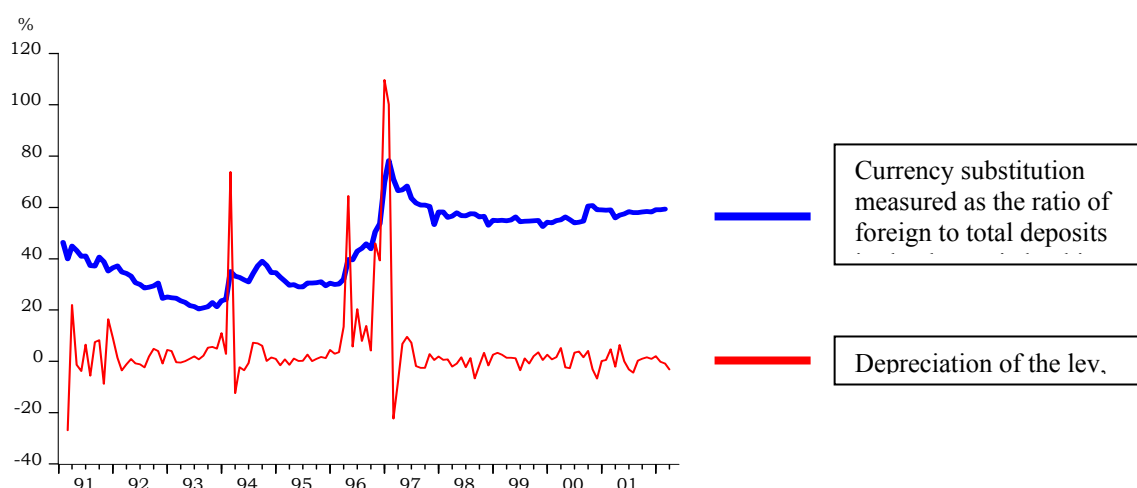
Figure 2. Currency substitution and depreciation levels 1991-2001

Source: M. Zaimov and K. Hristov, 2002

To summarize, the swift changes of governments and economic instability made currency substitution an important phenomenon in Bulgaria. High inflation coupled with slow reforms as well as low public trust and corruption caused the amount of foreign currency cash and deposits in Bulgaria to increase. The government could not control money supply and attempts to contain inflation levels failed. A step to stabilize the economy was taken in 1997 when the currency board was introduced and the lev was tied to the German mark. Similar arrangements existed already in Estonia and Lithuania.

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[12] The phenomenon of high levels of currency substitution even in the face of falling inflation rates is usually referred to as "hysteresis".

5. THE MODEL.

I will investigate empirically the determinants of currency substitution using monthly data for Bulgaria for the period December 1991 - July 1997. At that time the lev was freely floating against the dollar. I use a model after Ratti and Jeong. Agents maximize a utility function subject to a money service resource constraint. The level of money services, m* depends upon the levels of domestic and foreign money balances given by the equation:

$$m^* = m^*(Md/Pd, Mf/Pf, \varphi) \qquad\qquad m_1, m_2 > 0 \qquad (12)$$

where $M_l P$ is real holdings of money and φ represents the factors influencing the choice of the relative money holdings, e.g. trade. Subscripts d and f denote domestic and foreign values. There are four types of assets: domestic and foreign bonds, domestic and foreign money. After maximizing the consumer utility function subject to the portfolio constraint Ratti and Jeong arrive at the following relationship:

$$\frac{m_1^*(Md/Pd, Mf/Pf, \varphi)}{m_2^*(Md/Pd, Mf/Pf, \varphi)} = \frac{Pd/S}{Pf}\frac{r_d}{r_f(1+\varepsilon)} \qquad (13)$$

where ε is the expected rate of depreciation of domestic currency and r is interest rate on bonds. The marginal rate of substitution between the two currencies equals the ratio of the opportunity costs of holding domestic currency rather than domestic bonds to the opportunity cost of holding foreign money rather than foreign bonds (Ratti and Jeong, 1994).

Let's turn to Miles to compare his money service model with the version of Ratti and Jeong. The money service production function suggested by Miles is of the form:

$$m^* = \left[\alpha_1\left(\frac{Md}{Pd}\right)^{-\rho} + \alpha_2\left(\frac{Mf}{Pf}\right)^{-\rho}\right]^{-(1/\rho)} \qquad (14)$$

where α_1 and α_2 are the weights linked to the efficiency of domestic and foreign money in producing money services. The factors captured in φ are not reflected in the above specification. Therefore, the coefficients α_1 and α_2 might depend upon other variables influencing the holdings of foreign currency, e.g. real exchange rate and bilateral exports and imports. The estimated equation suggested by Ratti and Jeong is of the form:

$$\log\left(\frac{Md}{sMf}\right)_t = \gamma_0 + \gamma_1 \log\left[\left(\frac{rf}{rd}\right)(1+\varepsilon)\right]_t + \gamma_2 \log\left(s\frac{Pf}{Pd}\right)_t + \gamma_3 \log(E/I)_t + \mu_t \qquad (15)$$

The first term in the equation represents the uncovered interest rate parity condition, the second is real exchange rate and the last term captures the effect of trade on foreign currency holdings. Table 3 presents the variables included in the regression and the apriori expectations related to their sign. If people hold foreign balances mainly due to transaction purposes then an increase of the foreign rate of return represents a higher opportunity cost of holding foreign money. Therefore, agents will switch to domestic money balances and $\gamma_1 > 0$. However, if foreign money is held not to facilitate everyday transactions but to make use of an attractive investment opportunity in the future then the speculative motive is operating. In this case a

rise in foreign rates of return makes foreign assets more preferable to domestic-currency denominated assets and the sign of γ_1 will be negative.

My expectations regarding the sign of the coefficient on the real exchange variable are: $\gamma_2 < 0$. An increase in the exchange rate (depreciation of the domestic currency) will lead to increased holding of foreign currency - the lev loses its value and Bulgarians switch to foreign money. If the theory of purchasing power parity holds then the coefficient γ_2 will be insignificant. The other variable of interest – trade - measures volume effect and its coefficient is expected to be positive. As Bulgarian imports increase people will chose to hold more foreign currency since imports are usually invoiced in the currency of the seller. Since the dollar is a major invoicing currency and the US is a major trading partner of Bulgaria I use the ratio of total exports to total imports instead of bilateral trade with the US in the regression. The real exchange rate variable is constructed using Bulgarian and US consumer price indices. It should be taken into account that the consumer price index (Ratti and Jeong, 1994)[13] includes not only prices of tradable goods but also of non-tradables thus being an imperfect measure of price level. All data is taken from Bulgarian National Bank (BNB) and IMF International Financial Statistics. Since data for E/I from December 1991 to January 1995 was available only quarterly it was transformed into monthly series using the US index of industrial production. Trade data for the period January 1995 till the end of the sample is available monthly from the BNB. To check whether the data exhibits seasonality I used a regression with 12 seasonal dummies. All of them turn to be statistically insignificant suggesting that there is no seasonal pattern in the behaviour of the series.

Table 3. Variables – expected signs.

Variable	Notation	Explanation	Expected sign
Md/SMf	M	Ratio of domestic money measured as M2, to foreign currency deposits held in Bulgarian banks. Observations are monthly values from December 91 to July 97.	Dependent variable
$(r_f/r_d)(1+\varepsilon)$	INTR	Interest rate ratio adjusted for exchange rate changes with r_f denoting US T-bill interest rate and r_d – Bulgarian T-bill rate. Observations are monthly values from December 91 to July 97.	-
SP_f/P_d	REXR	Real exchange rate constructed by the direct quote (domestic currency per unit of foreign currency) BG lev exchange rate with the US dollar and the ratio of US price index to the Bulgarian consumer price index. Observations are monthly values from December 91 to July 97 in index form (1995=100)	-
E/I	T	Ratio of Bulgarian total exports to total imports. Observations are monthly values from December 91 to July 97.	+

The model I will use to estimate currency substitution in Bulgaria is similar to the one developed by Miles, but Ratti and Jeong augment it with few other relevant variables – real exchange variable which represents the transaction motive for substitution and the ratio exports to imports that serves to measure the volume effect.

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[13] Ratti and Jeong estimate two regressions – one with CPI and one using unit labour cost for manufacturing as indicators of the price level. They argue that unit labour cost is not a perfect measure of the real exchange rate either since it is too narrow. It does not include the prices of many traded goods including services.

6. THE ECONOMETRIC METHODOLOGY AND ESTIMATION RESULTS.

In the following section I will describe the econometric procedures and techniques performed when estimating the money demand equation. I will discuss the final results that were obtained and draw some inference about the currency substitution phenomenon in Bulgaria in the period after reforms till the introduction of the currency board.

I estimate the following semi-log model:

$$M_t = \alpha_0 + \alpha_1 LRRATIO_t + \alpha_2 LREXR_t + \alpha_3 T_t + u_t \qquad (16)$$

First, I will shortly describe the variables included in the model. According to Figure 3 the ratio of foreign currency deposits to Bulgarian M2 shows a decreasing trend over the sample from December 1991 until June 1997. It is at its peak in the beginning of the period (December 1992) and relatively stable till March 1994 when it starts going down. The ratio reached its minimum in the June 1997 – the last observation of the sample. The exports to imports ratio exhibits an upward trend and reaches its maximum value in February 1997. In the first half of the sample period (till the end of 1994) it is generally stable with small variation. The interest rate ratio also shows an increasing trend over the sample period. It hits its highest point in December 1996. The real exchange rate shows more complicated dynamics – there is a general downward trend with four crests. It reaches its maximum in January 1992 and its minimum in April 1997[14]. So, BM2/FCD and LREXR have a common positive trend while LINTR and T exhibit a downward tendency.

Next, I explore the properties of the time series data. To check for stationarity I consider few methods, since none of them can be given full credit if used independently. Those are: plotting the variables, examining the autocorrelations of each series and the Augmented Dickey-Fuller test. Figure 3 gives the plots of the series and Table 4 displays the results of the Augmented Dickey-Fuller (ADF) test for each time series in the model[15]. As it can be seen from the table the null hypothesis of a unit root can be rejected at the 5% level of significance only for the exchange rate variables i.e it is stationary. The other three series should be differenced once (DM, DLINTR and DT) to become stationary (Appendices 1 to 7). So, relative money balances, the interest rate differential and trade variables are I(1) (integrated of order one), while LREXR is an I(0) (integrated of order zero) variable.

Table 4. Augmented Dickey-Fuller Tests

Variable	Test statistics for ADF regression with no linear trend	Test statistics for ADF regression with a linear trend
M	-0.563	-2.1643
LINTR	-0.923	Trend not significant
LREXR	**-3.342****	Trend not significant
T	-0.810	-2.208
DLINR	-2.988**	Trend not significant
DM	-3.088**	Trend not significant
DT	-4.523**	-4.491**
**indicates 5% level of significance		

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[14] The M and T ratios are not logged since often they take values less than 1 and taking a natural log with increase instead of reduce the scale.

[15] The order of the ADF test is determined after running the equation:

$\Delta y_t = \alpha_0 + \gamma T + \beta y_{t-1} + \delta_1 \Delta y_{t-1} + ... + \delta_n \Delta y_{t-n} + u_t$, by hand, where T is a linear time trend, for each variable in the model and selecting the number of lags giving residuals free from autocorrelation (Gujarati, 2002).

The data plots reinforce this conclusion. The exchange rate series look stationary[16], while money demand, interest rate and trade series appear non-stationary. According to the autocorrelation plots as the lag length increases autocorrelations between current and lagged values of LREXR die away. For the variables M, LINTR and T autocorrelations are still huge even at relatively high lags. So, the different techniques applied provide evidence that the time-series included in the model are of different order of cointegration.

a) M = BM2/FCD
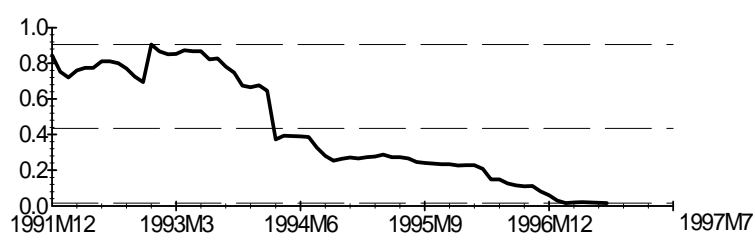
b) Real exchange rate
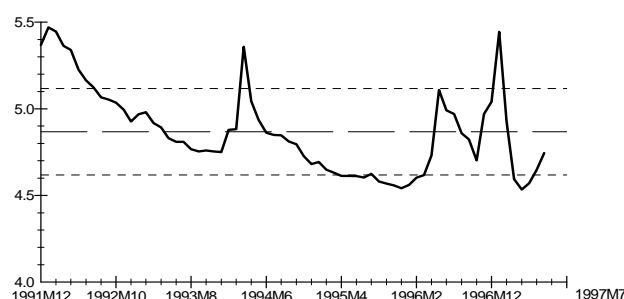
c) Interest rate ratio
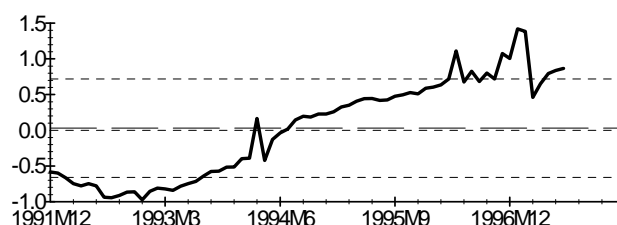
d) Trade
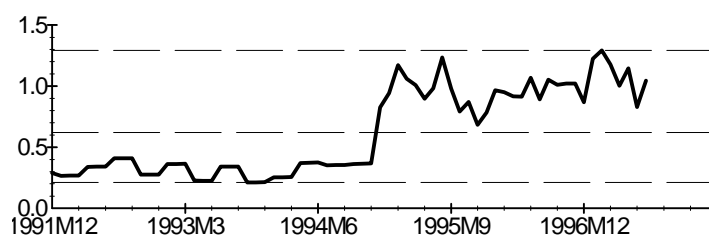
Figure 3. Plots of M, LREXR, LINTR and T[17]

An appropriate estimation procedure that can be used irregardless of whether the variables are I(1) or I(0) is the Auto Regressive Distributed Lag procedure (ARDL). The ARDL allows for

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[16] A series is stationary if over time it has the following characteristics: constant mean, constant variance and constant covariance between observations in similar periods, e.g. cov (Y1, Y3) = cov (Y2, Y4) = cov (Y3, Y5), etc. (Gujarati, 2002).

[17] Dotted lines indicate mean and standard deviations of the series

the estimation of an error correction model which integrates both the short-run dynamics and the long-run equilibrium[18] (Pesaran and Pesaran, 1997). If there is a model such as:

$$Y_t = \alpha_0 + \alpha_1 X1_t + \alpha_2 X2_t + \alpha_3 X3_t + e_t \tag{17}$$

where Y_t, $X1_t$, $X2_t$, $X3_t$ are three different time series; α_0, α_1, α_2 and α_3 are parameters and e is a stochastic error term, then the ARDL approximation is given by:

$$\Delta Y_t = \beta_0 + \beta_1 t + \sum_{i=1}^{p} \gamma_i \Delta Y_{t-i} + \sum_{i=1}^{p} \delta_i \Delta X1_{t-i} + \sum_{i=1}^{p} \varphi_i \Delta X2_{t-i} + \sum_{i=1}^{p} \varepsilon_i \Delta X3_{t-i} +$$

$$+ \lambda_1 Y_{t-1} + \lambda_2 X_{t-1} + \lambda_3 X2_{t-i} + \lambda_4 X3_{t-1} + u_t \tag{18}$$

where t is a time trend and β_0 is a constant term (Shrestha & Chowdhury, 2005).

First, it is necessary to test for the long-run significance of the explanatory variables by checking whether the coefficients λ_1, λ_2, λ_3 and λ_4 are jointly significant. The standard critical values for the F- and t-tests cannot be applied here. Therefore, Pesaran *et al* provide a table with the critical value bounds for the F- and t-statistic (on the lagged dependent variable) for testing the existence of a long-run relationship. If the calculated statistics is above the upper bound then the null hypothesis of no cointegration can be rejected, if it is below the lower bound value then the null cannot be rejected. Finally, if the calculated value falls between the lower and the upper bound the result is inconclusive. Provided that the results support the evidence for long-run significance of the explanatory variables we can estimated the long- and short-run coefficients as well as the error-correction mechanism. The appropriate number of lags is set according to the Akaike Information Criteria (AIC) or the Schwarz Bayesian Criterion (SBC) (Pesaran *et al*, 1999).

Before applying these procedures I include two dummy variables to model for the abnormal values of the variables included in the model. As mentioned earlier in the introduction, the political and economic situation in Bulgaria in the first few years after the fall of communism is rather unstable. The dummy variable DV92M12 is assigned for the last month of 1992 when the ratio Bulgarian money supply to foreign currency deposits is at its peak. This implies that the amount of foreign currency deposits is still not that high and the process of currency substitution does not play a major role. A look on the politics in the country in the end of 1992 reveals a complicated situation. The democratic government chosen in 1991 resigns after a vote of no confidence in the Parliament. The prime-minister Berov forms a government of "experts". Allegedly, the Berov government slows down the reforms and allows the so called new economic elite to be formed. This is accomplished through interference in the privatization process where profitable state companies become private property of former communists. A second dummy - DV2 is assigned for March, 1994 when the ratio of Bulgarian M2 to foreign currency deposits began to plummet.
So, the model I will try to estimate is of the form:

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[18] Other popular techniques for cointegration analysis include the Engle-Granger test and the Jonansen-Juselius test. To apply those methods the variables in the regression should be of equal order of integration

$$M_t = \alpha_0 + \gamma t + \alpha_1 LRRATIO_t + \alpha_2 LINTR_t + \alpha_3 T_t +$$
$$+ \alpha_4 DV92M12 + \alpha_5 DV94M3 + u_t \qquad (19)$$

It covers the period December, 1991 till June, 1997. According to the long-run significance test the variables are significant at the 5% level[19]. Table 5 and 6 present the short- and long-run results estimated using the ARDL procedure. The optimal lag length is determined by the Akaike information criteria. Around 70% of the variation in the dependent variable is explained by the model. The overall significance of the model is good (F-statistic = 4.3086 and p-value = 0.001). According to the diagnostic tests there is no evidence for problems with serial correlation, functional form, normality of errors and equality of error variances. The CUSUM and CUSUMSQ tests indicate structural stability.

Table 5. Error-correction representation for an ARDL(10, 9, 9, 10) model
Dependent variable: dM, Estimation Period: 1992M10 – 1997M7

Variable	Coefficient	t-value	Variable	Coefficient	t-value
dM1	0.844	3.924***	dLINTR3	0.231	1.652
dM2	0.558	2.5413**	dLINTR4	0.244	1.78*
dM3	0.412	1.989*	dLINTR5	0.06	0.363
dM4	0.775	3.713***	dLINTR6	0.006	0.036
dM5	0.514	2.536**	dLINTR7	-0.161	-1.018
dM6	0.728	3.67***	dLINTR8	-0.203	-1.813*
dM7	0.32	1.636	dT	0.027	0.427
dM8	0.518	3.133***	dT1	0.141	1.243
dM9	0.179	0.949	dT2	0.122	1.207
dLREXR	-0.091	-1.212	dT3	0.12	1.247
dLREXR1	0.211	2.542**	dT4	0.061	0.705
dLREXR2	-0.008	-0.1	dT5	0.033	0.442
dLREXR3	0.066	0.81	dT6	0.044	0.633
dLREXR4	0.105	1.307	dT7	-0.036	-0.49
dLREXR5	0.152	1.658	dT8	-0.003	-0.044
dLREXR6	0.139	1.033	dT9	0.102	1.599
dLREXR7	0.175	1.321	Constant	0.741	2.532**
dLREXR8	0.315	1.868*	Trend	0.008	2.016*
dLINTR	-0.166	-2.558**	DV92M12	0.162	3.546***
dLINTR1	0.342	1.987*	DV94M1	0.125	3.569***
dLINTR2	0.39	2.574**	**ECM(-1)**	**-0.99**	**-3.9109***

R-bar-squared = 0.699, AIC = 124.781, St. Error of regression = 0.027,
F-statistic = 4.30861[.001]
Serial correlation χ^2 (12) = 0.085 [.771]; Functional form χ^2 (1) = 0.837 [.360]
Normality χ^2 (2) = 2.982 [.225]; Heteroscedasticity χ^2 (1) = 1.418[.234]

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[19] F- statistic = 5.7488 [.007]. The critical value bounds at the 95% significance level for 3 variables, unrestricted intercept and unrestricted trend are F(4.01 5.07). Fstat. > Fcr.

t-statistics on the lagged dependent variable = -3.9109[.002]. Critical value bounds at the 90% significance level are t(-3.13 -3.84). t-stats > t crit. (Pesaran *et al*, 1999)

The short-run coefficients on the lagged dependent variable are positive and mostly significant. So, increasing past values of the BM2/FCD ratio imply higher current values. Almost all the coefficients on the change in the real exchange rate are insignificant at all levels of significance. Only the second and last differences are positive and significant. The poor insignificance of dLREXR suggests that exchange rate expectations are adaptive – past values influence current ones. That is why depreciation of the lev with respect to the US dollar in the past will make people expect further depreciation in the future. An increase in the rate of change of the real exchange rate (depreciation) will lead to higher growth of foreign currency deposits with respect to domestic money in the economy. Those results confirm the initial assumptions that depreciation of the domestic currency makes agents switch to foreign currency.

Also a rise in the foreign price level requires an increase in the FCD in order to maintain purchasing power parity over foreign goods. However, the short-run coefficient on the change in exports relative to imports is insignificant at all levels of significance, suggesting that currency substitution is not due to trade volume i.e agents do not hold foreign balances to pay for imports.

The coefficients on the change in the relative interest rate are more difficult to analyse. The first difference has a negative coefficient significant at the 5% level which suggests that a rise in foreign interest rates leads to higher growth of foreign currency deposits with respect to Bulgarian M2. This confirms the speculative motive since a higher real return on foreign deposits makes them preferable to domestic deposits. Some of the lagged values of the change in the interest rate ratio are positive but they are significant only at the 10% level suggesting that money demand for transaction purposes does not occur. The coefficient on the error correction term is highly significant reflecting the joint significance of the long-run coefficients. A value of -0.99 indicates that the ratio BM2/FCD is above its long-term value. The adjustment process is rather quick and takes place in the next period.

Table 6: Estimated Long-run Coefficients
     ARDL(10,9,9,10)

Variable	Coefficient	t-value
LREXR	-0.101	-1.75
LINTR	-0.573	-6.643***
T	-0.123	-0.769
Constant	0.747	2.207**
DV92M12	0.164	2.242**
DV94M1	0.126	2.928**
Trend	0.008	2.518**

In the long-run the main determinant of currency substitution is the interest rate differential between foreign and domestic T-bill rates (Table 6). The coefficient on the uncovered interest rate parity term is negative and highly significant. Both the trade and real exchange rate variables are insignificant indicating that currency substitution is not due to trade-transaction volume. Therefore, results provide evidence that the main motive driving currency substitution is speculative investment. As the interest rate differential between foreign and domestic rates increases agents prefer to hold more foreign currency denominated deposits. The latter are more attractive because they yield higher return. Agents do not hold foreign money to pay for their purchases. Of course the use of dollars as a co-circulating currency in Bulgaria is not allowed by law, but black market operations are extensively carried out in foreign currency. Unfortunately it is difficult to track illegal transactions and include them in

the data on foreign currency balances. Obviously, this is one of the shortcomings of the estimated model – it does not use comprehensive data on the amount of dollars circulating in the domestic economy. So, there might be a significant transaction motive driving black market operations. But my model estimated with the available data does not provide evidence for the existence of currency substitution for transaction purposes in the Bulgarian economy.

Some of the studies on currency substitution for transition countries mentioned in the empirical part arrive at similar results. Komarek & Melecky (Czech Republic), Mongardini & Mueller (Kyrgyz republic) and Vuslat Us (Turkey) emphasize the significance of the interest rate variable though using different models and estimation techniques. The study on the Kyrgyz republic, for example, reports that 104% of the movements in the currency substitution ratio are explained by the interest rate differential, while exchange rate variations have a much smaller impact (Mongardini & Mueller, 2000, p. 235, Table 4).

To summarize, the econometric results provide evidence that the interest rate ratio is the most important variable explaining the variation in the Bulgarian M2 to foreign currency deposits ratio. So, speculative investment dominates the use of foreign currency for transaction purposes. Depreciation of the domestic currency ε increases the real return $r_f(1+\varepsilon)$ to foreign-currency denominated assets thus making them more attractive. With the introduction of the currency board inflation is contained, depreciation stops and the source for speculation is eliminated. The real exchange rate, though significant in the short-run is not influential in the long-run. Of course the results should be treated with care due to possible shortcomings of the model - related to the absence of reliable data on foreign cash circulating the domestic economy.

7. CONCLUSIONS.

I have estimated a model that explains a significant amount of foreign currency holdings (mainly dollars) held by Bulgarians in the period of reform. The speculative motive for substitution appears to be significant while currency substitution for transaction purposes does not seem to take place. Trade volume does not influence foreign currency holdings of domestic citizens providing supportive evidence for the low importance of the transactions motive. In this respect there is scope for monetary policy – a high real rate of return will make domestic currency denominated deposits more attractive. However, if such an interest rate policy is accompanied by huge financial deficits it may lead to even higher inflation and funding crisis as was the case in Brazil (Sahay and Vegh, 1992). Also persistently high levels of foreign currency holdings (suggested by the sign and significance of the lags on the dependent variable) would require consistent policy to convince the people to switch to domestic currency in the long-run. That is why:

> "...a move towards a greater use of domestic-currency denominated assets
> will be welcome if it reflects sound financial and fiscal policies"
> (Sahay&Vegh, 1992, p.219)

The currency board introduced in 1997, had an overall stabilization effect on the economy: it brought about GDP growth, decreased inflation rates, contained the depreciation of the lev and made financing budget deficits by printing money impossible. The amount of foreign currency in the economy went down but remained significant (see Figure 2) suggesting that

the extended use of foreign currency is also a natural result of financial liberalization and a good opportunity for portfolio diversification. The stabilization role of the currency board is important also in relation to the entry of Bulgaria in the European Union in January, 2007. It is suggested also that the peg of the lev to the euro will facilitate the switch from domestic money to euros in the future. Of course, the introduction of the Euro in Bulgaria will not happen soon – not until the country proves to be on the right track of adequate reform and economic stability.

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COORDINATION OF DEVELOPMENT POLICIES TOWARDS AN INTEGRATIVE REGIONAL DEVELOPMENT POLICY[1]

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1. INTRODUCTION

In this research it is argued that regional and local development problems occur due to the lack of coordination between the various levels of government as well as lacking communication between the different institutions and agencies dealing with different development sectors or domains. Coordination and communication problems create difficult environments for policy implementation, but also growing opportunities for political manipulation, non-transparent decision making, even opportunism and corruption. There is also a lack of understanding internal hierarchies within governmental institutions, as well as external influences and barriers to regional and local decision making and implementation of development actions.

Coordination is an invisible systemic management function and therefore a complex development management issue. Policy coordination occurs horizontally between sectors on national, as well as on regional and local level. Horizontal policy coordination becomes more and more important with the rising understanding of the concept of sustainable development, which represents the fundament of integrative regional development policy. Accordingly, the concept of sustainable development treats the three dimensions - i.e. economic, social and environmental - as equal elements of one development, which occurs in a particular space and is characterized by differences in time horizons of its elements. Another integrated dimension is institutional development. In line with this dimension, vertical policy coordination links the different levels of government and is therefore linked to multilevel governance, decentralization, as well as bottom-up and top-down relations and inter-linkages. The main actors of the complex triangular relations within the internal triangulated development system are politicians, public administration and the private sector including citizens (arrows at the bottom of the triangle) with formal and informal institutional elements. There are also external factors that influence such a system, e.g. international policies and regulations. The conceptual idea of building a coordination model that integrates horizontal and vertical relationships into an integrated systemic picture with its internal and external institutional dimensions is presented in Figure 1.

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[1] Only main concepts and findings from the Doctoral thesis (originally written in Croatian) are briefly presented here in English that was defended at the University of Split, Faculty of Economics Split, in December 2005.

In order to develop the "regional development policy coordination model", it was necessary to review, besides contemporary approaches to regional development theory and practice, also institutional and organizational theories, as well as planning theory and practice. In particular, since coordination is a management function and participatory strategic planning is nowadays frequently used in elaborating public policies, programs and projects, especially within the European Union (EU), this approach is used as a practical basis for the development of the conceptual coordination model.
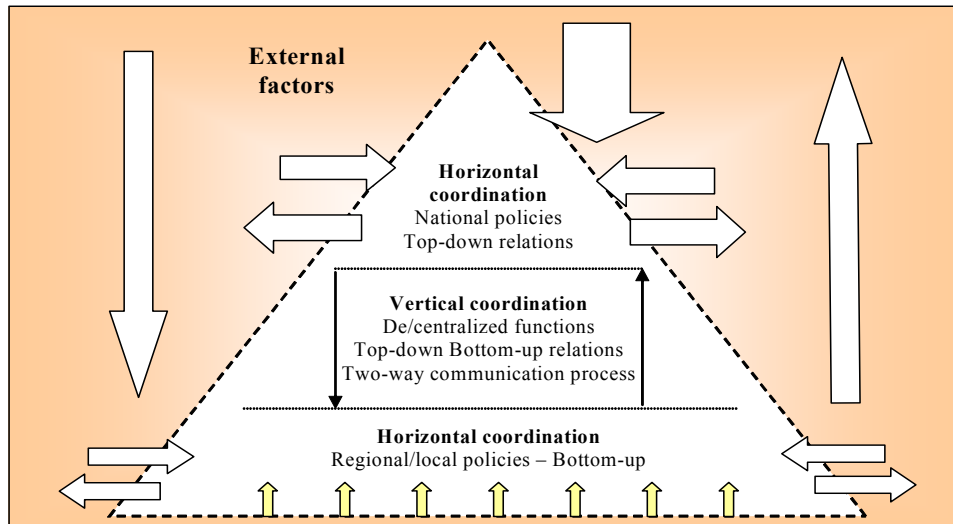
Figure 1.   Concept of the Coordination Model

2. WHAT IS COORDINATION AND WHY IS IT IMPORTANT FOR REGIONAL DEVELOPMENT?

2.1. Coordination and Regional Development Management

When analyzing the inter-institutional relations between the different tiers of government, the regional level can be considered as the most interesting level with regard to the problem of coordination, because it is the middle tier of governance on which the most intensive communication towards the national and local level are going on. To better understand what regional policy represents today and to conceptualize it in the future, interesting insights derive from reviews of what regional policy represented in the past. It is also necessary to understand global changes in the world and their impacts on the way, and how development decisions are made today. Regional policy flourished throughout the famous the 30-year period or golden era after WWII (Dunford, 1995). This status changed after the fall of the golden era, since the entire world order has changed, i.e. modes and places of production, which has directly influenced the need to change perspectives with regard to economic and general development policy. Though, opinions with regard to new problems occurring do to globalization differ. The trend to decrease the influence of the state on the market throughout the 1980-90ties was supported by the growing influence of those, who increasingly followed neoliberal views. This changed also the focus towards sector-oriented policies (e.g. compartmentalization, silo effects), away from the expensive redistributive development policies, such as regional development policy during the Keynesian golden era.

Despite the importance, which the EU is giving to regional policy and to supporting balanced regional development through structural funds, even within the EU opinions about their effectiveness are divided. A complex and difficult relation between competition and cohesion policy is often stressed, whereby followers of the former can be easily linked to supporters of rather neoliberal views, while the latter is linked to more socially oriented supporters of redistributive and interventionist government policies. A mixture of both is being simultaneously implemented in European Union member states. It can be expected that the impacts of the accession process will initiate considerable development processes and cause institutional changes in countries like Croatia, and new governance and management approaches will be necessary.

It was also necessary to research, which theoretical moves have happened in the field of regional development theory and in which directions the newer approaches and findings go. Regional economic theory is more focused on the content of what should be coordinated and within the research field of economics the most relevant finding is that the central economic question of development – namely economic growth – is only one part of the development problematic. Further, since every economic activity is taking place in a certain space, it also has certainly significant positive and negative impact on that particular environment. Also, it is recognized that undeveloped or less developed areas in which economic activity is weak, do not have the adequate environment for attracting investments into their economy. Based on these findings, it can be stated that for the conceptualization of regional development policy the understanding of development in a broader sense, not only economic, is needed. Here, the understanding of the concept of sustainable development and the expanded understanding of socio-economic cohesion through *territorial cohesion* has provided the greatest insights.

2.2. Coordination Defined and Development Dimensions Conceptualized

It seems that based on the frequency of the use of the term "coordination" in everyday political, scientific and practical life, the understanding of its meaning is not questioned. It seems trivial and obvious that everything has and needs to be coordinated. If steps and actions are not coordinated, things do not go or function, as they should. When thinking about simple and visible examples of "good" coordination in our closest environment, we can think of traffic coordination or postal services. The technological revolution and sophisticated application of organizational and management software has improved coordination in firms and production systems. Information technology systems as well as clear rules and traffic regulations make it possible that a simple mistake is immediately visible and the wrong doers are relatively easily traced. However, in socio-political systems and their development management functions and activities, coordination looses its triviality in common understanding, due to the multiplicity of actors, domains, dimensions and levels. This became also a specific and growing problem in contemporary strategic and participatory development approaches that are more and more applied in the EU as well as other parts of the World. Governance problems occur between the different governmental, administrative and territorial levels in Europe and are often referred to as coordination problems.
Coordination as a management function, in the private and public sector, can be linked to organizational, governance and planning issues, and is generally an intangible or invisible development aspect. Coordination appears also as a characteristic or capability of a manager. According to the Merriam Webster Dictionary, to coordinate (lat. co...+ ordo, ordinis – order) means to work or act together harmoniously.

But besides joint harmonious action, the definition of coordination by Malone and Crowston (1994) give some deeper insight. They define coordination from an information technology perspective as: "managing dependencies among activities. From this perspective different kinds of dependencies can be characterized and alternative coordination processes that can manage these dependencies. Further, they stress that if a process needs to be well understood it is often necessary, besides the activities that this process includes, to understand also the relations between these activities. These relations are called dependencies and the processes that manage them are called coordination processes."

Alexander (1995) gives as well an interesting overview of various definitions of coordination, primarily in the context of organizational theory (i.e. exchange theory, contingency theory and organizational ecology, and transaction cost theory). He stresses in his work that "the transaction cost theory approach offers a well structured definition for inter-organizational coordination. Coordination becomes a way (e.g. skill or tool) of structuring relations and interactions between units of an organization or between organizations so that transaction costs can be minimized. Such coordination structures include the hierarchical organization as well as inter-organizational systems in different forms. The transaction costs approach allows also for the recognition of mutual adjustment as a form of coordination, if attention is paid to institutionalized norms within which this mutual adjustment is taking place. Coordination structures develop to reduce transaction costs of unconcerted actions. Inter-organizational coordination can take place through systemic frameworks of norms in markets or rules in market-like settings in which coordination is limited to mutual adjustment, or through more hierarchical forms of organizations, organizational units, or inter-organizational systems."
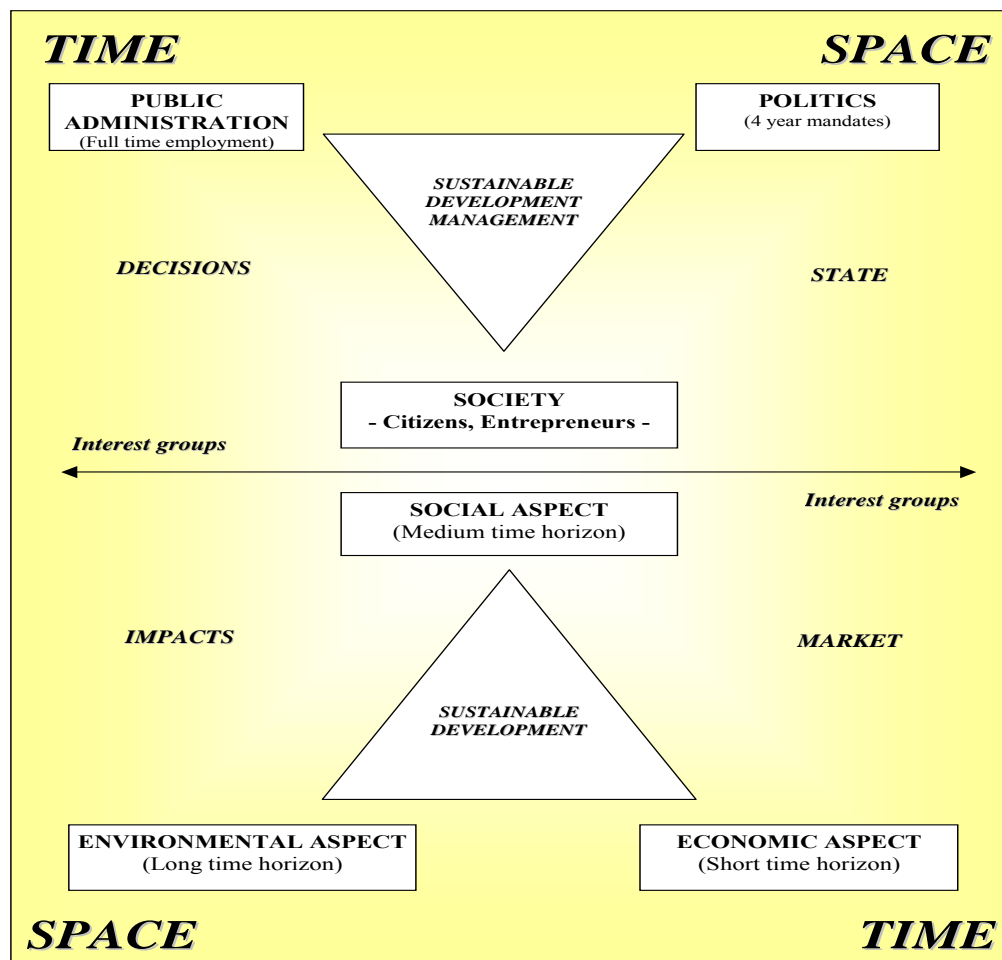
Figure 2.   Relations between Sustainable Development Management and Sustainable Development

As to the question of why would coordination be important for development, an answer can be provided by a graphical presentation of two specific development triangles (see the contextual and conceptual framework of thought presented in Figure 2). The one pointing downwards represents three key dimensions – politics, public administration and society, whose interaction is necessary for sustainable development management. The other one pointing upwards is a common triangular presentation of the three sustainable development dimensions or pillars - the economic, social and environmental. In addition to the unavoidable interaction of these two triangulated representations of the reality of development politics and policy, in this research coordination is used in the context of managing development policies, with consideration of formal and informal institutions, space and time.

As development is taking place in time and space, these important additional dimensions have to be considered when a coordination model for development management is conceptualized. Besides the visualization of different development elements in this systemic presentation, coordination needs to be viewed also through the lens of institutional structures and relations, governance modes and levels, planning and organization.

2.3. Coordination through the Lens of Institutions and Governance

The central idea of institutional economics is, as stressed by Kasper and Streit (1998), that institutions play a key role in the coordination of individual activities. The basic analysis, evolution, content, consistency and implementation of rules can tell us a lot about central economic phenomena, such as economic growth or the functioning of the market. It is also recognized that institutions represent an important element of social capital: they channel human interaction and development of the society.

Ahrens (2002) defines "institutions" according to their basic meaning, as: normative rules; and organizations or organized social groups, such as political parties, regulatory agencies, firms, or universities. There are also two strands of researchers, whereby the first defines institutions as normative rules and raises questions about how do institutions emerge, how do they change and impact economic growth and development. The second group of researchers analyses organizations, in particular firms as economic institutions. Organizations function in accordance with certain institutions, rules and regulations, deal with budgets, human resources, reporting procedures, and procurement rules that limit the behaviour of its members. Institutions create supportive structures for the behaviour of individuals and organizations. When discussing formal and informal institutions, their meaning is usually understood in the context of organizations that function according to formal or informal rules.

Another distinction between external and internal institutions is put forward by Kiwit and Voigt (1995), and Voigt (1999) and was also taken over by Ahrens (2002). If institutions are classified as normative rules, as proposed by Kiwit and Voigt, then external institutions are those formal rules that are implemented through the monopolistic force of the government. While internal institutions can be subject to private supervision and can be classified according to different characteristics of the implementation of rules. Supervision of internal rules relies on horizontal relations among the involved actors, and external institutions are based on vertical (hierarchical) implementation mechanisms. North (1990) stresses that informal institutions can in certain circumstances enforce formal rules, while in others they can block institutional change, because informal institutions show significant inertia and change only incrementally.

The concept of multilevel governance is useful as a descriptive model through which relations between the various governmental levels can be further explained within the EU. According to Carmichael (2002) a shift occurred from a two sided relationship between the EU and national authorities, toward a three-sided relationship between the regions, national authorities and actors on the level of the EU. He also stressed that regions in Europe are not homogeneous and that their sizes, functions and powers differ from state to state, even within individual states, which additionally contributes to the growing complexity. The central government level within every EU member state remains important, however, they lose the national monopolistic position. It needs to be mentioned that the EU does not represent just another level. Through its actions, the EU transforms policies and governments on European and national level. In this way a system is created, which has multiple levels, but is not hierarchical, in which governance is thought through and apolitical, and this is done through a complex web of public and private networks and quasi-autonomous implementing bodies, which take care of deregulation and regulation of the market. Decisions in the EU are made jointly by institutions of the European Union and actors on other levels, according to the "Partnership principle" and through negotiations, and not hierarchically. Based on such developments the need to find alternative forms of regulation arose, which would enable new ways of governing various policies in more and more complex institutional environments. Especially, EU member states and those affected by European policies called for simplification and improvement of regulations in the EU.

Based on the discussions on governance in the EU and related documents of the European Commission (European governance, 2001; Better Regulation action plan, 2002), three different forms of alternative regulation are defined, i.e. self-regulation, co-regulation and the *Open method of coordination* (OMC). In particular, OMC was formally introduced at the EU Council meeting in Lisbon in the year 2000, where it was recommended to use this method in policy domains such as social exclusion, small and mediums sized companies promotion and e-Europe. The mentioned policy domains are under responsibility of the national authorities within the individual member states. In general, the OMC process includes the following:

- EU policy guidelines, combined with an action plan to reach short-, medium and long-term goals;

- Quantitative and qualitative benchmarks;

- Translation of European guidelines into national and regional policies through the set-up of specific goals and acceptance of measures, taking into account national and regional differences; and

- Periodical monitoring, evaluation and peer reviews organized in form of mutual learning processes.

Coordination intends to improve governance, or to make management of policies, programs and projects possible. Governance in the sense of policy management means to decide among alternatives and then to implement those decisions that were made. Coordination can be understood as systemic implementation of various decisions that were made to accomplish common goals within one or between more organizations. These decisions can be made within one policy, program, project or more of them. Organizations, whose decisions have to be implemented in a coordinated way, can be linked hierarchically (vertically) or based on common goals deriving from differing domains or sectors (horizontally).

2.4. Coordination through the Lens of Planning

Through communicative and interactive planning approaches from the 1970ties till today significant experiences are gained, which have marked contemporary strategic planning theory and practice in Europe. Development planning is today in the European context almost unthinkable without broader participation of key development stakeholders. But with regard to participation there are differences and distinctions that have to be made. Participation in conceptualizing development can range from simple forms of informal cooperation such as exchange of information and public hearings, towards more institutionalized cooperation. Then cooperation becomes more formalized in the sense of collaborative or joint implementation of agreed activities, e.g. based on a partnership agreement. Collaboration can be seen also as a fundamental cohesive element in the functioning of established networks for the implementation of policies, especially integrated ones. In the context of collaborative planning models significant emphasis is put on institutional structures and power relations. Healey (1997) and Albrechts (2001) refer to the conceptual model of power, introduced by Bryson and Crosby in 1992, according to institutional relations in participatory planning processes can be viewed from a new angle. The presentation of a forum, arena and court by hierarchical levels of relations is very useful in analyzing institutional structures and creating collaborative networks in development processes.

To increase the probability of the realization of plans, Albrechts (2001) stressed that dialogue is necessary with those, whose cooperation will be important during implementation and to gain public support. This dialogue is a dynamic action that includes interaction with local, regional, national and supranational conditionalities and external forces, as to address the interests or agendas of those, who have the power to implement measures and projects and to ensure broad public support. Institutionalization is a process through which ideas and practices become durable reference points for public action. Such *institution building* or *establishment of arenas* require a degree of consensus on existing values and how to turn them into actions. This has to result in taking responsibilities, while different levels of government, sectors and private institutions enter into agreements to implement their plan. An *arena* is an institutional structure or setting for legal, executive and administrative decision-making. In arenas practical implications of visions are adopted, which were formulated in a *forum*, and are transformed thereafter into different forms of actions or are rejected. An arena has to enable the creation of capacity for integration, coordination, collaboration and support discussions about problems in open and transparent ways. Within an arena, plans, strategies and policies are conceptualized and direct links with key stakeholders that are or will be involved in their implementation, are created. A forum is an institutional setting for creating and communicating meanings for various development aspects. Visions and ideas for public policies are articulated, discussed and clarified in a forum.

Traditional arenas are formal governmental institutions, such as local councils, regional assemblies, or parliaments. Nowadays, formal authorities represent only one actor in development processes, while more efficient transformations do take place in informal settings. The establishment of informal institutions can have advantages, because by creating links among new people, alliances, networks, ideas and creation of arenas, new places for the articulation of strategies are created. However, the creation of flexible and dynamic networks of stakeholders and organizations requires a certain degree of maturity, whereby building mutual trust and understanding require also time and commitment. In such networks, arenas

can stimulate creation of power that can be shared by many stakeholders and enable coordinated action that otherwise would not be possible.

In addition to the above mentioned and as a basis for further development of the coordination model, the *integrative strategic development planning model or approach*, introduced by Dräger et al. (2003), was used. This strategic planning model is based on the concept of sustainability and participation and can be applied on any governmental level. It includes the planning process and provides a framework for development programs and activities. It is integrative, but does not replace sector policies, while it puts them rather in a spatial context and enables better governance. Since the goal of strategic development planning is integral development, it does not need to be understood as fulfilment of economic, social and environmental goals at the same time or in parallel. But the mentioned three aspects have to be seen as elements of fulfilling one goal, i.e. sustainable development. This does not mean that three problems are integrated in one program, but to integrate three problems into one joint development vision from which goals and objectives can be derived. Integration enables the creation of an enriched whole built through interaction of interdependent segments of one joint development. As this interaction has to be based on a common goal, such as the development of the own community in a certain direction, this can be realized only through positive and constructive communication between different sectors. For the realization of joint undertakings an organized system and adequate tools, such as strategic planning, are needed. However, most difficulties arise when inter-sector cooperation needs to be initiated, and to accept that interdependencies exist. Problems occur because of differences in power relations, not only in politics, but also within institutional structures that are built hierarchically. While, hierarchies are necessary for the functioning of system within which many act. Vertical structures can be compared to a human spine or main walls within a building. But these structures include also horizontal interactions, as well as returning information in accordance with the principle of feedback loops. In this way, a development process is viewed as a whole with a strong vertical and horizontal structure that enables circulation - flow and interaction, i.e. the action of all individual parts without beginning or end.

It needs to be stressed that strategic development planning is an integral part of strategic development management. However, planning is crucial, as it enables the establishment of needed institutional structures and recognition of content related and institutional interrelations. Information is again a precondition for creating an efficient coordination system that is necessary for successful implementation of development policies. The integrative strategic development planning model makes it possible to bridge the gap between planning and implementation, but it does not guarantee the implementation of development policies. As a model, it provides the basis for the establishment of institutional coordination structures within which more organizations act and it provides a framework for the content focused coordination of sector policies on a certain government level. It also provides an overview of interdependencies between different goals and measures. Besides structure and content, coordination of activities within organizations responsible for the implementation and among them has to be taken into account as well.

2.5. The organizational perspective of coordination

Alexander (1995) distinguishes four different forms of coordination of activities, which can be linked to different levels and phases in managing development processes:

- Coordination as exchange of information occurs in the planning phase, when data is collected about the situation in different sectors and which are held by stakeholders

and with their inclusion into the planning process exchange of information is possible; this kind of coordination can be linked to informal cooperation; exchange of information is crucial during implementation, because without reporting on implemented activities, it is not possible to monitor or evaluate the impacts and success of implemented activities;

- Operational coordination includes also exchange of information, and occurs in the planning phase as well as in the implementation phase of development programs; this kind of coordination is based on formal cooperation and refers to concrete implementation of individual tasks; decisions are based on:

    o Hierarchical order (mandated or delegated) within the responsible organization; or
    o Contract or agreement between the responsible organization and external experts;

- Managerial or administrative coordination includes the previous two kinds of coordination, but occurs predominantly during the implementation phase above the operational, i.e. on the management level where decisions are made and tasks are delegated towards the operational level; this kind of coordination refers to behaviour, decisions and interdependent activities of the whole organization; on this level frameworks are set up for operational decision making during implementation of programs or projects; on this governance level coordination is influenced by intra- and inter-organizational power relations that are linked to negotiation, trade and exchange of resources;

- Anticipatory coordination includes previous kinds of coordination and refers to coordination by plan: It is based on agreement on common goals, development of joint policies and plans for their realization, creation or transformation of institutions. It occurs on the level of policy formulation, planning and set-up of institutional structures for lower levels of inter-organizational coordination. Decisions are negotiated between involved organizations, and it refers to formalization based on partnership agreements, in which the basis for the exchange of resources and mutual relations are set. Such agreements are frameworks and the basis for coordination of activities on management and operational level. Managerial coordination includes also certain elements of anticipatory coordination, because it functions through monitoring, feedback loops and adaptation, and includes establishment of mutually agreed operational procedures, forms for information processing, action plans for those organizations that are involved creating a framework within which operational activity coordination can occur.

In accordance with coordination structures on local or regional level, e.g. in the case of development programs, anticipatory coordination is a responsibility of the representative authorities by creating collaborative cooperation with representatives of organizations (formal institutions) involved in program implementation. If a consultative body is established with representatives of key-stakeholders (e.g. Partnership council), it can act on the level of anticipatory coordination as a link between the representative authorities (e.g. local council or regional assembly, parliament) and executive authorities (e.g. mayor, county prefect and their executive body, government). Managerial coordination of activities is performed by members of the executive authorities, which actively monitor and supervise the implementation of

activities on operational level. This can be done by a person responsible for coordination within the public administration or a special institution with clearly defined mandate and resources. Administrative departments within the responsible institution for program implementation perform operational coordination, as well as departments of other involved organizations and other experts.

Before presenting the conceptual coordination model, based on a synthesis of the above mentioned theoretical and practical approaches, and the outcomes and insights of testing it in four cases, the Croatian institutional and governance framework and sources for possible coordination problems are briefly presented in the next chapter.

3. COORDINATION PROBLEMS - THE CROATIAN CASE

The issue of coordination is analyzed in a concrete development context across different spatial and governance scales in Croatia. The main insights are based on experiences in strategic development planning during the implementation of a technical assistance project financed by the German government (Deutsche Gesellschaft für Technische Zusammenarbeit - GTZ). Three pilot projects dealing with participatory strategic development planning on sub-regional and local level were developed and implemented in Croatia during 2001-2002. Thereafter, in the period 2003-2004 methodological guidelines were developed for the elaboration of strategic development programs on local level (Dräger et al., 2003). Significant coordination problems were identified and frequently mentioned, particularly in political and institutional context. In addition, experiences from the ex-ante evaluation process of the National strategy for regional development elaboration provided deep insights into coordination problems from the supra- or above national (e.g. EU), national, regional and local levels.

The territorial-administrative structure of the Republic of Croatia, as it is today, was set up in the early 1990ties after gaining independence from former Yugoslavia. Besides the new central government level and existing local self-government units, a new regional governance level was introduced. This relatively small sized regional level is comprised of 20 counties that were formed primarily to fit the political agenda of the war torn state at that time. One third of the country was under occupation during the first half of the 1990ties and the economy has suffered significantly from the trauma of war damage. The capital city of Zagreb gained a special status of being a county and local government at the same time. Till 2001 the counties had a dual status of being self-government units as well as hosting deconcentrated branches and offices of the central government, whereby the County assemblies were elected bodies and the County prefects had to be appointed by the President of Croatia. This dual status of the counties has changed after the adoption of major changes in the Constitution and Law on local and regional self-government in 2001. The counties became separate regional self-government units, with a regularly elected county prefect and county assembly members, and administering county functions and services, as defined in the newly adopted legislation. While, independent deconcentrated offices on county or local level administer central government functions. During the past 15 years, local self-government units, comprised by (urban) cities or towns and (rural) municipalities, went through a continuous process of fragmentation, whereby the total number of local units increased from 103 in the year 1992 to 550 by the end of 2003 (CBS, 2004). A central problem to the new institutional structures is

the division of functions between the "old" and "new" administrations, as well as the existence and use of relevant know-how between and within the administrations.

Though many changes are going on after the turn of the century, especially after gaining the EU candidate country status in 2004 and EU accession negotiations are opened in 2005, Croatia is still lacking institutional capacity to create consistent and implementable national and regional development policies. Based on this fact, and without entering the irresolvable discussion on state vs. market, it is obvious that development is not managed adequately. Development problems and growing imbalances between developed and undeveloped areas become more and more visible. In the Figure 3 an experimental calculation of regional GDP in 2001 by counties and in the corresponding Table 1 basic data on local level are presented (Census 2001). According to the 2001 data, Croatia arrived only at 83% of its pre-war level of GDP in 1989 and has reached only slightly more than 40% of EU25 GDP per capita. As it is stated in the analysis of the draft National strategy for regional development (2005), the socio-economic disparities across the counties in Croatia are large and continue to widen in most cases (GDP, educational level, unemployment).
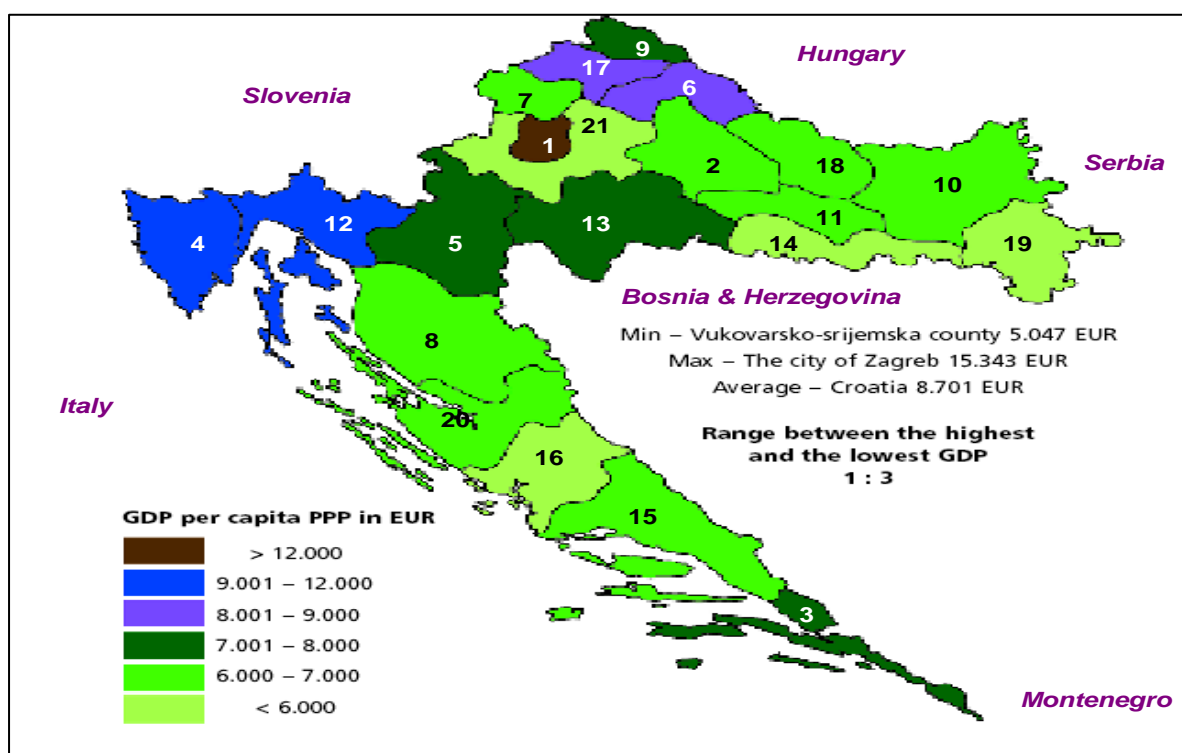
Figure 3.   Map of Republic of Croatia – GDP per capita on county level[2]

As in many other countries, political and financial power is concentrated in the capital city Zagreb. There are also numerous strategies and unimplemented development documents and programs, sector and general or integrated ones. But, almost no public information on their orderly implementation exists. Regardless of that various politicians regularly present big infrastructure development projects in the media. However, it is almost impossible to hear or very rarely mentioned that a certain measure or project is being implemented based on a particular strategy or program that was earlier elaborated in a participatory manner. This contributes to the perception that the Croatian government lacks development direction due to

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[2] Republic of Croatia, Ministry of Sea, Transport, Tourism and Development (2005)

lack of adequate policy. These perceptions are every so often overridden by the political rhetoric that the only strategic way to go with the economy is to join the EU and everything will be solved in due time. In this context, most politicians do not see any need for a new development strategy, as everything is prescribed in detail by EU legislation.

Table 1: Basic statistical data on local level in Croatia – Census 2001[3]

	County/ Town (*urban centre*)	**km²**	**Density**	**Regional GDP** (*% Share*)
1	City of Zagreb - Capital city and county	640	1,217	31.0
2	Bjelovar-Bilogora/ Bjelovar	2,638	50	2.4
3	Dubrovnik-Neretva/ Dubrovnik	1,782	69	2.5
4	Istria/ Pula (Pazin-*administration*)	2,813	73	6.3
5	Karlovac/ Karlovac	3,622	39	2.7
6	Koprivnica-Krizevci/ Koprivnica	1,734	72	2.9
7	Krapina-Zagorje/ Krapina	1,230	116	2.5
8	Lika-Senj/ Gospic	5,350	10	1.0
9	Medjimurje/ Čakovec	730	162	2.2
10	Osijek-Baranja/ Osijek	4,149	80	5.8
11	Pozega-Slavonia/ Pozega	1,821	47	1.4
12	Primorje-Gorski Kotar/ Rijeka	3,590	85	8.1
13	Sisak-Moslavina/ Sisak	4,448	42	3.6
14	Slavonski Brod-Posavina/ Slavonski Brod	2,027	87	2.4
15	Split-Dalmatia/ Split	4,524	102	7.9
16	Šibenik-Knin/ Šibenik	2,994	38	1.6
17	Varazdin/ Varazdin	1,260	147	4.0
18	Virovitica-Podravina/ Virovitica	2,021	46	1.7
19	Vukovar-Sirmium/ Vinkovci (Vukovar-*admin.*)	2,448	84	2.7
20	Zadar/ Zadar	3,643	44	2.6
21	Zagreb (Ring)/ Velika Gorica (Zagreb-*admin.*)	3,078	101	4.8
	TOTAL Republic of Croatia	**56,542**	**78**	**100.0**

Source: Republic of Croatia, Central Bureau of Statistics, Census 2001; Lovrinčević, Ž. et al. (2004)

The understanding of the need to elaborate strategic development documents – such as a national development plan (NDP) or national strategy for regional development (NSRD), are actually perceived as externally, through the European Commission imposed policy frameworks that have to be implemented by the government of the acceding state. The European Commission through technical assistance funds supports the elaboration of such documents and international consultants are hired to support relevant governmental institutions. It has to be mentioned that the need for strategic guidance documents is usually proposed by government officials, professionals within the public administration, but are practically not considered by politicians. Such documents do represent fundamental documents for the absorption of pre-accession and later structural funds, which the EU has foreseen for Croatia in a certain time period (2007-2013).

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[3] Shaded fields in Table 1 refer to the selected four cases in Croatia, where the coordination model was tested: the Island of Šolta in Split-Dalmatian County (15); the town of Virovitica in Virovitica-Podravina County (18); the County of Zadar (20); and the National Strategy for Regional Development on National level.

4. THE COORDINATION MODEL – AN EXPLANATION

If development needs to be managed, because the market is not able to satisfy the needs of the society, then coordination as a systemic function of managing development activities is unavoidable. Only the term coordination is frequently mentioned, when obstacles to implementing development activities are considered. The occurrence of the coordination problem can be synthesized as follows:

- The problem of coordination occurs on the level of international development institutions' policies, as well as on the level of European policies, because of the intention to establish balances between complex and often conflicting goals (e.g. competition and cohesion policy);

- The problem of coordination occurs in development initiatives of national states, such as the Republic of Croatia, which has problems of harmonizing its development policies due to lack of adequately defined national development policies and partially defined regional development policy;

- The problem of coordination is recognized in emphasizing the importance of the institutional framework and human factor within regional development theory, which has experienced significant paradigmatic shifts from comparative and competitive advantages towards the intention to build knowledge based collaborative advantages and in the direction of integration, i.e. the sustainable development and cohesion triangles;

- The problem of coordination becomes visible through the new understanding of governance in the public sector, which is also linked to ideological shifts from considering conflicting relations between the state and the market, the neoliberal intentions of shrinking the state towards newer insights into the importance of institutions and institutional structures for a new way of networked functioning of markets and life;

- The problem of coordination is also visible in the intention to conceptualize sector and integrated spatial development policies, strategies, programs and plans, as well as to implement them.

Lack of coordination usually manifests in moments of analyzing success or failure of development initiatives, for which the government is held responsible. If policies, strategies, programs or plans exist, implemented fully or partially, and are regarded as bad or inadequate for successful implementation of development activities, then it becomes clear, that the question of coordination needs to be considered before implementation. With the aim to review the issue of coordination within public policies, it was necessary to review organizational, public administration and policy analysis theory as well as planning theory, which all deal with certain aspects of governance and therefore with various aspects of coordination. Besides the very useful conceptual framework with different dimensions of inter-organizational coordination introduced by Alexander (1995) and numerous methodological guidelines for certain aspects of coordination, no holistic model is proposed yet that could effectively solve the problem of coordination between sector and spatial development policies.

The main aim of the research is to contribute to the development of a model, by introducing a coordination model based on interactions between horizontal and vertical coordination of development activities that derive from an integrative approach to development policies on different levels of government. When considering vertical and horizontal relations between development policies, coordination problems occur on the level of development goals, management and on operational level during implementation of activities.

Table 2: The Coordination Model - by Governance Levels and Policy Sectors or Domains

Institutions	**HORIZONTAL COORDINATION** *BY SECTORS OR DOMAINS*		
VERTICAL COORDINATION *of policies by government and governance levels*	**ECONOMY**	**SOCIETY**	**ENVIRONMENT**
NATIONAL LEVEL	*NATIONAL STRATEGY FOR REGIONAL DEVELOPMENT AND PROGRAM* *(OPERATIONAL PLAN AND ACTION PLAN)*		
POLITICAL	**Goals/Priorities/ Objectives**	**Goals/Priorities/ Objectives**	**Goals/Priorities/ Objectives**
Consultative Forum – broader Partnership group	*Consensus building*		
MANAGEMENT	**Measures**	**Measures**	**Measures**
Management Arena – narrower Partnership group	*Prioritization and identification of interdependencies or interrelations*		
OPERATIONAL	**Activities**	**Activities**	**Activities**
REGIONAL LEVEL	*REGIONAL DEVELOPMENT STRATEGY AND PROGRAM* *(OPERATIONAL PLAN AND ACTION PLAN)*		
POLITICAL	**Goals/Priorities/ Objectives**	**Goals/Priorities/ Objectives**	**Goals/Priorities/ Objectives**
Consultative Forum – broader Partnership group	*Consensus building*		
MANAGEMENT	**Measures**	**Measures**	**Measures**
Management Arena – narrower Partnership group	*Prioritization and identification of interdependencies or interrelations*		
OPERATIONAL	**Activities**	**Activities**	**Activities**
LOCAL LEVEL	*LOCAL DEVELOPMENT STRATEGY AND PROGRAM (OPERATIONAL PLAN AND ACTION PLAN)*		
POLITICAL	**Goals/Priorities/ Objectives**	**Goals/Priorities/ Objectives**	**Goals/Priorities/ Objectives**
Consultative Forum – broader Partnership group	*Consensus building*		
MANAGEMENT	**Measures**	**Measures**	**Measures**
Management Arena – narrower Partnership group	*Prioritization and identification of interdependencies or interrelations*		
OPERATIONAL	**Activities**	**Activities**	**Activities**

Source: Sumpor, M. (2005)

Levels of development policy that need to be coordinated horizontally and vertically can be explained as follows (see also graphical presentation in Table 2):

- National development policies represent the framework for horizontal coordination of national sector policies, national regional policy and national spatial development policy. These policies need to be vertically harmonized on national level with the needs of lower governance levels. National regional policy provides a framework for formulation of implementable development policies on regional and local level;
- Development policies of regions integrate horizontally sector policies and the spatial development policies, which need to be harmonized vertically with policies on higher

and needs of lower levels. They are focussed on building competitive regions and balance development of local communities located in the region;

- Development policies of local units are comprised of sector policies and spatial development policy within the local unit and define development activities by neighbourhoods as well as relations with the surroundings. They have to be in accordance with policies of higher governance levels and needs of citizens.

Based on the general presentation of the coordination model by governance levels (national, regional and local) representing external inter-institutional relations (see Table 2), a further modification through management phases can be introduced to this generalized conceptual model (see Table 3). Namely internal or intra-institutional relations are crucial for the coordination system and by organizing the information on coordination responsibilities by development management phases that refer to programming, implementation and monitoring, a specific evaluation model is created.

Table 3: The Coordination Model - by Internal Governance Levels and Management Phases

PROGRAMMING *(A-preparation, B-analysis, C-plan, D-decision, E-preparation of implementation)*		IMPLEMENTATION & MONITORING *(F-current action plan, G-preparation of new action plan, H-preparation of revised program)*	
POLITICAL LEVEL *Anticipatory coordination on the level of goals, priorities, objectives - formal coordination*	**Horizontal coordination** A, C **Vertical coordination** A, *C* **Horizontal-vertical coordination** A, B, *D*, E	**POLITICAL LEVEL** *Anticipatory coordination on the level of goals, priorities, objectives - formal coordination*	**Horizontal coordination** F, G, H **Vertical coordination** F, G, H **Horizontal-vertical coordination** F, G, H
Consultative Forum – broader Partnership group - informal coordination	*Horizontal-vertical coordination B, C, D, E*	*Consultative Forum – broader Partnership group - informal coordination*	*Horizontal-vertical coordination F, G, H*
MANAGEMENT LEVEL *Managerial or administrative coordination on the level of measures and activities «Formal coordinator»*	**Horizontal coordination** A **Vertical coordination** A **Horizontal-vertical coordination** A, B, C, D, E	**MANAGEMENT LEVEL** *Managerial or administrative coordination on the level of measures and activities «Formal coordinator»*	**Horizontal coordination** F **Vertical coordination** F **Horizontal-vertical coordination** F, G, H
External experts – contracts, technical assistance	A, B, C, D, E	*External experts – contracts, technical assistance*	F, H
Management Arena – narrow Partnership group -formalization of coordination (institutionalization of cooperation through collaborative Partnership Agreements)	*Horizontal-vertical coordination C, D, E*	*Management Arena – narrow Partnership group - formalized coordination between the Management and Operational level*	*Horizontal-vertical coordination F, G, H*
OPERATIONAL LEVEL *Operational coordination on the level of activities - formal coordination*	**Horizontal-vertical coordination** B, C, E	**OPERATIONAL LEVEL** *Operational coordination on the level of activities - formal coordination*	**Horizontal coordination** F **Vertical coordination** F **Horizontal-vertical coordination** F, G, H

Source: Sumpor, M. (2005)

In this form, it can serve for assessments of horizontal and vertical coordination activities and responsibilities. Included are external and internal institutional relations and dependencies, consensus building through participation of key-stakeholders organized in a broader rather informal forum or a narrower management oriented or more operational arena, which can also become a more formal institution or Partnership body. This model represents a general reference framework based on which qualitative analyses and conclusions can be made. It proved to be a useful and broadly applicable model.

5. COORDINATION TESTED IN CROATIAN CASES AND CONCLUSIONS

5.1. Evaluation of strategic development planning in four Croatian cases based on the Coordination model

In order to assess the four Croatian cases on the basis of the coordination model, it was also necessary to formulate a detailed assessment framework with the most relevant questions with regard to horizontal and vertical coordination that need to be addressed during the assessment process. In all four cases, development programs were elaborated with the support of external experts and according to contemporary strategic planning approaches. Integral situational analysis (quantitative data analysis and qualitative SWOT analyses) of major development sectors (economic, social, environmental, spatial and institutional) based on the concept of sustainable development were conducted in the cases of Šolta and Virovitica. While in the other two cases (national and regional) only socio-economic analyses were undertaken. Assessment of institutional structures was done in all four cases, however, qualitative elements and institutional interdependencies, internal and external, formal and informal, were generally neglected. Consultations and participatory workshops were organized in all four cases, but occurred in different stages and for different purposes. For example: In Šolta and Virovitica consultations were organized after the finalization of the situational analyses (individual meetings took place during the information gathering phase) in order to jointly identify key problems, goals and priorities. Consultative discussions were broadly organized throughout the country for the purpose of elaborating the National strategy for Regional Development of the Republic of Croatia. In the Zadar County consultations were used quite late in the program elaboration phase, but quite regularly during the implementation phase for preparing project pipelines, because the European commission had funds immediately available for the financing of first activities. The assessment results were presented in tables structured in the same way as in the presented model. Below summaries and general conclusions for the four assessed cases are presented.

a) The draft National Strategy for Regional Development for Croatia (NSRD)
The biggest incentive to more seriously accept the need for a consistent medium to long term national development policy and regional development policy came with the promised financial support from the European commission (EC) for the accessession process of the Republic of Croatia towards the EU. One of the preconditions for using pre-accession and later structural funds is the building of absorption capacity of Croatian institutions, which is only possible through coordinated action based on adequately conceptualized development programs. In this context, the Republic of Croatia has expressed its need to elaborate a National strategy for regional development, as well as the related uniform Law on regional development. The elaboration process started in 2003 with EC technical assistance support financed from the CARDS program for Croatia. The draft strategy was finalized in autumn

2005, while adoption of the strategy and law by the government and parliament is still expected (status end 2006). Therefore, regional development policy is still being implemented as before, based on partial laws targeting specific undeveloped or war torn areas.

An initial idea at the time of NSRD elaboration was also that from the same funds technical assistance for the elaboration of the National development strategy (NDP) will be financed, in which the main national development goals, regional and for sectors, would be integrated. The elaboration process was supposed to start in mid 2005 and go on for two years. This was postponed upon political decision, and instead of this strategy, a strategic reference framework is elaborated of shorter duration and narrower scope, i.e. to create a strategic concept for the use of EU pre-accession funds only. The elaboration of a National development strategy is politically seen only as an instrument for future European structural funds, which will become important after Croatia has finally joined the EU.

Since the NSRD was a draft version and still in the programming phase, only that part of the process was assessed based on the coordination model. The programming approach as well as the mode of recognizing institutional interdependencies and future institutional structures, including the key elements of the future implementation, was assessed. On the basis of the reference framework established by the coordination model some conclusions can be made. External experts emphasized the need to establish institutional structures and create conditions for strengthening the absorption capacity of the Croatian public administration, to a great extent the institutional dimension of the interaction of horizontal and vertical coordination is taken into account. It can be expected that concrete coordination problems will occur when the content related dimension is considered during the formulation of the Action plan, as well as the goals, measures and activities within the proposed programs. The content related dimension that is usually linked to regional development issues is not recognizable in this document. This leads to the conclusion that horizontal institutional relationships were not considered sufficiently. It is not clear what the government actually wants to enable with this policy - besides better administrative structures for easier flow of funds? Which goals and objectives shall be followed by interested parties on other levels of government and in which direction shall they act? It seems that the content related issues are left to some other new projects. Therefore, despite of the complex institutional structure introduced with this project and by formally respecting the partnership principle, still a predominantly vertical influence of the governmental hierarchies can be felt. Also, a strong international influence on formulating very broad national goals and objectives is present. This is for example visible in the following formulations: Objective 1 - "All counties and wider regions are able to contribute to sustainable development and national competitiveness and decrease social and economic disparities in the country"; Objective 2 - "An efficient regional development management framework is introduced by the year 2013".

Since the formulation of the new national regional policy, based on recommendations of European experts, is directed towards providing an enabling framework on national level (from the top down), the proposals of the content related part is expected from the lower levels (from the bottom up). Therefore, it will be very important in the future that lower levels of government also become able to express their real and concrete needs through adequately elaborated development programs.

b) The Regional Operational Program (ROP) of the Zadar County
The Regional Operational Program of the Zadar County is the first strategic program that was elaborated in accordance with principles and the methodology recommended by the European

commission and with international technical assistance (UNDP-UNOPS and EC). The initiation of the consultative process and realization of cooperation in working groups represented a special challenge for the County. Special attention had to be provided for the identification of the real interested partners, and inclusion of a sufficient number of stakeholders, in order to achieve an adequate representation, while constraining at the same time the involvement, as to keep the process efficient. It was recognized that the culture of dialogue (communication) between governmental and non-governmental interest groups is not developed sufficiently. In this process, the County tried to keep the consultation process going, however, admitted that this is a learning process for them as well that will continue also during the implementation phase.

The assembly of the Zadar County adopted the ROP in December 2003 and became thereafter an official County development document for the period 2004-2010. However, the program was not implementable in the first year, because the operational plan was only defined up to the level of measures and a tentative list of possible actions was prepared that could have been implemented within this framework of measures. It was recognized that for the implementation of the ROP the county did not provide any funds from the annual budget in the first year and too many priorities were defined. A second technical assistance team, i.e. EU financed external experts, was engaged in supporting the county during the first phase of ROP implementation from mid 2004. This team identified after the ex-ante evaluation shortcomings of the program and proposed immediately to revise the ROP during 2005. Implementation mechanisms had to be created and a Regional partnership was formally established. The formal coordinator responsible for the implementation of the ROP is the same person as in the programming phase and is also in charge of the Partnership Group.

c) The Sustainable Island Development Program (SIDP) of the Island of Šolta
The Sustainable Island Development Program (SIDP) of the Island of Šolta was the first formally adopted *multilevel governance development management instrument* and first development document of that kind elaborated for Croatian islands. The process started in 2001 based on the initiative and within the project "Consultations in regional development planning in Croatia", which was financed by the German government and implemented by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) in cooperation with the Institute of Economics, Zagreb (EIZ). The initiative to elaborate the program with the support of international and domestic experts was well accepted by the local self-government. One of the central goals of the project was to provide technical assistance to the Croatian government and its institutions in regional development planning. The initiation of elaborating the SIDP for Šolta represented direct support to the main project partner, the former Ministry of public works, development and construction, in the implementation of the National Island Development Program in 1997 and the Island Act adopted in 1999 and changed in 2002. According to the Island Act, the mentioned ministry was responsible to initiate the elaboration process of overall 26 SIDPs, including the Island of Šolta, as well as 14 sector State Programs for Island Development (SPID). The mentioned programs (40 in total) have to be adopted by the Government of Croatia, as Islands are areas of special state interest. Accordingly, the national institutional, legal and programming framework for the implementation of National Island Development Policy was created already in 1997, interestingly without special external assistance. However, regulations for the implementation of this policy were missing, which would make the stipulations in the Island Act operational. In this context, the initiation of the SIDP elaboration for Šolta was a pilot project that was consciously accepted by the ministry after the program was elaborated. The experiences gained through strategic development

planning process for Šolta in 2001 was the methodological basis for the preparation of the program elaboration regulations.

Despite the formal state interest, island development based on programming was not on a high rank on the list of national political priorities. This was one of the main reasons why the Municipal Council of Šolta has adopted the SIDP for Šolta in February 2002 and the Government of Croatia in November 2003. This has also negatively influenced the initially very positive expectations of the authorities and citizens on the Island of Šolta. In the meantime, during the second phase of the technical assistance project implemented by the GTZ and EIZ (2003-2005), the direct support was directed towards the Directorate for Sea, part of the new Ministry for Sea, Transport, Tourism and Development (since 2004), in initiating the elaboration of all remaining island development programs on state and island level. By the end of 2005 all draft programs were ready, while adoption by the Government is postponed on regular basis, due to various (political) reasons. Despite the weaknesses that derive from the insufficient organizational and fiscal capacity of the municipality of Šolta, as well as the weakly functioning system on national level regarding Island development policy, the SIDP of Šolta is being implemented - not completely, but at least within the given circumstances and possibilities.

d) The Strategic Development Program of the Town of Virovitica
In the introduction of the strategic development program of the town of Virovitica, it is stated that "at the beginning of 2001 the Executive body of the town of Virovitica has put forward the conclusion (decision) on the elaboration of a long-term strategic development program, which will enable all stakeholders of the town to reach an agreement on the future direction of development, and the management authorities of the town of Virovitica will have directions for the most efficient and adequate projects, activities and investments". It is also stated, that the program was elaborated with technical assistance project financed by the German government and implemented by the GTZ and EIZ. However, it has to be stressed, that the initiative to elaborate the strategic document for Virovitica actually came from the experts engaged in the mentioned project. The experts used in the elaboration process modern strategic development planning approaches that ensured also participation of various interest groups of the town. Even though, Croatian legislation does not require strategic development planning on local level, the mayor and executive body did accept the elaboration of the program with external technical assistance. In this context, the strategic development program was elaborated and was supposed to represent a new framework for development policy in the town of Virovitica, as well as a basis for coordinating development activities on the territory of the town.

Unfortunately, this program never gained the opportunity to become a development management instrument of the local government. It was elaborated in a period of significant political instability in the town. At the same time when the executive body of the town and town council were adopting the program, an opportunity to dismiss the acting mayor was being prepared secretly. The beginning of the elaboration process was characterized by the first change of government due to formal local elections in 2001. While by the end of 2002, the same year when the strategic development program was adopted, early elections were announced. The new local government did not accept the Program (lack of ownership), even though the new mayor voted for it, when he was a representative of the local council in the same town in 2002. The adopted program was for a while available on the official web pages of the town. However, soon after the early elections at the end of 2002, almost the entire managerial level of the town administration was dismissed and new web pages were created.

The new local government had its own development concept and did not refer anymore to the adopted long-term strategic development program of the town.

5.2. Conclusions after Evaluating the Four Croatian Cases based on the Coordination Model

In all four cases the coordination model presented in Table 3 was used as a general reference framework, as well as criteria were formulated for distinguishing various elements of vertical coordination, horizontal coordination and their interaction in certain steps and actions during the respective programming, implementation and monitoring phases. This reference framework was sufficiently flexible to allow that the four cases at very different levels of governance could be assed. Interestingly, the intra-institutional structure or internal vertical hierarchies were differing in all cases, while in the easiest case - the town of Virovitica, the Program is not implemented. To the contrary, in the most complex case - the SIDP for Šolta, the program is implemented. The main insight is that it is not possible to draw a clear distinction between internal governance levels. Due to political influences these lines shift because responsible persons have double roles, e.g. a mayor or assistant minister have a managerial and political role at the same time.

Based on the evaluation of the draft National Strategy for Regional Development of the Republic of Croatia through the coordination model, it can be concluded, that the institutional dimension of coordination was taken into account. However, the strategy did not recognize the content related dimension or concrete actions, usually related to issues of regional development. Despite the formal reference to the partnership principle, the dominance of the central government and international institutions is visible through the dominance of vertical institutional structures and proposed definitions of national development goals. The national regional development policy is focused on providing a framework on national level, which will enable lower levels to propose the content related part of the regional policy. In this way an acceptable framework is created that will allow for horizontal as well as vertical coordination of development activities. Formulation of regional and local development programs will be supported, in which own endogenous development potentials will be recognized and development needs clearly identified. In this way, a basis is created for the harmonization of development policies along the vertical lines, from the bottom towards the top. Also, clear information will flow about needed help from lower levels, to which the national and international level can directly respond with financial or technical support, and adequate legal and administrative changes. Overall, on national level there are significant weaknesses in horizontal coordination (lack of power) and clear presence of strong hierarchical vertical coordination (financial resources).

After evaluating the cases of the Zadar County, the Island of Šolta and town of Virovitica, based on the structured assessment instrument - the coordination model, the following can be concluded: On regional and local level horizontal coordination sees easier than on national, level due to less complex institutional structures and greater interest or need to share information. However, significant problems occur in taking over responsibilities and certain weaknesses can be identified in vertical coordination, which is strongly influenced by political relations. Further, it can be concluded that it will be important to invest in the future also in institutional capacity building on local and regional levels. This also refers to creating new and applicable knowledge within the local academic and consultancy community. Only with knowledge and openness, i.e. willingness to cooperate, and will to build a democratic and tolerant way of life and functioning, lower levels of government will be able to express

their real and concrete needs through adequately elaborated development programs. Since this is an evolutionary question, it is clear that therefore time will be necessary.

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MONEY DEMAND IN CROATIA REVISITED

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1. INTRODUCTION

This paper deals with theoretical and empirical analysis of money demand in the transition and euroised environment. Different theories of demand for money are briefly outlined leading to a conventional specification of money demand as a function of some scale variable and a set of opportunity cost variables. This finding serves as a basis for analysis of money demand in the transition environment which has some distinctive features as compared to developed economies, e.g. underdeveloped financial system, a (hyper)inflationary environment, currency substitution, etc. These specifics pose a question as to whether there is a need for a special theory of money demand in the transition environment. The literature does not seem to provide any particular theory regarding the latter. We offer a model of money demand which is based on the portfolio balance framework which, in addition to a scale variable and domestic interest rate, allows also for the impact of foreign variables such foreign interest rates and exchange rate. However, this model does not account for inflationary environment and we supplement it by allowing also inflation to be one of the determinants of demand for money. As we are interested in Croatia, we use this model as a starting point in our empirical estimations combining different co-integration techniques. The obtained findings point to absence of co-integration, which suggests there is no stable money demand function in Croatia.

This paper is organised as follows. Section 2 provides a brief overview of the theories of money demand. A discussion of distinctive features of money holding environment in transition countries follows in Section 3. A model of money demand in the transition environment is presented in Section 4. Theoretical considerations of exchange rate as a determinant of demand for money are discussed in the subsequent section. Section 6 critically reviews two previous studies on money demand in Croatia which serve as an introduction into the next section in which an empirical analysis of money demand in Croatia is conducted. Concluding remarks are summarised in Section 8.

2. A BRIEF OVERVIEW OF THE THEORIES OF MONEY DEMAND

A stable function of money demand has generally been accepted as a cornerstone of macroeconomic analysis, especially being important in formulating and conducting monetary

policy (Sriram 1999, Goldfeld and Sichel, 1990). The basic theory of money demand is the demand for real balances being a function of some scale variable (as a measure of economic activity) and a set of opportunity cost variables measuring the cost of holding money against some return-bringing alternative assets. This specification has been generally accepted among different theories and it may serve as a starting point. Different functions of money are discussed in the literature: medium of exchange function, store of value function and unit of account function (Heijdra and Van der Ploeg, 2002) with the focus being upon the first two functions with the medium of exchange function leading to the 'transaction models' and the store of value function leading to the 'portfolio models' of money demand. There are also approaches which deny any unique motives of holding money and try to analyse the demand for money in a general consumer demand framework.

This section is built around Sriram's (1999) overview of money demand theories, but it also borrows from some other reviews of money demand theories, e.g. Goldfeld and Sichel (1990) and Cuthbertson (1988). In this section, we only concentrate on the approaches coming about after Keynes' major contribution to the theory of money demand. In consequence, the analysis in this section is brief and is intended to provide an introduction into the discussion of money demand in the transition environment.

According to Baumol (1952) and Tobin (1956) money is viewed as an inventory held for transaction purposes. The inventory models assume the presence of two assets, money and an interest bearing security. Although liquid financial assets other than money offer higher yields than money, the transactions costs of going between money and these assets justify holdings of such inventory. Money is held for transaction purposes, the need for which is coming from the non-synchronisation between receipts and expenditures. As a consequence, higher average holdings of money help minimise the transaction costs, but also mean greater forgone earnings of interest.

In addition to the transactions motive, individuals hold money for the precautionary motive (Sriram, 1999). The precautionary demand for money arises because people are uncertain about the payments they might want, or have, to make. The decision they have to make is to optimise the amount of the precautionary cash balances they hold by weighing the interest costs against the advantages of not being caught illiquid.

"Cash-in-advance" models are another class of models that emphasise the medium of exchange function of money with a restriction ("cash-in-advance constraint") that purchases in the current (a given) period should be paid for by currency brought in from the previous period (Sriram, 1999; McCallum and Goodfriend, 1987). In the shopping-time models (money-in-utility function) (McCallum and Goodfriend, 1987) economic agents choose between work and leisure in order to economise on their time (shopping is assumed to take some of the leisure time and thus is costly). This model postulates that real money balances enter the utility function, because money can save time in transactions and that makes economic agents willing to hold it.

The asset (portfolio) models view the demand for money in the context of a portfolio choice problem (Tobin, 1958). In this light, wealth is allocated among a portfolio of assets with each asset generating some services. Building on the risk-aversion theory, Tobin postulated that an individual would hold a portion of his/her wealth in the form of money in the portfolio because the rate of return on holding money (under non-inflationary environment) was more certain than the rate of return on holding earning assets. Despite that, an individual will be

willing to take the risk of holding other assets than money because the expected rate of return on these assets is higher than on money. In consequence, the risk-averse agents may include some money in an optimally structured portfolio.

The store-of-value function of money is also emphasised within "overlapping-generations models". Money is used to provide the smoothening of consumption between generations (young and old). In addition, money allows wealth transfers between generations that work and retire, resulting in the holding of money balances.

Friedman restated the quantity theory by putting it in the tradition of the general utility approach to consumer demand (the consumer demand theory approach) and hence did not consider explicit motives for holding money (Cuthbertson, 1988). Instead Friedman uses the theory of asset demand and his concept of permanent income to make money demand a function of wealth and the relative return on other assets. Money is a part of financial assets, but the portfolio should also include real goods as they yield a stream of services. As a result, Friedman suggested that a broad range of opportunity cost variables including the expected rate of inflation have theoretical relevance in a money demand function.

This section has focused on different theories, briefly explaining the motives for holding money. These theories are of general relevance for the analysis of money demand and have been discussed assuming developed economies' environment with well functioning markets. As we are interested in transition economies, the conventional framework for money demand analysis should be modified to allow for specific features of such an environment.

3. DISTINCTIVE FEATURES OF TRANSITION ECONOMIES REGARDING THE MONEY HOLDING ENVIRONMENT

The beginning of 1990s saw major changes in the Central and Eastern Europe. The process of transition from a planned to a market-oriented economy started and introduced significant changes. The economy has begun functioning on market principles, but a lot of time and energy has been required in making these economies similar to the developed market economies. In some countries, the process of transformation is still underway. These processes imply an uncertain and constantly changing environment which must be kept in mind when discussing the economic processes, one of them being the behaviour of money demand in which we are interested. This means that the theories of money demand outlined above might not be sufficient for explaining the behaviour of money demand in transition economies. A question on the appropriateness and desirability of a special theory arises here, but we leave this discussion for the next section. Here we will attempt to identify some of the distinctive features of transition environment that might be important for the investigation of money demand.

We start with the institutional set-up concerning the central bank and commercial banks. In an attempt to follow the role model of developed market economies a two-tier banking system has been put in place in transition economies. This, of course, did not automatically mean that it would start working efficiently immediately upon its introduction. A lot has been done on improving central bank independence and cutting off the political ties to the government. Privatisation of the commercial banks and the entry of foreign banks, after which domestic banks started working more efficiently, was also an important element in providing transition

economies with a banking sector comparable to that of developed economies. Although by now, the banking sectors in most transition economies might be perceived as having shown considerable developments, capital markets seem to have been lagging behind. This implies a lack of depth in the financial system and absence of financial intermediaries, resulting in less investment opportunities for economic agents (lack of domestic financial assets). That is also reflected in a possible non-diversity in the portfolio these agents hold and implies higher risks making them flee from the domestic currency to foreign currency. This was strengthened further by the monetary instability occurring at the beginning of transition which was often coupled with high and volatile inflation rates and exchange rate instability. There is also an issue of confidence in commercial banks as most transition countries have been faced with banking crises introducing additional uncertainty regarding the decision as to whether to hold money deposits in banks. All these factors have induced currency substitution, which especially took hold after the external liberalisation and introduction of current account convertibility, sometimes joined by the dismantling of capital movement restrictions. As a consequence of the low credibility of monetary policy and domestic currency some alternative forms of financial innovation have occurred, one example being the indexation of loans and saving deposits to a foreign currency. In order to lower the risk concerning the domestic currency, individuals have often decided to hold deposits in foreign currency. This, as we will see below, gives rise to a special relevance of portfolio models of money demand.

All the factors mentioned above imply a specific money holding environment, distinct from the one present in developed economies. That is why it is argued a modified approach to money demand in the transition environment is needed and in what follows we attempt at providing such an approach.

4. DEVELOPING A MODEL OF DEMAND FOR MONEY IN THE TRANSITION ENVIRONMENT

As argued above, a new approach to the modelling of money demand in the transition environment is desired focusing on different aspects of the theories outlined previously. So far the literature on money demand in transition economies does not seem to provide a particular theory of money demand, but, rather, concentrates upon using the existing theories as a basis for empirical analysis. A question of the appropriateness of such an approach is raised here.

4.1. Why do people hold money in transition countries?

A starting point for this analysis should be in providing an answer to the question as to why people hold money in transition countries or as to why it might be different from developed economies. This is not an easy task. The answer(s) will affect the specification of money demand.

One of the most important requirements for a functioning economy is the existence of money. Although it can be shown that an economy can function on a barter basis (Heindra and Van der Ploeg, 2002), i.e. without money, this comes only with considerable costs for the economy and therefore we ignore such a possibility. At this point we assume money is present in the economy and we build our model around that assumption. We also assume that money in such an economy has the conventional three functions as suggested in the previous section. To what extent are these functions present under the transition environment?

Money (domestic money) is assumed to play a very important role as a medium of exchange if it is used as a solely legal tender for payments in the economy. It is used for transaction purposes thus resulting in a transactions motive for holding money balances. The higher the number of transactions, the higher average money balances held by economic agents. The unit-of-account function is present too. As discussed in Section 2.1. money also plays a store-of-value function. The importance of this function of the domestic money is highly questionable in an (hyper)inflationary environment which has been the case quite often during the initial stages of transition at the beginning of 1990s. This suggests that the use of Cagan-type money demand might be useful, as for example in Phylaktis and Taylor (1993) who analyse Latin American experiences and suggest that under conditions of very high inflation, there will be strong incentives for agents to substitute foreign for domestic assets in their portfolios.

We have still not answered the question as to the importance of the store of value function. During the initial stages of the transition process, it is most likely that this function is of minor importance. This is due to two factors, the inflationary environment (inflation as an opportunity cost in determining the demand for money) and the depreciating (devaluating) exchange rate, both of which make economic agents flee from domestic money either to some real assets (real estate or equities) or to the alternative of holding foreign currency. The latter introduces currency substitution element into our analysis as it opens a possibility that foreign currency is used instead of domestic currency. Foreign money can be used as a medium of exchange, unit of account and store of value thus leading to a weaker role for domestic money (lowering the demand for domestic money). As the transition process evolves, it is possible that the economy becomes more efficient, and related to this, also the domestic currency begins to play a stronger role as confidence becomes stronger. This might lead to an increased demand for domestic money at later stages of transition, but one should keep in mind the negative reminiscences (inflation, exchange rate devaluations) economic agents have, thus allowing for a stronger medium of exchange function for domestic money but not for the store of value function.

The reasoning above suggests some similarities between the transition process and Latin America countries' experiences with hyper-inflation and the dollarisation phenomenon. It provides an insight into how the demand for money might be modelled for Croatia. A usual approach in the literature, in the presence of currency substitution, is to consider a model of money demand using a portfolio balance approach. Within this framework the demand for different assets can be modelled, e.g. the demand for domestic money and demand for domestic bonds, with a possibility that decisions of economic agents are also affected by foreign variables such as foreign interest rates or expected changes in the exchange rate. This approach also allows for the treatment of demand for foreign currency (foreign currency deposits) or foreign bonds as a choice in the portfolio between different assets. In particular, this becomes important if small and open economies are considered, which is the case with most transition economies. Bjornland (2005) argues that, in an open economy, individuals face a choice not only between holding different domestic assets, but also between holding domestic and foreign assets.

4.2. Developing a model of money demand in the transition environment

As suggested in the end of previous section, a portfolio balance framework for modelling the demand for money might be used to account for the specific features of the transition

environment affecting the demand for money. In the general Tobin-type model, where all relevant assets are included in every asset demand, the rate of return on foreign assets also influences the demand for domestic money. Such a model is developed in several studies, e.g. Cuddington (1983), Alami (2001), De Freitas (2004), Chaisrisawatsuk et al. (2004) and Mizen and Pentacost (1996). The model provided in these studies is of the following general form:

$$M/P = m(y, i, i^* + x, x, W/P)$$

$$B/P = b(y, i, i^* + x, x, W/P)$$

$$M/P = m(y, i, i^* + x, x, W/P)$$

$$M/P = m(y, i, i^* + x, x, W/P)$$

$$W = M + B + SM^* + SB^*$$

where, following Cuddington (1983), domestic investors are allowed to hold their wealth in the form of four different assets: domestic money, M; domestic-currency- denominated non-monetary assets referred to as domestic bonds, B; foreign money, SM^*; and foreign bonds, SB^*. These demands depend on the assets' respective returns, real income (y) and real wealth (W/P). Domestic interest rates, foreign interest rates and expected depreciation of the exchange rate are represented by i, i^* and x, respectively. An economic agent's decision to hold a combination of assets depends on their expected rates of return. Therefore, the domestic money demand function should not only be explained by domestic variables but also the expected returns on foreign assets.

From the above model, usually something similar to equation (1) is derived for estimating the demand for domestic money:

$$ln\,(M/P)_t = c_0 + c_1\,ln\,y_t + c_2\,i_t + c_3\,(i^*_t + x_t) + c_4\,x_t + u_t \qquad (1)$$

where $c_3 < 0$ and $c_4 < 0$. Equation (1) introduces also the impact of foreign interest rates which might be argued to be important if domestic agents have a possibility of holding foreign bonds in their portfolio. However, we do not expect this to be significant during the initial stages of transition, although it might evolve as the transition process advances. Instead, we can assume that foreign currency deposits held by agents in domestic banks are substitutes for foreign securities and for that reason use interest rates on foreign currency deposits in our model.

In order to reduce the problem of multicollinearity in (1) the estimation equations can be rearranged such that demand for domestic money is a function of income, domestic interest rate, foreign interest rate (interest rate on foreign currency deposits), and the expected rate of depreciation. In that case the model becomes of the form (2) and can be empirically estimated.

$$ln\,(M/P)_t = b_0 + b_1\,ln\,y_t + b_2\,i_t + b_3\,i^*_t + b_4\,x_t + u_t \qquad (2)$$

Although the above models allow for currency substitution, there seems to be one element missing from our discussion above. In that discussion we have emphasised the importance of inflationary environment and inflation might be expected to be one of the determinants of money demand in the transition environment, especially at the early stages of transition (as for example shown in Slavova, 2003). The models outlined above might be extended in the Friedman (1956) tradition by allowing economic agents to also hold real assets and introducing the expected inflation into the money demand equation. Thus, the expected rate of inflation becomes an additional opportunity cost variable and closes our model of money demand in the transition environment resulting in the equation (3) which can be used as a starting point in the empirical analysis.

$$ln\,(M/P)_t = b_0 + b_1\,ln\,y_t + b_2\,i_t + b_3\,i^*_t + b_4\,x_t + b_5\,\pi_t + u_t \qquad (3)$$

where π_t is the expected rate of inflation.

The model specified above deals with the demand for real money balances (M/P). This is the conventional approach in the literature on money demand, which assumes price homogeneity of degree one, i.e. it assumes that economic agents do not suffer from money illusion. However, this proposition is questionable during transition and therefore a possibility of non-homogeneity should be allowed for within our model and empirically tested.

5. EXCHANGE RATE AS A DETERMINANT OF DEMAND FOR MONEY

A number of studies of money demand have argued in favour of including some additional variables as determinants of money demand. These range from including foreign interest rates to the inclusion of exchange rate movements into the money demand analysis. Mundell (1963) was the first one to argue that the demand for money is likely to depend upon the exchange rate in addition to the interest rate and the level of income due to the impact of free capital mobility on the effectiveness of monetary and fiscal policy. Arango and Nadiri (1981), Cuddington (1983) and many others also argue in favour of including foreign variables. Although our model discussed in the previous section allows for the impact of exchange rate on money demand, we need to develop a rationale for the choice of different ways in which it can be included into our analysis.

Changes in the exchange rate play a special role under the presence of currency substitution, together with a high degree of openness of an economy. These two elements are both important for Croatia and they call for a particular relevance of the exchange rate as a determinant of demand for money.

The analysis in previous sections has provided a rationale for including the exchange rate into the money demand analysis. The primary reason for its introduction lies in the environment characterised by monetary instability and uncertainty, coupled with high inflation and depreciating exchange rate, all of which were present during the initial stages of transition. In such an environment, domestic agents are reluctant to hold domestic money and turn to foreign money as a safer haven. The decision to hold foreign money is mainly inspired by expected depreciation of the domestic currency. Although it might seem straightforward to conclude that the impact of an exchange rate depreciation on money demand is negative, economic theory provides arguments in favour of both positive and negative impact on demand for domestic money (Tang, 2002). Thus, Arango and Nadiri (1981) suggest that, given the assumption that wealth holders evaluate their portfolios in terms of home-currency and given that the depreciating exchange rate increases the value of the holdings of foreign securities (or foreign currency deposits as in the case of Croatia) converted into domestic currency, this manifests itself as an increase in the domestic monetary base, forcing the domestic interest rate downward and demand for home currency upward. On the contrary, they also propose that an increase in both the foreign interest rate and expectations of increase in exchange rate have similar effects on the domestic interest rates, forcing it upward and leading to a decrease in demand for home currency. Hence, the exchange rate can have a priori both positive and negative effects on money demand. Cuddington (1983) argues that, within the portfolio balance approach, the net effect of an increase in the expected rate of depreciation is to increase the demands for both foreign money and foreign bonds, leading to a fall in the demand for domestic money. Bahmani-Oskooee and Pourheydarian (1990) also

suggest the negative relation arguing that when domestic currency depreciates, the public could expect further depreciation and thus, demand more of foreign currency and less of domestic currency. As the transition environment is specific and surrounded with uncertainty, that in particular being the case during the initial stages, agents do not have confidence in domestic banking sector, thus probably not holding their money as foreign currency deposits in banks. If that is the case, the positive effect discussed above should not be expected. Negative effects of depreciation are more likely as further depreciation might be expected. We conclude this discussion with an expectation of a negative effect of expected exchange rate depreciation on money demand.

The above discussion does not provide a clear-cut answer as to the choice of the exchange rate to be used, i.e. to the question as to whether to use the changes in the current exchange rate or to use the expected changes in the exchange rate (mainly referred to as the expected depreciation). It could be argued that, under the strong presence of currency substitution, the expected changes in the exchange rate are the appropriate variable as this is the opportunity cost of holding domestic money and as such should be included into money demand analysis. If this appears to be a satisfying explanation for the use of expected changes, there remains a significant difficulty as to how to measure the expectations. This difficulty might be resolved if adaptive expectations are used, thus deriving the expected changes in the exchange rate from its previous values. Bahmani-Oskooee and Pourheydarian (1990) suggest a solution by imposing a lag structure on the exchange rate variable, arguing that since the expectations are usually formed as a weighted average of current and past exchange rates, the data should decide the nature of weights. Arango and Nadiri (1981) calculate the expected changes in the exchange rate as a difference between the forward and spot exchange rates, but this approach cannot be applied in the transition environment, because the markets are not developed enough and do not provide the forward exchange rates. McKinnon (1982) assumes the expected change in the exchange rate to be equal to the difference between home and foreign interest rates. However, there is a problem in his approach as the said difference not only measures the currency risk, but also the country risk, which is expected to be important during the transition process and arising uncertainty related to it (changing risk premium). The problem related to the country risk can be circumvented if we consider the difference between the interest rate on domestic and foreign currency deposits held in domestic banks arguing that, under the assumption of efficient markets, the expected change in the exchange rate is equal to this difference. As there are problems with measuring the expected changes in the exchange rate, this issue is often neglected in empirical studies and, without theoretical justification, the levels in current exchange rates are used instead of the expected changes in it (e.g. Payne, 2003). There seems to be an inconsistency in the literature between the theoretical considerations and their application to empirical studies thus calling for a more carefully and rationally argued approach in our attempt to estimating the money demand in Croatia.

6. A CRITICAL REVIEW OF PREVIOUS STUDIES ON MONEY DEMAND IN CROATIA

Some of the recent attempts to estimating money demand in Croatia are considered in this section with an intention of critically appraising them in order to be able to produce a more relevant and more applicable study on money demand in Croatia.

Recently money demand in Croatia has been empirically estimated by Cota and Erjavec (2001) and Payne (2003) which serve as a basis on which we build our analysis in this and the following section. Unlike Cota and Erjavec (2001) and Payne (2003) which cover the post-stabilisation period until December 2000 and August 2002, respectively, we have a longer period at our disposal ranging from the year 1994 to the end of 2004. One of the advantages of conducting this investigation at a later point in time is the longer time period available, which is important when considering long term relationships. The first line along which the previous studies, and admittedly, perhaps even the present study, despite the longer time scale, should be criticised is the length of time period considered and econometric methodology employed. As the co-integration tests are used to check long-run relationships between economic variables, the sample period becomes of crucial importance. Although the co-integration literature does not specify a minimum length of data period (Hakkio and Rush, 1991), longer periods are preferable because they allow for the equilibrium (long run) movements to take place. Researchers investigating the transition economies, as is the case in the present analysis, are often faced with the difficulty of not having long enough sets of data, and use relatively short data sets to check for co-integration. Caution must be exercised in this sort of situation and there is a necessity to consider whether the estimated relationship represents the 'true' long-run relations in which we are interested when testing for co-integration. In this context, the issue of data frequency also becomes important. Campbell and Perron (1991) argue that applied researchers are often faced with choices among different types of data set for a given time series. The data might be available at different frequency and if possible it is the most appropriate to use annual data for testing the unit roots. Since in the transition countries there are not enough observations on annual basis, usually quarterly or monthly data are used covering 10-12 years. It could be argued that this is not enough for revealing the 'true' long-run relationships, but that is all what we have available. In particular, this study may be more reliable than the previous studies which employed the same estimation techniques using a shorter time span (7-9 years). It is the time span that is important, not the number of observations. Hence, the use of more frequent data, e.g. monthly data instead of quarterly data (thus increasing the number of observations), as it was the case with previous studies, does not guarantee a more reliable long-run relationship (Hakkio and Rush, 1991). If data of higher frequency is used, it is likely that seasonal effects will be important and this issue should be accounted for by seasonally adjusting the data or by including the seasonal dummies in the estimations, which can further complicate the analysis and bias the results.

The second line of criticism focuses on the stability of money demand found in previous studies. The transition environment is, by definition, an environment likely to be a subject to frequent changes, and structural breaks are likely during these changes. Hence, the estimated relations should be checked for structural stability. In addition to this general remark, there are several more issues that are specific for Croatia and might be perceived as a potential source of instability. As a consequence of pursuing the exchange rate targeting, which is the framework for the conduct of monetary policy in Croatia and intervening in the foreign exchange market the domestic currency money supply (M1) more than doubled in the period 2000-2003. Surprisingly, this has not been reflected in inflation rates that remained very low. This might be expected only if there has been a strong increase in money demand, thus pointing to a potential instability of money demand function. There might have been another change in money demand in Croatia in the period of banking crisis 1998-99. Because of the period they cover, the previous studies could not have analysed the recent changes and they found stable functions of money demand in Croatia. We expect that our empirical analysis

will detect some of the mentioned changes and possibly provide different results concerning the importance of determinants of the demand for money in Croatia.

As considered earlier, monthly data has been used in previous estimations, probably with an intention of increasing the number of observations. However, the scale variable, GDP, is not available at monthly frequency, and usually the index of industrial production, which is available on monthly basis is used instead (this is not only specific for Croatia, but many other studies conducted in different countries). As a consequence of using monthly data, the choice of scale variables is constrained, which might result in the use of less appropriate variables leading to different (and possibly wrong) conclusions about their impact on money demand. We argue that GDP should be preferred as the services sector accounts for more than 60% of GDP, and if we use the industrial production index, the economic activity variable may not be as representative as GDP. Therefore, in addition to using the monthly data, we consider the use of quarterly data more appropriate as there are more series available at this frequency, which allows for a better specification of money demand.

In section 4 we have specified a model allowing for the impact of the exchange rate on money demand. As we have argued, changes in the exchange rate are of particular importance and the currency substitution hypothesis should be tested within money demand framework. Cota and Erjavec (2001) disregarded the use of the exchange rate in their estimation of money demand in Croatia as their initial estimations found it insignificant. On the contrary, Payne (2003), using the index of real effective exchange rate, found a negative and significant impact of exchange rate depreciation on money demand in Croatia in the short run, in support of the currency substitution hypothesis. The long run estimations were not reported in his study, so we have no evidence of currency substitution in the long run. As a consequence of these different findings, the currency substitution hypothesis remains an unsettled issue in Croatia. In order to try to solve this issue, we follow Payne in our estimation in that we include the exchange rate in money demand function, but, as we considered in the previous section, we need to decide in which way to include it into our analysis. The theoretical considerations discussed in section 5 suggest the expected change in the exchange rate is the appropriate variable, and unlike Payne (2003) who uses the index of real effective exchange rate and not the expected changes, we estimate the money demand including the expected changes. In addition, we concentrate on the euro exchange rate which should be more relevant for reasons discussed earlier. These modifications should result in a more appropriate test of the currency substitution hypothesis in Croatian money demand.

7. AN EMPIRICAL STUDY OF MONEY DEMAND IN CROATIA

This section presents an empirical analysis of demand for money in Croatia and compares this study's findings with the two studies mentioned earlier. First, we outline the model of money demand and methodology applied. Then, we consider the choice of variables used in the empirical analysis and present the results obtained by the use of different co-integration techniques.

7.1. Model specification and econometric methodology applied

In section 4 we have discussed the theoretical considerations of developing a model of money demand in the transition environment. In this section we focus on empirical estimation of the

specified model in Croatia. The model is of the same form as introduced above in equation (3).

$$ln\ (M/P)_t = b_0 + b_1\ ln\ y_t + b_2\ i_t + b_3\ i^*_t + b_4\ x_t + b_5\ \pi_t + u_t \qquad (3)$$

where M, P, y, i, i^*, x and π are money balances, the index of consumer prices, a scale variable (industrial production or GDP), the interest rate on time deposits not indexed to foreign currency, the interest rates on foreign currency time deposits, the expected depreciation of the exchange rate and expected inflation. The model is specified in a log-linear form in order to provide the elasticity or semi-elasticity of money demand with respect to the independent variables on the right hand side of the above equation. The model of money demand is specified as the demand for real money balances, as suggested by the theory. However, we also test the proposition that under the changing transition environment price homogeneity of degree one does not hold, i.e. that economic agents suffer from money illusion. The model is estimated for narrow money balances M1 on both quarterly and monthly basis.

As regards the methodology employed, our attempt in estimating money demand in Croatia applies two econometric approaches to co-integration: Johansen approach to co-integration as in Cota and Erjavec (2001) and ARDL approach to co-integration as in Payne (2003). This may result in additional evidence concerning the money demand function. In comparison to the previous studies, this study is important as it covers a longer time period. This provides a more reliable basis for co-integration analysis although it may still be too short a time period, as discussed in previous sections. If long run relationships are found, error correction mechanisms will be considered thus allowing also for the analysis of short term dynamics in the demand for money in Croatia. Special attention will be paid to the important question of the stability of money demand function in Croatia.

Engle and Granger (1987) were the first to develop co-integration analysis, but soon afterwards some better approaches were developed. **Johansen approach to co-integration** (Johansen, 1988; and Johansen and Juselius, 1990) has become a standard estimation-technique of different long-run relationships in economics. It starts with checking the time series properties of the data, i.e. checking them for unit roots and if they are found to be I(1), they can be tested for co-integration. Two tests are available to test for co-integration: the trace test and the maximum eigenvalue test. By using these two tests the number of co-integrating relationships (co-integrating vectors) is specified and long-run equilibrium relationships are then determined. Error correction models are also estimated to account for the short-run dynamics of the underlying long-run relationships. The **bound testing approach to co-integration or the ARDL (Autoregressive Distributed Lag) approach,** developed by Pesaran et al. (2001), has recently gained in popularity as it has several advantages. Tang (2002) and Payne (2003) outline two main advantages over the common practice of co-integration analysis (Engle and Granger, 1987; Johansen, 1988; and Johansen and Juselius, 1990). First, the bounds test procedure can be applied irrespective of whether the explanatory variables are I(0) or I(1), and it avoids the pre-testing problems associated with standard co-integration analysis which requires the classification of the variables into I(0) and I(1). Second, the method can be applied for studies that have small finite samples. The first advantage is due to the fact that Johansen approach requires variables to be I(1), whilst bounds testing approach is not restricted in that way. The second advantage is even more important in our analysis as we have a relatively short time period of data at our disposal and this technique still allows us to proceed with testing for co-integration in the money demand specification.

7.2. The choice of variables

The demand for M1 is estimated in this study on both monthly and quarterly basis. Unlike previous studies which use monthly data, we also use the quarterly data in order to have a broader choice of scale variables. M1 represents kuna cash outside banks, deposits with the central bank by other banking institutions and other domestic sectors as well as banks' demand deposits, thus focusing our investigation on the demand for narrow monetary aggregates. The price index used is the index of consumer prices (CPI) on basis of which the inflation rates are also calculated. Opportunity cost variables, besides the already mentioned inflation, are represented by interest rate on kuna deposits not indexed to foreign currency (i), and by interest rate on foreign currency deposits (i^*) held in the domestic banking sector. The scale variable used is the industrial production index (IP). Notwithstanding our previous criticism we use this, but in the quarterly estimations we use GDP as a measure of transactions, as GDP may be a better proxy for measuring economic activity. Unlike Payne (2003) who uses the real effective exchange rate, we use the euro exchange rate in order to check for the impact of the changes in the exchange rate on the money demand. In addition, we also use the expected changes in the euro exchange rate for the reasons discussed in section 5. The series used in our investigation are collected from different sources: the Croatian National Bank, the IMF International Financial Statistics data basis and the GDP series from the Institute of Economics Zagreb. Depending on the analysis, we use monthly and quarterly series which come in a seasonally unadjusted form. As the seasonal fluctuations are likely when using higher frequency data, we could account for this by using the seasonal dummies in our specifications. However, there is a problem with the use of seasonal dummies because the critical values within approaches (bounds testing approach) we are planning to use are not developed as to allow for testing long run relationships in the presence of these dummies. Therefore, we have only decided to seasonally adjust the series on money balances (M1) and scale variable (IP or GDP) as these series are most likely to exert seasonal patterns. The X-12 ARIMA technique has been employed in obtaining the seasonally adjusted series on M1, IP and GDP, which are used in the empirical analysis.

7.3. Empirical estimations and the determinants of money demand

In this subsection we present the results from the empirical estimations of money demand in Croatia. We start with the bounds testing approach by first explaining how this technique is applied and then proceed by applying these steps to our empirical estimation. In the second part of this subsection we employ the Johansen approach to co-integration. In the end we summarize our findings and compare them to those of previous studies of money demand in Croatia.

7.3.1. Money demand estimation using the bounds testing approach

We have already emphasised the advantages of bounds testing approach to co-integration, and the importance of these to the present study. The ARDL procedure involves two stages. These are:
  ⬥ First stage: the bounds procedure for testing for the existence of a level long run relationship,

⬥ Second stage: estimation of the long run coefficients and the associated error correction model.

The first stage is of crucial importance because the finding that there is a long run relationship is a precondition for proceeding to the second stage. The existence of the long-run relation between the variables under investigation is tested by computing the F-statistic for testing the significance of the lagged levels of the variables in the unrestricted error-correction form of the underlying ARDL model. Pesaran et al. (2001) argue that the absence of autocorrelation is crucial for the validity of the bounds tests. Therefore the underlying estimation must be checked for serial correlation of the disturbances and the lag order of the underlying model selected properly. Serial correlation is therefore the primary concern when selecting the number of lags, but in addition we can also use the AIC and SBC information criteria. Under the assumption that the disturbances are serially uncorrelated, the computed F statistic is compared to a specific band (a critical value band provided by Pesaran et al., 2001), with its upper and lower bound, and the decision is made according to the following rule. If the computed F-statistic falls outside the band, a conclusive decision can be made without needing to know whether the underlying variables are I(0) or I(1), or fractionally integrated. If the computed statistic falls within the critical value band, the result of the inference is inconclusive and depends on whether the underlying variables are I(0) or I(1). If the former is the case, the F statistic exceeding the upper bound suggests that we can reject the null hypothesis of no long-run relationship. If the computed F statistic is lower than the lower bound of the critical value band, we accept the null hypothesis that there is no long-run relationship. If the null is rejected, we can proceed with the second stage by estimating the long run coefficients and the error correction model.

After we have briefly outlined the ARDL approach, we proceed by estimating the money demand function in Croatia. Although the theoretical analysis in Section 5 suggested the use of expected change in the exchange rate, we start our estimations using the euro exchange rate due to a longer time period available. The expected change is calculated on basis of the data that start in July 1995 and thus covering a shorter time span. At later stages we also include the expected change in the exchange rate in the model. The underlying ARDL relationship is of the following general form:

$$\Delta \ln(M1/P)_t = \beta_0 + \sum_{i=1}^{n} \beta_{1i} \Delta \ln(M1/P)_{t-i} + \sum_{i=1}^{n} \beta_{2i} \Delta \ln Y_{t-i} + \sum_{i=1}^{n} \beta_{3i} \Delta i_{t-i} + \sum_{i=1}^{n} \beta_{4i} \Delta i^*_{t-i} +$$

$$\sum_{i=1}^{n} \beta_{5i} \Delta \ln(ER)_{t-i} + \sum_{i=1}^{n} \beta_{6i} \Delta \Pi_{t-i} + \delta_1 \ln(M1/P)_{t-1} + \delta_2 \ln Y_{t-1} + \delta_3 i_{t-1} +$$

$$\delta_4 i^*_{t-1} + \delta_5 \ln(ER)_{t-1} + \delta_6 \Pi_{t-1} + \varepsilon_t \qquad (4)$$

As we are testing both the monthly and quarterly demand for money, the above model is modified so as to account for the series available at different frequencies. As a consequence of a possible problem with multicollinearity, different specifications of the model are tested by including/excluding the interest rate on foreign currency deposits in the money demand function. For simplicity, in the model above we only present the demand for real money balances. However, we have an intention of testing the proposition of price homogeneity of degree one and it will be reported together with the rest of our results below. We determine the number of lags primarily accounting for the problem of serial correlation for the reasons discussed above. Usually, more lags are added to reduce autocorrelation. A word of caution is needed here. As our sample period is relatively short and the model includes a relatively high number of regressors, we should not allow for too many lags because this decreases the

degrees of freedom. We will use the testing down procedure by starting with four or five lags on quarterly basis and twelve lags on monthly basis.

At the first stage of the bounds testing procedure we test the null of no long run relationship by computing the F statistic that the lagged coefficients in the level variables are equal to zero, i.e.

$$H_0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0$$

In Table 1 we report different specifications of quarterly money demand (depending on the number of lags included) and in relation to that different F statistics. At the initial stage, the underlying unrestricted error correction model, as presented in equation (4), includes the following variables: the real money balances (M1/P), GDP, i (interest rate on kuna deposits not indexed to foreign currency), rate of inflation and the euro exchange rate. All variables except interest rates and inflation are in logarithms. Later on we also include the interest rate on foreign currency deposits and the expected changes in the exchange rate, in accordance with our theoretical discussions.

Table 1. Bounds testing approach to quarterly money demand (real money balances)

Number of lags	LM statistic[1] (p-value)	AIC[2]	SBC[3]	Time trend included[4]	F-statistic	Critical bounds[5] (5%)	Critical bounds (10%)	Rejection of H_0
5	21.97 [.000]	85.90	61.36	No	1.90	2.86-4.01	2.45- 3.52	N/A[6]
	16.29 [.000]	90.32	64.99	Yes	2.10	3.47-4.57	3.03-4.06	N/A
4	27.56 [.000]	77.58	56.64	No	4.93	2.86-4.01	2.45- 3.52	N/A
	30.37 [.000]	86.52	64.77	Yes	7.40	3.47-4.57	3.03-4.06	N/A
3	12.83 [.012]	60.07	42.88	No	0.92	2.86-4.01	2.45- 3.52	N/A
	28.26 [.000]	71.49	53.47	Yes	4.49	3.47-4.57	3.03-4.06	N/A
2	12.26 [.016]	63.16	49.86	No	0.60	2.86-4.01	2.45- 3.52	N/A
	12.35 [.015]	66.55	52.41	Yes	1.83	3.47-4.57	3.03-4.06	N/A
1	3.25 [.518]	69.42	60.13	No	1.94	2.86-4.01	2.45- 3.52	**No**
	3.39 [.495]	72.55	62.41	Yes	3.57	3.47-4.57	3.03-4.06	**Inconclusive**

Note: [1] - LM test for serial correlation, [2] - AIC – Akkaike Information Criterion, [3] - SBC – Schwartz Bayesian Criterion, [4] – Time trend included in the underlying unrestricted error correction model, [5] - Critical bounds (lower and upper) from Pesaran et al. (2001), [6] – N/A (not applicable when there is serial correlation)

Table 1 provides some interesting insights concerning the selection of the number of lags and the presence of the long run relationship. Different lags were tested and according to the information criteria (AIC and SBC) a higher number of lags are preferred. However, we must disregard the information criteria in the presence of serial correlation in the model. The Lagrange Multiplier test for serial correlation (LM statistic in the table) suggests that the problem of autocorrelation is absent only with one lag included. This is a little surprising as autocorrelation is usually removed by increasing the number of lags and it is the opposite in our example. If we choose the higher number of lags, e.g. four lags, the computed F statistic would suggest a rejection of the null of no long run relationship, but there remains the problem of serial correlation and we are not confident with this result. We can only use the computed F statistic with one lag included as this specification does not suffer from autocorrelation. The F statistic thus computed suggests that the null cannot be rejected and we conclude that there is no long run relationship concerning the real money balances. If a time trend is included in the model, the F statistic falls within the critical band and the result is inconclusive. The above findings of non-rejection of the null preclude us from advancing to the second stage of bounds testing approach, i.e. from estimating the long run coefficients and

the associated error correction model. This finding also implies the possibility that there is no stable money demand function in Croatia.

In order to be more confident about our results we also test additional specifications of money demand function. First, we test our specification with nominal money balances. Then we test the initial specification (4) with including the change in the euro exchange rate instead of the euro exchange rate. Thereafter, we proceed by including in the model the interest rate on foreign currency deposits and the expected change in the exchange rate (calculated as a difference between interest rates on kuna and foreign currency time deposits). By using a similar approach as above we also estimate the ARDL model with the monthly data. The results are presented in Table 2, but in order to preserve space we only present the results for the number of lags that were found not to suffer from autocorrelation and the associated F statistic.

Table 2. Bounds testing – additional specifications of money demand on quarterly and monthly basis

MD specification	Number of lags tested (chosen)[1]	F statistic (F statistic with a trend included)	Rejection of H_0	Note
1. M1 – quarterly	5 – 1 (-)	-	-	Under all lags tested serial correlation is not removed
2. M1/P – quarterly (change in the ER)	4 – 1 (2, 1, 1t)	0.31712 0.92567 (3.6126)	No No (Inconclusive)	Serial correlation removed with 2 and 1 lags included; also with 1 lag and trend included
3. M1/P – quarterly (expected change in the ER with i)	4 – 1 (1)	1.1815 (3.2606)	No (Inconclusive)	Only with one lag included serial correlation removed (with trend not removed)
4. M1 – quarterly (expected change in the ER with i)	4 – 1 (-)	-	-	Under all lags tested serial correlation is not removed
5. M1 – quarterly (expected change in the ER with i^*)	4 – 1 (-)	-	-	Under all lags tested serial correlation is not removed
6. M1 – monthly	12 -1 (3t, 2, 2t, 1, 1t)	(3.5053) 3.1690 (3.1348) 2.5619 (2.3212)	(Inconclusive) Inconclusive (Inconclusive) Inconclusive (No)	Serial correlation removed with different lags
7. M1/P – monthly (EURO exchange rate)	12 -1 (9, 3t, 2, 2t, 1, 1t)	0.79877 (3.2049) 1.8390 (3.2652) 2.0272 (2.6755)	No (Inconclusive) No (Inconclusive) No No	Serial correlation removed with different lags
8. M1/P – monthly (change in the ER)	12-1 (10, 10t, 6, 4, 4t, 2, 2t, 1, 1t)	2.0311 (2.5897) 0.77554 1.4364 (1.5687) 1.7623 (1.7268) 2.0152 (1.8190)	No (in all cases)	Serial correlation removed with different lags
9. M1/P – monthly (expected change in the ER and i)	12 -1 (-)	-	-	Under all lags tested serial correlation is not removed
10. M1/P – monthly (expected change in the ER and i and i^*)	12-1 (10, 10t, 2, 2t)	1.1646 (1.0771) 1.3085 (1.3119)	No (in all cases)	Serial correlation removed with different lags
11. M1/P – monthly (expected change in the ER and i^*)	12-1 (9, 9t, 2, 2t)	0.85103 (0.91145) 1.1798 (1.4188)	No (in all cases)	Serial correlation removed with different lags

Note: [1] – different lags are tested (testing down procedure); a certain lag is chosen if the specification does not suffer from serial correlation and the associated F test is reported, t means that a trend was included in the estimation); Critical bands – upper and lower bound are (2,86-4,01) at 5% and (2,45- 3,52) at 10% without a trend included and (3,47-4,57) at 5% and (3,03-4,06) at 10% with a trend included.

As the above table contains a great deal of information we will go step by step explaining one row at the time (every row represents a different specification of money demand).

Row 1 – The demand for money is estimated using the nominal money balances and including the logarithm of the index of consumer prices in the model, at the same time dropping the inflation rate. Under all lags (1-5) serial correlation was not removed and therefore the F statistic is not reported and we cannot draw inferences about the presence of long run relationship.

Row 2 – The demand for real money balances is estimated by substituting the euro exchange rate with the change in it. Serial correlation is removed with 2 and 1 lags (also 1 lag and trend included), but the computed F statistic suggest that the null hypothesis cannot be rejected.

Row 3 – The demand for real money balances is estimated by including in the model the expected change in the exchange rate. Serial correlation is absent with only one lag included, but the F statistic is lower than the lower critical band and we cannot reject the null of no long run relationship. If a time trend is included in the model, the F statistic increases, but it falls within the critical band and the result is inconclusive.

Row 4 and Row 5 – The specifications combining the expected change in the exchange rate with either the interest rate on kuna or foreign currency time deposits suffer from serial correlation and we cannot use the underlying ARDL model to draw conclusions.

Row 6 – The demand for money is estimated on monthly basis with the index of industrial production instead of GDP and the euro exchange rate. Under this specification we use the nominal money balances and include the logarithm of the index of consumer prices in the model, at the same time dropping the inflation rate. The computed F statistics suggest either rejecting the null or the result is inconclusive.

Row 7 – The demand for real money balances is estimated on monthly basis. Testing down procedure suggests different lags can be used for removing the problem of serial correlation. However, whichever number of lags is included, in no case the null cannot be rejected and we conclude there is no long run relationship.

Row 8 – The demand for real money balances is estimated by substituting the euro exchange rate with the change in it. Serial correlation is removed with different lags (with and without a trend included in the specification) and the associated F statistics are reported. These results suggest that the null hypothesis of no long run relationship cannot be rejected.

Row 9 – The demand for real money balances is estimated with the expected change in the exchange rate and the interest rate on kuna deposits. Since serial correlation cannot be removed, we cannot proceed by computing the F statistic and hence no inference is drawn.

Row 10 – The demand for real money balances is estimated with the expected change in the exchange rate and the interest rate on both kuna and foreign currency deposits. The F statistic computed from estimations that are free of serial correlation is lower than the lower bound and we cannot reject the null.

Row 11 – The demand for real money balances is estimated with the expected change in the exchange rate and the interest rate on foreign currency deposits. The F statistic computed

from estimations that are free of serial correlation is lower than the lower bound and hence we cannot reject the null.

If we would summarise the findings from tables 1 and 2, the general conclusion is that there is no evidence for rejecting the null hypothesis of no long relationship. In a few cases the evidence is inconclusive. We have tested different specifications of money demand and no cointegrating relation has been found. This precludes us from proceeding to the second stage of the bounds testing procedure. Therefore, we cannot obtain either the long run coefficients or the error correction model. This further implies that by using the bounds testing technique we cannot empirically agree on the determinants of money demand in Croatia and cannot test the currency substitution hypothesis. Our findings also suggest that there is no stable money demand function.

A word of caution is required as to the econometric technique applied. As the bounds testing approach is a single equation approach perhaps it misses some information that is specified within a system approach like Johansen approach. Also, since previous studies reported the finding of a long run money demand in Croatia, we take our results with some reservation. One possible explanation for previous findings reported in Payne (2003)[1], which also used the ARDL approach, is that it might have ignored the serial correlation problem and used the information criteria which also in our study point to a number of lags that results in an F statistic suggesting the rejection of the null. However, since Pesaran et al. (2001) clearly state that absence of serial correlation is a precondition for using the bounds testing procedure, we stick to our approach that serial correlation must be removed before proceeding and hence rely on our findings. In order to reduce uncertainty related to our results and the applied technique we employ the Johansen approach to co-integration and check as to whether it supports the findings obtained by using the bounds testing approach.

7.3.2. Money demand estimation using the Johansen approach

The Johansen approach to co-integration is used in this sub-section to complement our analysis from previous subsection. We first check the data for unit roots and then proceed by testing the presence of long run relationships using alternative specifications of money demand.

Different procedures are used to test the order of integration of our series. First, we employ the simple DF and ADF tests for unit roots (lag order determined using the information criteria AIC and SBC) and present the results in column 2 of Table 3 As the DF/ADF tests sometimes provide mixed evidence, we supplement these tests with the Dolado-Enders sequential procedure and report our results in column 3. Column 4 presents the results obtained by a recently developed DF-GLS test for unit roots. Table 4 has got the same structure, but the unit root tests are applied to monthly data.

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[1] We have contacted the author but he was not able to supply information on either the number of lags included or on which basis he made his decision concerning the number of lags.

Table 3. Unit root tests (quarterly data)

Variable	Order of integration suggested by different tests		
	Simple DF/ADF test (without and with time trend)	Dolado-Enders sequential procedure	DF-GLS test
LRM1AD	I(1); I(1)	N/A	I(1)
LRGDPAD	I(1); I(1)	N/A	I(1)
LIPAD	I(1); I(1)	N/A	I(1)
i	I(1); I(0)	I(0)	I(1)
i*	I(1); I(0)	I(1) – problem with SC	-
π	I(1); I(1)	N/A	I(1)
LEURO	I(1); I(1)	N/A	I(1)
EDER	I(1)/I(0); I(0)	I(0)/I(1) – problem with diagnostics	-

Table 4. Unit root tests (monthly data)

Variable	Order of integration suggested by different tests		
	Simple DF/ADF test (without and with time trend)	Dolado-Enders sequential procedure	DF-GLS test
LRM1SA	I(1); I(1)	N/A	I(1)
LIPSA	I(1); I(0)	I(1)	I(1)
i	I(1); I(1)	N/A	I(1)
i*	I(1); I(0)	? (problem with diagnostics)	I(1); I(0)
π	I(1); I(1)	N/A	I(1)
LEURO	I(1); I(1)	N/A	I(1)
EDER	I(1)/I(0); I(0)	? (problem with diagnostics)	I(1); I(0)

The results presented in the above tables suggest that in most cases the considered variables are integrated of order one, as required for implementation of Johansen procedure. However, there are a few cases in which the tests give contradictory results, e.g. the simple DF/ADF tests suggest that on basis of quarterly data domestic interest rate might be both I(0) and I(1) depending upon the inclusion of the time trend in the ADF test. In the cases where the DF/ADF test gives mixed evidence we run the Dolado-Enders sequential procedure using a testing down approach and choosing a model with the best diagnostics. Within this procedure we test the significance of the time trend and intercept in the ADF model if required and determine the order of integration of the variable in question. However, when running these regressions "by hand" we encountered serious problems with the diagnostic tests, especially with serial correlation. As a consequence we take the obtained results with some caution. Even if we ignore the problems with diagnostics, the evidence seems mixed for interest rates on foreign currency deposits and expected change in the exchange rate. When using the monthly data, we encountered problems with all the diagnostics and therefore the results from Dolado-Enders procedure are not reported. In order to provide a stronger ground against which to decide about the order of integration of the variables, in column 4 we present the findings from the DF-GLS test for unit roots. Harris and Sollis (2003) suggest that this test has higher power as compared to the other tests, but there still remains a general concern about the power of any unit root test and we should be careful when drawing inferences. After gathering all the evidence we decide to treat all the variables except the expected change in the exchange rate (EDER) and interest rate on foreign currency deposits (i*) as I(1). Due to a requirement that variables need to be I(1) to be allowed to enter the Johansen procedure, these variables will not be included in the testing procedure (in the cointegrating vector).

In what follows we present the results for different specifications of money demand by applying the Johansen approach. At the outset, this approach requires the selection of order of the underlying VAR (Vector Autoregression) model, as well as deciding in what form to include the intercept and time trend in the model. Hence, we report that we have used the following:

a) **The order of VAR model** is decided upon the assembled evidence on diagnostics from different orders tested, giving preference to that order which best satisfies the diagnostic tests regarding serial correlation, functional form, normality and heteroscedasticity with priority given to the LM test for serial correlation.
b) **The Pantula principle** is applied to determine as to whether and in which form (restricted/unrestricted) intercept and time trend should be included in the analysis. This procedure is also used to determine the number of co-integrating vectors, which is then used for deriving the long-run estimates of the determinants of money demand and different error correction models.

When we apply the steps outlined above to the quarterly money demand which is specified as a function of real GDP, domestic interest rate, inflation rate and the euro exchange rate, we choose the order of VAR to be equal to one as the diagnostic tests of this model have better features as compared to VAR(2), VAR(3) and VAR(4) which we have also tried. The Pantula principle applied suggested the use of option 3 of the model which allows for unrestricted intercepts and no deterministic trends. It also suggested that there is one co-integrating vector. However, when the long run estimates were calculated only real GDP was found to be significant, whereas the other variables were not significant which suggested that they are "weakly" exogenous and not determined within the system. This finding makes sense as the exchange rate, interest rate and rate of inflation on theoretical grounds are expected to be exogenous within an exchange rate targeting monetary policy framework which is in place in Croatia. This further implies that these variables should be included in the system as "weakly" exogenous variables and hence we re-specify the model and apply the Pantula principle to this re-specified model. The analysis again recommended the use of option 3 (with unrestricted intercepts and no deterministic trends), but the number of co-integrating vectors was determined to be zero (the results are presented in Table 5). This suggests that there is no co-integration in the quarterly money demand and we cannot proceed by obtaining the long run estimates or the error correction model.

Table 5.   Testing for co-integration (Johansen ML procedure with unrestricted intercepts and no trends in the VAR; Order of VAR = 1)

Null hypothesis	Alternative hypothesis	LR test based on maximal eigenvalue of the stochastic matrix	Critical values (95%; 90%)	Alternative hypothesis	LR test based on trace of the stochastic matrix	Critical values (95%; 90%)
r = 0	r = 1	20.29	24.22; 21.67	r >= 1	23.09	33.35; 30.37

We test a similar model of money demand, but this time using the monthly data and the industrial production index instead of GDP as a scale variable. The order of VAR to be equal to two is chosen as the diagnostic tests of this model have better properties than VAR(1), VAR(3) and VAR(4) which we have also tried. We also report that the application of the Pantula principle suggested the use of option 3 (unrestricted intercept and no trend) and one

co-integrating vector pointing to the presence of co-integration (the results are presented in Table 6).

Table 6. Testing for co-integration (Johansen ML procedure with unrestricted intercepts and no trends in the VAR; Order of VAR = 2)

Null hypothesis	Alternative hypothesis	LR test based on maximal eigenvalue of the stochastic matrix	Critical values (95%; 90%)	Alternative hypothesis	LR test based on trace of the stochastic matrix	Critical values (95%; 90%)
r = 0	r = 1	37.76	33.64; 31.02	r >= 1	84.07	70.49; 66.23
r <= 1	r = 2	22.53	27.42; 24.99	r >= 2	46.31	48.88; 45.70

However, when obtaining the long run estimates (the results are reported in Table 7), we find that none of the variables is large in relation to its standard error, meaning they are not significant which contradicts the above finding of co-integration. If there is a co-integrating vector at least some of the variables should be significant. Therefore, we conclude that we cannot find evidence that would support a possibility that there is a long run and stable money demand in Croatia.

Table 7. Estimated cointegrating vector with one exactly identifying restriction (coefficients are normalised on real money balances)

	LRM1SA	LIPSA	i	INF	LEURO
Coefficient	-1.0000	6.6258	-0.0017	-0.0348	0.8397
Standard errors	none	3.8793	0.0949	0.0323	2.3738

Unlike in the bounds testing procedure, alternative specifications of money demand that would include the expected change in the exchange rate or interest rates on foreign currency deposits cannot be tested as these variables are not integrated of order one, as required by the Johansen approach to co-integration.

It seems that our findings from applying the bounds testing approach are also supported by the Johansen approach. We cannot find evidence that there is co-integration and a stable money demand function. Our analysis thus provides different conclusions concerning the demand for narrow money in Croatia. Previous studies have found stable money demand functions and specified its determinants using the empirical analysis. These studies have used a shorter time period and an explanation for different findings might lie in that fact. With a longer time period available we applied two different estimation techniques using both monthly and quarterly data, but no clear evidence for co-integration has been found. Therefore, we conclude that there is no stable money demand in Croatia.

8. CONCLUDING REMARKS

This paper has embarked on the analysis of money demand in the transition environment both on theoretical and empirical grounds. After reviewing the main theories of money demand, a model of money demand is offered as to account for the specific features of the transition background. This model, building on the portfolio balance framework, argues that foreign

variables, of which the exchange rate in particular, should be considered as determinants of demand for money. Thus, the conventional model of money demand which takes into account a scale variable and domestic interest rate is supplemented by additional opportunity cost variables such as the expected exchange rate depreciation and foreign interest rate (or interest rate on foreign currency deposits). Since inflationary pressures have been considerable during transition, the model also allows for the impact of inflation on money demand.

The above model is then empirically estimated for Croatia. In the empirical analysis we employ two different co-integration techniques, the bounds testing approach and Johansen approach to co-integration. Our analysis is conducted using both monthly and quarterly data and concentrating on narrow money balances (M1). The empirical investigation reveals that there is no co-integration, i.e. no long run equilibrium relationship within money demand framework. This further implies there is no stable money demand in Croatia. This finding is in contrast to previous studies on money demand in Croatia which reported stability of money demand along with long run estimates and error correction models. Our study covers a longer time period than the previous studies and combines different econometric techniques which adds to its reliability, especially if having in mind that we have discovered a few inconsistencies in the previous studies related to the application of econometric techniques or the choice of variables included in the model. The latter refers to the choice of scale variable and the exchange rate. Unlike previous studies, we use real GDP as a scale variable (when using quarterly data) and also try the expected change in the exchange rate. Despite using different specifications of money demand we do not find evidence for rejecting the null hypothesis of no long run relationship and conclude there is no stable demand for narrow money balances. However, this finding comes as no surprise in the presence of currency substitution. More stability might be expected in broader monetary aggregates. The model developed in this paper allows for an empirical investigation of those aggregates or some components of it. Therefore, a similar framework and econometric methodology can be used to empirically investigate the demand for broader money and demand for foreign currency deposits in Croatia, but this remains to be done in future research.

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DIFFERENCES IN DETERMINANTS OF ENTREPRENEURSHIP AMONG SLOVENIA AND CROATIA IN INTERNATIONAL CONTEXT

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1. INTRODUCTION

Davidsson's (2004) somewhat stylised finding is that, according to the entrepreneurship determinants, entrepreneurial activity originates in three waves. The first wave is composed of *ability, need and opportunity for entrepreneurship*, which are objective determinants in a particular economy and could not be changed rapidly. This wave is then transformed into second wave, which are perceptual determinants, composed of *perceptive ability, perceptive need, and perceptive opportunity for entrepreneurship*. All three components of the wave of perceptual determinants are then transformed into the third wave of entrepreneurial motivation, which later results in entrepreneurial activity. Like the transformation of the wave of objective determinants to the wave of perceptual determinants, the transformation to this third wave takes place in different economies in different ways. This is what leads to the concept of the "efficiency" of transformation of one of the waves of determinants to another.

In this paper, the authors investigate the "efficiency" of the transformations of objective determinants to perceptual determinants and from perceptual determinants to entrepreneurial motivation in two neighbourhood countries, Slovenia and Croatia, in comparison to other Global Entrepreneurship Monitor (GEM) countries in year 2004. Accepting that entrepreneurship varies widely across countries (Reynolds et al., 2001; Blanchflower, 2004; Grilo and Irigoyen, 2005; Acs et al. 2005), the authors assume that "efficiency" of transformations is largely determined by characteristics of each country's environment.

The DEA (Data Envelopment Analysis) model was adopted to measure the efficiency of transformations, and multivariate and regression analysis was applied to estimate the impact of environmental determinants on these transformations, which is to our knowledge rather a new approach to the analysis of entrepreneurship determinants a literature.

2. THEORETICAL AND EMPIRICAL BACKGROUND

Economics literature contains a wide range of theories and explanations of entrepreneurial determinants (Brock and Evans, 1989; Gavron, Cowling, Holtham and Westall, 1998; OECD, 1998; Blanchtlower, 2000; Blanchtlower, 2004; Wennekers, Uhlaner and Thurik, 2002; Arenius and Minniti, 2005). However, there is no single theory of entrepreneurship, although more and more theory-driven research is emerging (Davidsson, 2006).

The largest body of economics literature deals with the question of what affects an individual's decision to become an entrepreneur. Numerous researchers have established that, on the individual level, age, gender, race, education, earnings, capital assets, previous professional experience, marital status, professional status of parents, and other factors are important drivers (Douglas and Shepherd, 2002; Wagner, 2003; Blanchflower, 2004; Grilo and Thurik, 2004; Grilo and Irigoyen, 2005). Further, research has shown that men are more likely to be engaged in the entrepreneurship process than are women (Minniti, Arenius and Langowitz, 2005; Tominc and Rebernik 2006), and that individuals between 25 and 45 years of age are most likely to be entrepreneurs (Reynolds, Hay and Camp, 1999). Blanchflower, Oswald and Stutzer (2001) and Grilo and Irigoyen (2005) found that increased age has a generally negative influence on entrepreneurship, although Delmar and Davidsson (2000) found empirical evidence showing a positive relationship between entrepreneurship and age. Uhlaner and Thurik (2004) found out that higher education is related to a lower self-employment rate, but Blanchflower (2004) argued that this is valid in Europe while, in the US, the relationship between the level of education and the self-employment rate is positive; the empirical evidence of Davidsson and Honig (2003) and Delmar and Davidsson (2000) also pointed to a positive relationship between entrepreneurial activity and education.

Other research has suggested that risk tolerance would increase the probability of self-employment (Grilo and Irigoyen, 2005). This finding is connected to the research of Kihlstrom and Laffont (1979) and Parker (1997), who showed that risk aversion is the central determinant of entrepreneurship. Grilo and Irigoyen (2005) argued that perception of the complexity of the administrative procedures involved in establishing a company has a negative influence on an individual's decision to become an entrepreneur but could not find evidence that the perception of financial constraint influences entrepreneurship. Thurik and Grilo (2005) pointed to specific determinants of entrepreneurship, based on employment status (wage, part-time, characteristics of the workplace), financial situation (household income, home ownership, number of persons in the household), experience (professional background, current work), minority behaviour, immigrant behaviour, past failures, government, and so on. The reasons for differences in entrepreneurship activity among countries could also be found in the differences in demographic, cultural and institutional characteristics (Hofstede, 1991; Blanchflower, 2000; Verheul, Wennekers, Audretsch and Thurik, 2002).

While there is no single theory of entrepreneurship, researchers have tried to devise a system of the determinants of entrepreneurship. Davidsson's approach (2004) classified the determinants into *objective determinants* (ability, need and opportunity), *perceptual determinants* (perceptive ability, need, and opportunity) and *entrepreneurial motivation* which leads, finally, to *entrepreneurship*. Davidsson's approach was confirmed by Arenius and Minniti (2005), whose empirical evidence showed that perceptual variables are significantly correlated with new business creation, and that nascent entrepreneurs rely significantly on subjective and often biased perceptions, rather than on objective expectations

of success. More specifically, confidence in one's skills and abilities, fear of failure, knowing other entrepreneurs, and opportunity perception could be perceptual variables that have an impact on new business creation across countries.

This view has its origin in early research into how an individual recognises opportunities for business creation (Shane and Ventkataraman, 2000). Arenius and Kavalainen (2006) discussed the distinction between actual skills (abilities) and opportunities on one hand, and perception of skills and opportunities on the other, referring to Ajzen (1991) and Shapero and Sokol (1982). Arenius and De Clercq (2004) pointed to education level and the characteristics of one's residential area as determinants of how individuals perceive entrepreneurship opportunities. Olomi et al. (2001) studied the process by which people who start business because of economic necessity evolve into serious entrepreneurs and argued that the most important catalyst in the transition from entrepreneur as economic necessity to entrepreneurial commitment are business success; personal resources like skills, experience and other competencies; the firm's resources; number and quality of networks; personal wealth; and environment. All of these factors accelerate or hinder the transformation from entrepreneur-of-necessity to entrepreneur-of-choice. Krueger (1998) also discussed the relationship among environment, opportunities and perception of opportunities. Discussions of the relationship among opportunity, the individual's perceptions and the role of risk in this relationship caused two fundamental theories of entrepreneurship in economics literature - discovery theory and creation theory - to emerge (Alvarez, 2005).

Other systems of entrepreneurial determinants also exist in the literature. While explaining regional differences in entrepreneurial activity in Germany, Sternberg (2005) classified entrepreneurial determinants into three categories: personal (e.g., gender, age, education, experience, attitudes), macro-social environment or network (e.g. contacts with other founders, integration in personal network), and regional-contextual (general or start-up-related conditions). Henriquez et al. (2002) introduced the distinction between demand-side and supply-side entrepreneurial determinants, a classification also made by Thurik and Grilo (2005). On the demand side, technological developments—those which could be measured by an innovation index (Porter and Stern, 1999)—increase competition among new businesses. Further, a strong service-sector presence in an economy is often accompanied by a high level of entrepreneurship. On the supply side, factors that influence the level of entrepreneurship refer, in large part, to the size, spread and composition of the population; population growth, density and mobility; age structure; unemployment; and immigration. Unemployment can serve as a push factor for entrepreneurship at the micro-level, while, on the macro-level, a high level of unemployment in a depressed economy can also have a negative impact on opportunities for entrepreneurship. According to Henriquez et al. (2002), the level of nascent entrepreneurship is also influenced by macroeconomic policies such as taxation, labour market regulation, social security, income policy, corporate and bankruptcy legislation, deregulation and simplification in input-related policies. Also, income disparities increase self-employment.

3. THE MODEL AND VARIABLES

3.1. The model of entrepreneurship determinants

In order to analyse the impact of determinants on entrepreneurship in Slovenia, Croatia and other selected GEM countries, we adopted the model of reciprocal influence of various entrepreneurial determinants, following the example of Davidsson (2004). The model consists of three groups of variables indicating (i) objective determinants of entrepreneurship, (ii) perceptual determinants of entrepreneurship, and (iii) entrepreneurial motivation and entrepreneurial activity. The framework of the model and the specification of variables are presented in Table 1. The framework and specification of variables are based on the researches summarised in Chapter 2 of this paper.

Table 1. Model and specification of determinants of entrepreneurship

Objective determinants (Characteristics of economy)	Perceptual determinants	Level of motivation and entrepreneurial activity
Objective ability: • percentage of the total population between 18 and 64 years of age • percentage of male population • gross enrolment ratio in secondary education as % of relevant age group • gross enrolment ratio in post-secondary education as % of relevant age group • public expenditure on education as % of GDP	**Perceptive ability:** • Respondents were asked whether they believe they have the knowledge, skill, and experience required to start a new business.	**Entrepreneurial motivation:** • Opportunity TEA index - number of adults 18-64 years old per 100 involved in opportunity entrepreneurship through a nascent firm or new firm or both. • Necessity TEA index - number of adults 18-64 years old per 100 involved in necessity entrepreneurship through a nascent firm or new firm or both.
Objective need: • ratio of total income received by the 20 % of the population with the highest income to that received by the 20 % of the population with the lowest income • GINI index • % unemployment rate • % unemployment rate / % real GDP growth • ratio between female and male earned income • average gross annual earnings p.c.* • net migration	**Perceptive need:** • Respondents were asked whether they believe most people in their country consider starting a new business a desirable career choice.	**Entrepreneurial activity:** Entrepreneurial activity (TEA) index - early-stage entrepreneurial activity Entrepreneurial motivation.
Objective opportunity: • Number of patents per 100,000 inhabitants • Gross domestic expenditure on R&D in % of GDP • transfer of technology from universities to firms • business expenditure in research and development • total expenditure on research and development per capita • % of total exports services	**Perceptive opportunity:** • Respondents were asked whether they thought that good opportunities for starting a business would exist in the area where they lived in the next 6 months following the survey.	

Source: GEM database, Heritage Foundation (2005), World Bank, World Economic Outlook Database, IMD, International database of US Bureau of the Census, UNESCO Institute for Statistics, Eurostat, Bureau of Statistics of Croatia, own calculations*.

Data on perceptive determinants of entrepreneurship, entrepreneurial motivation and entrepreneurial activity used in the analysis are from the GEM project. Using population samples, GEM project estimates the prevalence rates of nascent and new businesses across

several countries. The data used in this paper are based upon representative samples of randomly selected adult populations, ranging from 1,000 to almost 27,000 individuals, which were surveyed in 34 GEM countries in 2004.

National data on the countries' characteristics were obtained from international data sources such as the World Bank, IMD, Heritage Foundation, World Economic Outlook Database, International database of US Bureau of the Census, UNESCO Institute for Statistics, Eurostat and Bureau of Statistics of Croatia. Selection of observed countries depended on the availability of data.

We hypothesised that all in Table 1 presented variables affecting the objective determinants of entrepreneurship have a positive influence on entrepreneurial activity.

The GEM survey allowed us to identify the following independent *perceptual variables*, which make up the second wave of entrepreneurial determinants:

- *Perception of ability:* To measure confidence in their skills, respondents were asked whether they believe they have the knowledge, skill, and experience required to start a new business.

- *Perception of need:* Respondents were asked whether they believe most people in their country consider starting a new business a desirable career choice.

- *Perception of opportunity:* Respondents were asked whether they thought that good opportunities for starting a business would exist in the area where they lived in the next 6 months following the survey.

How an individual answers these three questions contributes significantly to the individual's entrepreneurial "mindset" (Arenius and Minniti 2005, Koellinger et al., 2005). Presumably specified perceptual variables of entrepreneurship have a positive influence on entrepreneurial activity.

Data on entrepreneurial activity and entrepreneurial motivation were also taken from the GEM project. The GEM estimates the overall level of involvement in *early-stage entrepreneurial activity* by calculating the total entrepreneurial activity (TEA) index as the sum of nascent entrepreneurs (people in the process of starting a new business) and new business owners. We used the 2004 TEA index as the variable for entrepreneurial activity in observed countries, so the prevalence rates of early-stage entrepreneurial activity in each country were equal to the sum of nascent entrepreneurs (those individuals between 18 and 64 years of age who have taken some actions to create new businesses) and new businesses (owner-managers of firms who have paid wages for more than three months and fewer than 42 months).

The GEM survey also allowed us to identify two main *motivators for entrepreneurial behaviour*: wanting to exploit a perceived business opportunity (opportunity entrepreneurs) and being pushed into entrepreneurship because all other options for work are either absent or unsatisfactory (necessity entrepreneurs). The GEM identified both groups by asking all respondents involved in entrepreneurial activity whether they were involved because of a business opportunity or because they have no better employment alternative. The first motive is measured by the Opportunity TEA Index, where opportunity is the major motive (number

of adults 18-64 years old per 100 involved in opportunity entrepreneurship through a nascent firm or new firm or both). The second motive is measured by the Necessity TEA Index, where necessity is major motive (number of adults 18-64 years old per 100 involved in necessity entrepreneurship through a nascent firm or new firm or both).

We further hypothesised that *"efficiency" of transformations* from one wave of determinants to another could be explained by several independent variables, indicating environmental characteristics. Environmental variables hypothesised to influence this efficiency include the index of economic freedom, real GDP in PPP, GDP growth (in constant national currency) and ranking size of black economy. We argue that two additional variables point to important characteristics of an environment where individuals make decisions about starting new businesses, both of which are reflected in the following questions to all of the GEM respondents: (i) whether they believe that most people in their country would prefer that everyone had a similar standard of living, and (ii) whether they believe those successful at starting a new business in their country have a high level of status and respect. Those two variables indicate the cultural context in which individuals make decisions about their career choices.

3.2. International benchmarking of entrepreneurship

One of the main hypotheses of this paper is that the "efficiency" of transformation of objective determinants of entrepreneurship to perceptive determinants, and the transformation of perceptive determinants into entrepreneurial motivation and activity can be measured by Data Envelopment Analysis (DEA) (e.g., Zhu, 2003).

Therefore, DEA is employed both to assess the "efficiency" of these transformations by using constant returns to scale (CRS) input-oriented DEA models, and to identify countries that can serve as benchmarks for other countries seeking entrepreneurship improvements. Since DEA is a linear programming method which examines the relationship between inputs and outputs of the analysed process, it can be used to study the relationship between objective determinants of entrepreneurship and perceptual determinants of entrepreneurship and the relationship between perceptual determinants and entrepreneurial motivation and activity. The research questions of our study lead us to measure only technical inefficiency.

In order to investigate the "efficiency" of both transformation processes, we employed two DEA models. The DEA I model estimates the transformation "efficiency" of the first wave of entrepreneurship determinants into the second wave of determinants. The input variables of this model are the indicators of objective characteristics of economy specified above, while the output variables are the indicators of perceptual determinants of entrepreneurship, also specified above. The DEA II model assesses the transformation "efficiency" of this second wave of determinants into entrepreneurial activity and motivation. The perceptual determinants' indicators become input variables of the DEA II model, and indicators of entrepreneurial activity and motivation are the output variables.

Finely, we aimed to explain "the efficiency" of the transformations by use of several variables related to environmental characteristic—i.e., economic freedom, economic development measured by real GDP, economic growth measured by GDP growth, size of black economy, and the cultural context of a country measured by perceptions of entrepreneurship with respect to standard of living and status. In order to analyse the effect of environmental variables on transformational efficiency, we employed ANOVA tests and regression analysis.

4. RESULTS AND DISCUSSION

1. The availability of data allows us first to analyse *the transformation of objective abilities to perceptual abilities determinants of entrepreneurship* for 26 countries participating in the GEM research project in 2004. Among them are 18 European countries. The analysis indicates the transformation of objective abilities to perceptual abilities of individual decision to start new business is "efficient" in two countries, in Germany and Uganda, while the transformation "efficiency" of the remaining countries lagged behind on average by 44 percent. The finding suggests that in Germany and Uganda, given objective characteristics of economy, e.g. number of people comprising the population of 18-64 years old, percentage of male population, educational level and public expenditures on education, create to the largest extent the perceptions that individuals have the abilities required to start a new business. In comparison to those two "efficient" countries, other countries in a sample, i.e. "inefficient" countries, are less capable of transforming post-secondary educational level and secondary education level as characteristics of economy to determinant which is perceived by individuals to influence entrepreneurship positively. On the other hand, the share of public expenditures on education in GDP and the percentage of male population are objective characteristics contributing the most to the creation of perceptions about abilities of individuals required to become entrepreneurs in analysed countries.

Slovenia ranks 14 by transformation efficiency out of 26 countries, while Croatia ranks 11. This finding suggest that on the basis of given objective circumstances in their country population in Croatia creates higher perceptions about their abilities required to start a new business than population in Slovenia. The share of public expenditures on education in GDP and the percentage of male population are objective circumstances which contribute the most to the creation of perceptions about perceptive abilities both in Slovenia and Croatia, as well as in other countries. However, perceptions about abilities of individuals required to become entrepreneurs differ significantly among both countries. In Slovenia, population creates perceptions that individuals have abilities required to start a new business to the smaller extent on public expenditures on education than population in Croatia. In Croatia, on the other hand, perceptions of ability for entrepreneurship are to the smallest extent created on the share of population in secondary education and on the share of population in post-secondary education than in Slovenia. The difference between Slovenia and Croatia with regard to transformation of objective circumstances to perceptive abilities is also confirmed by the fact that in creating perceptions about abilities for entrepreneurship Slovenia should follow the example of Germany as benchmark, while Croatia should follow the example of Uganda. This finding indicates that in Slovenia the objective circumstances, which are important for creating perceptions about abilities of individuals to become entrepreneurs, are alike objective circumstances in Germany with regard to their relative structure, while objective circumstances in Croatia are similar as in Uganda.

When considering transformation of objective abilities to perceptive abilities required to start a new business in 18 European countries, three countries are measured to be "efficient": Greece, Germany and Croatia. However, other countries lag behind in efficiency for only 25 percent on average, indicating that objective circumstances that are important for entrepreneurship are significantly more homogeneous in Europe than worldwide. "Inefficient" countries could increase perceptions that individuals have knowledge, skills and experiences to start a new business by introducing such objective characteristics that are alike objective characteristics in Greece. This finding indicates that European countries are alike with regard to the structure of objective determinants of entrepreneurship, e.g. the number of people

comprising the population of 18-64 years old, percentage of male population, educational level and public expenditures on education. Those objective ability determinants of entrepreneurship in "inefficient" countries lag behind their values in "efficient" countries for a similar amount: for 21-26 percent. Public expenditures for education are the least important for creating perceptual abilities required to start a new business in European countries,

Among European countries Croatia is, therefore, one of "efficient" countries with regard to the transformation of objective abilities to perceptual abilities. Slovenia lags behind in efficiency for about 22 percents on average. An interesting finding is that the relative importance of the share of public expenditure on education for creating perceptions about abilities required to start a new business with regard to other objective determinants of entrepreneurship is smaller in Slovenia than in Croatia.

2. More countries, i.e. Greece, Netherlands, Belgium, Spain, Hungary, Italy, Norway, Poland, Portugal, Ireland, Croatia and Slovenia, are measured to be "efficient" in *transformation of objective determinants of the needs for entrepreneurship to perceptive needs for entrepreneurship*. Availability of data allows us to analyse this type of *transformation* only for 18 European countries. Other six countries lag behind in efficiency on average for 24 percent. This finding suggests that the process of creating the perception of the need for entrepreneurship is highly country-specific. We can conclude that the combination of income disparity, unemployment, wages, migration and relative wages of females create perception with equal strength in "efficient" countries, but are in different countries differently combined. In creating perceptions about objective determinants of the need for entrepreneurship, "inefficient" countries can follow the examples of Belgium and Netherlands as benchmarks. It appears that unemployment and average gross annual earnings per capita have the least effect on perceptive needs for entrepreneurship. The efficiency with which perceptions about objective needs for entrepreneurship are created on the basis of those two determinants of entrepreneurship is about 26 percents in "inefficient" countries. Net migrations are the most important for creating the perceptions about needs for entrepreneurship in analysed European countries.

Both Slovenia and Croatia are "efficient" when considering transformation of objective determinants of the needs for entrepreneurship to perceptive needs for entrepreneurship. This finding drawls our attention to the fact that objective determinants of entrepreneurship, which are significant for creating perceptions about the needs for entrepreneurship, are different with regard to their structure in both countries. Slovenia could be as second ranking among countries in a sample example for several "inefficient" countries, i.e. Germany and Finland, in increasing perceptions about the needs for entrepreneurship in their countries. Although being "efficient" country, Croatia appears not to be a benchmark for any of "inefficient" European countries.

3. In our model the perception of opportunities for entrepreneurship could be created on the basis of the following countries objective circumstances: number of patents per 100 thousand inhabitants, gross domestic expenditure on R&D, business expenditure in R&D, transfer of technology from universities to firms and share of total export services. When analysing the transformation of those *objective opportunities of entrepreneurship to perceptive opportunities for entrepreneurship*, availability of data allows us considering only 16 European countries. The results suggest that countries which efficiently transform objective opportunities of entrepreneurship to perceptive opportunities for entrepreneurship are Belgium, Spain, Poland, Iceland, Finland and Slovenia. "Inefficient" countries could have

increased perception of entrepreneurship opportunities for 28 percents if they would have been able to assure that individuals would have perceived those objective circumstances as opportunities for entrepreneurship in the same way as their benchmark countries. To achieve higher "efficiency" in transforming objective opportunities to perceptive opportunities, "inefficient" countries could follow the example of Belgium, Spain, Poland and also Slovenia. The model also shows, in particular, that a large number of patents and high expenditure for R&D in country's industry structure does not contribute to higher perceptions about opportunities for entrepreneurship. On the other hand, transfer of technology from universities to firms contributes significantly to higher perceptions about opportunities for entrepreneurship.

Slovenia is one of the „efficient" countries when considering this type of transformation. Slovenian perceives objective entrepreneurial opportunities being important for entrepreneurship to a higher extent than Croatian. In creating perceptions of opportunities for entrepreneurship Croatia should follow the example of Poland as a benchmark. This finding indicates that the characteristics of objective opportunities for entrepreneurship in Croatia are similar than in Poland. Differently from Slovenian and people in other European countries, Croatian does not consider the share of total export services and share of R&D's expenditures in GDP in creating their perceptions about opportunities for entrepreneurship.

4. In investigating how perceptive ability, need and opportunity are transformed to entrepreneurial activity, the data allowed us first to analyse 34 GEM countries. Our findings indicate that Peru and Uganda make the best use of perceptive determinants for entrepreneurship. Other countries could have increased entrepreneurial activity by 59 percents if they would have convert perceptions about ability, need and opportunity into entrepreneurship in the same way as the "efficient" countries. With respect to encouraging entrepreneurial activity, the least exploited perception is that of the need for entrepreneurship: "inefficient" countries lag behind in efficiency for about 67 percent. It is evident that a weak transformation of this perceptive determinant to entrepreneurial activity leads to a low level of entrepreneurial activity in numerous countries. The U.S. ranks 8[th] out of 34 countries by efficiency of transformation of perceptive ability, need and opportunity to entrepreneurial activity and should follow the example of Peru. The analysis indicates that perceptions provoke opportunity entrepreneurship to a larger extent than necessity entrepreneurship. This finding drawls our attention to the conclusion that individuals become involved in necessity entrepreneurship for reasons that are not reflected in their perceptions about entrepreneurship.

Slovenia ranks at the very bottom of the GEM scale and should follow the example of Peru in transforming perceptive ability, need and opportunity to entrepreneurial activity. Croatia ranks 20[th] out of 34 countries. Slovenia and Croatia share the characteristics of transformation process of other GEM countries. However, Slovenia is more "efficient" than Croatia in creating opportunity entrepreneurship. On the other hand, in Croatia perceptual determinants only weakly influence the creation of opportunity entrepreneurship, but provoke necessity entrepreneurship to significantly larger extent than in Slovenia.

The analysis of transformation of perceptual determinants to entrepreneurial activity of 19 European countries shows that France, Hungary, Poland, Germany and Iceland can be utilized as benchmarks for improving entrepreneurship in other countries. European countries with "inefficient" transformation can follow the example of all "efficient" countries but Iceland. The analysis of all 19 European countries indicates perceptions of opportunity for entrepreneurship are a highly important determinant of entrepreneurial activity but its

influence on entrepreneurship activity is not significantly different from other determinants. The analysis of output targets indicates that European countries are weakest in nascent entrepreneurship.

Slovenia ranks 14[th] by this transformation, while Croatia ranks 6[th] out 19 European countries. Slovenia is among the most "efficient" countries in creating opportunity entrepreneurship in Europe, while Croatia is the least "efficient" European countries with regard to this type of entrepreneurship. Otherwise, in Croatia perceptive needs are the least exploiting perceptual determinants for entrepreneurship with regard to entrepreneurial activity.

5. Table 2 shows the "efficiency rankings" of selected European countries in transforming objective ability, need and opportunity for entrepreneurship (first wave) to perception of ability, need and opportunity for entrepreneurship (second wave), and transformation of the second wave to entrepreneurial activity (third wave). The selection of country is limited by data availability.

Table 2. Ranking of selected GEM countries by transformation efficiency of entrepreneurship determinants' waves.

	Transformation from first wave to second wave			Transformation from second wave to third wave	Average rank
	Ability	**Need**	**Opportunity**	**TEA index**	
Belgium	11	3	1	18	8,3
Germany	2	15	16	4	9,3
Denmark	13	14	11	16	13,5
Spain	8	4	2	15	7,3
Finland	17	18	5	14	13,5
France	15	16	14	1	11,5
Greece	1	1	7	7	4,0
Croatia	3	11	9	6	7,3
Hungary	18	5	15	2	10,0
Ireland	4	10	10	8	8,0
Netherlands	10	2	8	12	8,0
Poland	5	8	3	3	4,8
Portugal	7	9	12	13	10,3
Sweden	14	13	13	17	14,3
Slovenia	9	12	6	19	11,5

Source: Own calculations.

As the evidence suggests, the European countries can be classified into four groups. The first group consists of countries which are "efficient" in both transformations. Typical of this group are Greece, Poland, Ireland, Netherlands and Croatia. In those countries objective circumstances which are important for entrepreneurship create strong perceptions about abilities, needs and opportunities for entrepreneurship, which are later strongly reflected in entrepreneurial activity. The second group is composed of countries like France, Germany and Hungary, where perceptions of ability, needs and opportunities are strongly reflected in entrepreneurial activity, yet these perceptions do not grow efficiently from the objective determinants of entrepreneurship. The third group consists of countries where the objective determinants create strong perceptions about entrepreneurship, but these perceptions are not efficient in leading to entrepreneurship. Typical in this group are Belgium, Spain and

Slovenia. The last group is composed of countries where individuals do not perceive objective circumstances for entrepreneurship as advantageous for entrepreneurship, and even if they do, they do not actually start new businesses. Our evidence suggests that Finland, Sweden, Denmark and Portugal are in this group.

6. We can also explain the differences between countries in "efficiency" of transformation of one wave of entrepreneurship processes to another by considering certain characteristics of economies. The availability of data allows us to include in our model the index of economic freedom, the real GDP, size of black economy and GDP growth rate, and the cultural context of a country as variables indicating characteristics of economies. In order to investigate the influence of those variables on "efficiency" assessments we employed ANOVA tests and regression analysis.

Results of the ANOVA test indicate that the impact of real GDP on the process of creating perceptions about abilities required to start a new business (on a sample of 18 European countries), on the process of creating perceptions about the need for entrepreneurship (negative relationship) and on entrepreneurial activity of a sample of 34 GEM countries (negative relationship) and 19 European GEM countries is statistically significant (P=0,032; 0,016; 0,030; 0,037). Furthermore, when considering 26 European and other GEM countries, the impact of GDP growth rate on the process of creating perceptions of ability required to start a new business is positively statistically significant (P= 0,038).

Similarly, the results of the regression analysis on a sample of 18 European countries indicate statistically significant impact of real GDP on the process of creating perceptions of ability and perception of needs (negative relationship) for entrepreneurship (P= 0,090; 0,056) and statistically significant impact of GDP growth rate on early-stage entrepreneurship in case of 34 European and other GEM countries (P= 0,056) and in case of 19 European GEM countries (P= 0,074). The results of regression analysis indicate also statistically significant influence of cultural context of a country on the process of creating entrepreneurship. We found such positive influence measuring the cultural context with variable reflected in a question, whether respondents believe that most people in their country would prefer that everyone had a similar standard of living, in the case of the process of creating perceptions of ability (P= 0,042) in 26 European and other GEM countries and in the case of process of creating early-stage entrepreneurship (0,071) in 34 European and other GEM countries. We also found such influence measuring the cultural context with variable reflected in a question, whether respondents in 18 European countries believe those successful at starting a new business in their country have a high level of status and respect, in the case of process of creating perceptions of ability (P= 0,016). On generally, two conclusions could be drawn on the basis of those findings. First, high level of economic development, on the one hand, slows down the process of creating perceptions of needs for entrepreneurship and, on the other hand, speed ups early-stage entrepreneurship except in some cases. Second, cultural content in a country is significant for a creation of perceptions of ability required to start a new business.

Results of ANOVA and regression analysis allow us to explain certain differences among Slovenia and Croatia with regard to entrepreneurial processes. To sum up, the main differences in entrepreneurial processes among Slovenia and Croatia are the followings. First, the structure of objective determinants of ability for entrepreneurship in Croatia is more alike less developed countries in our sample of GEM countries than Slovenia. Second, in Slovenia population create strong perceptions about opportunities for entrepreneurship on the basis ob objective opportunities, while in Croatia population does not recognize and perceive

opportunities for entrepreneurship. Third, the impact of perceptual determinants of entrepreneurship (i.e. perceptions of abilities, needs and opportunities for entrepreneurship) on the stimulation of entrepreneurship is much weaker in Slovenia than in Croatia. Fourth, in Slovenia perceptions about entrepreneurship stimulate in particular the creation of opportunity entrepreneurship, while in Croatia perceptions about entrepreneurship stimulate in particular the creation of nascent entrepreneurship. The first and the later differences in entrepreneurial processes among Slovenia and Croatia have origin in the level of development in both countries. The origin of other differences could be not explained by the analysis of this paper.

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ANALYSIS OF EXCHANGE RATE BASED STABILIZATION EFFECTS IN CONTEMPORARY ECONOMIC PRACTICE

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1. INTRODUCTION

Available evidence for the theoretical and empirical analysis in exchange rate economics clearly suggests the significance of the macroeconomic ground in explaining the changes in real exchange rate. The theory of relative and absolute real exchange rate, the theory of the purchasing power parity, and the theory of the determination of exchange rates are empirically confirmed by the available data for industrial countries.

At the same time that the theoretical approaches and empirical tests were being developed for industrial countries, other theories developed trying to bridge the difficulties in the application of conventional theory in developing countries with imperfect institutions and market regulation. Seeing the exchange-rate-based stabilization syndrome as one of the most important relative exchange rate theory in developing countries, hereinafter we focus on the theoretical decomposition of the syndrome.

In comparison with stabilization programs in developed market economies, stabilization programs in developing countries with chronic inflation have some specific attributes. According to conventional wisdom, inflation can only be reduced at the cost of a short-term contraction in economic activity (Point year access of unemployment1). Available evidence

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[1] Point year access of unemployment is a quantitative measure of inflation overturn cost calculated by adding the percentages for all the years when the unemployment rate was elevated from the beginning of the stabilization period up to the return of the unemployment rate back to its natural level. It refers only to the cases in which the unemployment rate returns to its natural level.

for industrial countries has been taken to support the notion that disinflation is contraction inducing activity (Rebelo and Vegh 1995, p. 2).

Exchange rate based stabilizations have been performed in a great number of countries with high inflation rates over the past 40 years. In spite of a very large real exchange rate appreciation, economic activity expanded rapidly in the first years after the stabilization (Sobolev 2000, p. 30).

Countries that use the exchange rate as the nominal anchor in inflation stabilization programs experience a boom in economic activity (consumption, investment, and GDP expand), a large real exchange appreciation, a rise in the real wage growth rate, and deterioration in the external accounts (Kiguel and Liviatan 1992; Vegh 1992). The pattern of the macroeconomic events named - the Exchange rate based stabilization syndrome (ERBS).

Many authors have sought to explain these intriguing phenomena. The early work of Rodriguez (1982) and Dornbusch (1982) on the Southern Cone programs of the late 1970s emphasized the presence of sticky inflation. According to this hypothesis, under high capital a reduction in the rate of devaluation leads to a fall in nominal interest rates and, given sticky inflation, to a lower interest rate. This fall in the real interest rate causes an economic boom.

An alternative explanation is in the «temporariness hypothesis» Calvo (1986) and Calvo and Vegh (1993), which focuses on the effects of the lack of credibility. This hypothesis considers the case in which agents expect the inflation stabilization program to be reversed in the future. If money is needed to carry out transactions, a temporary reduction in nominal interest rates lowers the effective price of present consumption relative to the future and induces an initial consumption and output boom accompanied by an appreciated real exchange rate.

Several authors have emphasized the role of fiscal policy. In Helpman and Razin (1987), a reduction in the inflation tax generates a wealth effect, and thus a boom, due to the lack of Ricardian equivalence. Rebelo (1997) considers a scenario in which, in the absence of reforms, government expenditure increases, thus raising the present value of the resources that the government will eventually need to extract from the private sector through taxation or other means. The role of durable goods consumption has been stressed by De Gregorio, Guidotti, and Vegh (1994). Finally, the more recent literature has focused on the supply-side effects that may result from removing the inflationary distortion on labor supply (Roldos, 1993) or capital accumulation (Roldos 1995 and Uribe 1997).

In the second part of the paper stylized facts of the syndrome are analyzed within the framework of nine crucial topics. In the third part of the research four major theories which partially or totally explain the syndrome are explained. The last part of the paper analyzes empirical evidence on the syndrome.

2. CHARACTERISTICS OF THE EXCHANGE RATE BASED STABILIZATION

Since the late 1940s, many developing countries have endured long periods of chronic inflation.[2] Chronic inflation is characterized by high and persistent inflation. Unlike hyperinflation – which measures its duration in months and exhibits an explosive nature – chronic inflation is relatively stable and may last for decades. Countries adapt to life with high inflation by creating various indexation mechanisms in labor, goods and financial markets and by reducing the costs of inflation, tending to perpetuate the inflationary process. Thus, while large fiscal deficits typically constitute the «original sin» behind chronic inflation, accommodative monetary and exchange rate policies and widespread indexation explain the adaptation to the «life in sin» (Rebelo and Vegh 1995, p.5).

Getting rid of chronic inflation has proved to be a long and expensive process. Stabilization attempts have often failed bringing inflation back. Most major stabilization programs in countries with chronic high inflation have used the exchange rate as the main nominal anchor. Of the 13 major exchange rate based stabilizations in Argentina, Brazil, Chile, Israel, Mexico and Uruguay, half of the programs were heterodox, the other half being orthodox.[3] Whether successful or not, exchange rate based stabilizations in countries with chronic inflation have been characterized by a series of empirical regularities (Rebelo and Vegh 1995, p. 5; Sobolev 2000, p. 4-5).

The syndrome can be described by the nine most important exchange rate based stabilization regularities (Khamis 1996; Rebelo and Vegh 1995; Reinhart and Vegh 1995a; Kiguel and Liviatan 1992; Vegh 1992).

- Slow convergence of the inflation rate to the devaluation rate. An exchange rate anchor is often promoted based on the fact that, through its immediate effect on the inflation of traded goods, overall inflation will quickly converge to the rate of devaluation.
- An initial expansion in economic activity followed by a later slowdown. Contrary to what the traditional Phillips-curve type relationship would predict, economic activity (GDP, employment, private consumption, private investment) has typically expanded in the first stages of stabilization.
- A rise in the relative price of non-traded goods (real exchange rate appreciation). The increase in the relative price of non-traded goods has generally been substantial.
- An increase in real wages measured in units of tradable goods. Real wages have typically increased in the initial stages.
- An ambiguous response of real interest rates. The behavior of real interest rates appears to depend on whether the plans have been orthodox or heterodox.
- A remonetization of the economy. The ratio of M1 to GDP has typically increased rapidly in the aftermath of stabilization plans.
- Deterioration of the trade and current account. The external accounts have generally deteriorated sharply, reflecting a large increase in imports of durable goods and capital goods.

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[2] The important distinction between chronic inflation and hyperinflation is in fact that the first term denotes the long duration of inflation , while the second term merely indicates its magnitude (Pazos 1972).
[3] Heterodox stabilization implies wage, price and exchange rate control, while orthodox stabilization includes only exchange rate and price control (Rebelo and Vegh 1995, p. 5)

- A large fiscal adjustment. The elimination of large public deficits is clearly necessary for enduring disinflation. Programs where the fiscal adjustment has been either partial or absent have quickly gotten off track (Israel 1985; Argentina 1991).4
- A boom in the real estate market. During the Chilean «tablita» in 1978 real housing prices increased by 135 percent in the first three years of the program and then fell in 1982 to pre-stabilization levels when the program was abandoned (Rebelo and Vegh 1995, p 6-7; Sobolev 2000, p 4-5).

3. MODELING EXCHANGE-RATE-BASED STABILIZATION

The most important theories in explaining the syndrome are the lack of credibility (Calvo, 1986; Reinhart and Vegh, 1995b), the sticky prices theory (Dornbusch, 1982; Rodriguez, 1982), the wealth effect theory (Helpman and Razin, 1987; Rebelo 1997; Uribe 1997; Roldos 1995) and the theory of financial fragility (Sobolev 2000).

3.1. Lack of Credibility

According to this theory, market participants expect the disinflation program to be discontinued in the future. The anticipated future higher inflation, in the context of a nominal interest rate fixed by the interest parity, lowers the effective price of present consumption versus later consumption. Via intertemporal substitution, this induces an initial consumption and output boom and produces real appreciation.

The lack of credibility theory was implemented by Calvo (1986), who constructed a one-good model, with cash-in-advance payment, perfect capital mobility and utility optimizing consumers in a world of perfect information flow (Ramsey´s optimization).

The model construction was motivated by the reasons for the failure of a set of stabilization programs in the Southern Cone of Latin America. Major stabilizations in that period were based on an initial depreciation rate reduction followed by it's newly acceleration. For situations where market participants expected this scenario, Calvo (1986) built a model to bring light to the relationship between the expected stabilization program duration and the stabilization effectiveness in reducing inflation.

The model was based on microeconomic consumption maximization from the zero period to infinity. Consumption in the initial period $t=0$ up to the end of stabilization $t=T$ was marked with x, while consumption after the stabilization was marked with z. The assumption that the model is based on is the well known fact from consumption theory that marginal utility u´ of last money unit is the same on whatever good is purchased. Since this model has only one good, Calvo (1986, p.1323) refers us to pre- and post-stabilization consumption.

$$u'(x)(1+\alpha(r+\varepsilon^1)) = u'(z)(1+\alpha(r+\varepsilon^2)) \tag{1}$$

The marginal utility of consumption during stabilization u'(x) is equal to the marginal utility of consumption after the stabilization u'(z). Equation (1) describes real interest rate r, the rate

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4 The stabilization in Argentina in 1991 has been classified as a successful stabilization program.

of devaluation in the period of stabilization ε^1 and the rate of devaluation after the stabilization ε^2. The rate of devaluation in the stabilization period ε^1 is less than the rate of devaluation after the stabilization ε^2. Hence, at the point where the two marginal utilities are the same, consumption in «transition» is higher than consumption after the stabilization $x>z$. Higher devaluation rate results in higher nominal interest rate, and in order to keep Equation (1) in equality, consumption x must be higher than consumption z. In other words, if the rate of devaluation in stabilization period is lower, consumption must be higher to keep the marginal utility before and after the stabilization constant (Calvo 1986, p. 1323).

The second important element of the model is the budget constraint. Consumption after stabilization equals to the difference between discounted income sum y, interests on the bond holdings rf_0 and consumption in the stabilization period:

$$z = (y - rf_0 - x)e^{rT} + x$$

(2)

Figure 1 shows the determination of consumption before the stabilization x and consumption after the stabilization z. Curve AA is the locus of points at which Equation (1) is satisfied and where the marginal utility of consumption is equal before and after the stabilization. Clearly consumption during the stabilization is higher than the consumption after the stabilization because the lower rate of devaluation means lower nominal interest rate. On the other hand, curve BB depicts the locus of points at which Equation (2) is satisfied representing the budget constraint. The relationship is downward-sloping and linear because the sum of the present discounted value of consumption before and after the stabilization must be equal to the present discounted value of noninterest income augmented by the present discounted value of bond holdings (Calvo 1986, p. 1323).
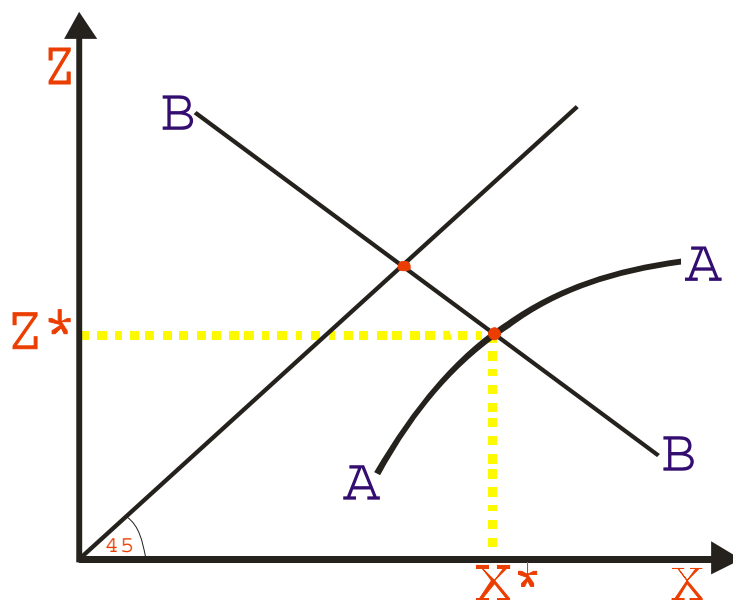
Figure 1: The credibility model of the stabilization program

Source: Calvo 1986: p. 1323

If the rate of devaluation were to be constant forever, the equilibrium would be located at the interception of the BB curve and the 45-degree line. In other words, the consumption before and after the stabilization program would be equal to the non-interest plus interest income.

However, if we expect the stabilization program to end, the two different expected rates of devaluation will result in two different expected nominal interest rates and two different optimal levels of consumption. Since the consumption in the stabilization period is higher than the consumption after the stabilization, the economy will run an increasing current-account deficit during «transition», implying lower equilibrium at the interception of curves AA and BB (Calvo 1986, p. 1323).

One interesting result of the model is the fact that expectations about the stabilization program duration affect the stabilization effectiveness. The effects of lowering T, that is, the effect of increasing the «degree of temporariness» of the stabilization program, do not affect marginal values, but the budget constraint changes leading to a flattering of the curve BB, a consumption increase and a higher current account deficit. According to that Calvo concluded:

"My results suggest that the nonneutrality of monetary policy during the initial stages of a stabilization plan may become more pronounced, the shorter the public expects the stabilization policy to last...
...this dramatizes the possibility that a temporary stabilization policy may be worse than no stabilization at all" (1986, p. 1325).

Reinhart and Vegh (1995b) analyzed the importance of the lack of credibility in models with perfect foresight. They concluded, in connection to the intertemporal substitution elasticity of the consumption, that larger nominal interest rate drops are needed to explain the large increases in consumption and income during the initial phases of a stabilization plan.

Mendoza and Uribe (1996) improved the same model revitalizing the assumption about perfect foresight. They were modeling the lack of credibility as an option for leaving the currency peg.

3.2. Sticky Inflation

According to this theory it is possible to lower nominal interest rate by fixing the exchange rate. Inflation is a result of the price and wage indexation and the adaptive expectations, and thus it lowers real interest rate. High demand in combination with inert inflation and a fixed exchange rate results in an appreciated exchange rate. Appreciation then causes the income to fall, and eventually results in a speculative attack on the country's exchange rate.

On the one side of the Dornbusch (1982) model the higher government spending or the lower taxes relative to income are, the higher is the demand for domestic goods, the higher are the prices of domestic goods, and the result is an appreciated exchange rate. Higher deficit due to increased government spending or lower taxes relative to output create a deficit which needs correction via a real depreciation. Disinflation requires expenditure reduction. In the long run, after the inflation is stopped, the economy should turn to equilibrium real exchange rate with a balanced payment balance.

The first problem is that the framework is decidedly meant for the long run, with no implications on the problem of adjustment that arise from inflation control in the short run. The second problem is that the real depreciation that is required for long-run external balance is made to look as a gain in competitiveness rather than a reduction in the standard of living (Dornbusch 1982, p. 701-703).

The alternative to the structural approach is a monetary approach with a dominant purchasing power parity. The rate of exchange depreciation sets the rate of inflation, and the stabilization involves real money supply growth precisely at the rate of the money demand. A small country can experience high unemployment only for high real wage reasons.

The next approach to disinflation is the belief in rules. Fixed nominal exchange rates or pre-announced target paths of the nominal rate are believed to be integral parts of stabilization efforts. In practice, none of the above-mentioned approaches have gained empirical confirmation.

A model that could explain what is noticed in practice was unlike the structural and purchasing power parity model. The evolution of inflation is governed by real appreciation and the deviation of output from full employment:

$$p = \alpha(e + p^* - p) + \beta(y - \bar{y})$$

(3)

Equation (3) states that inflation rises whenever the rate of inflation of foreign prices p^* in home currency e exceeds the prevailing rate of inflation p, or when output exceeds potential. It rises or falls in response to a changing real exchange rate or unemployment. The stock of debt, fiscal policy and the exchange rate are the key policy variables. A given deficit can be financed by money or debt in different proportions (Dornbusch, 1982, p. 705).

The purchasing power parity method, where the exchange rate change is the difference between foreign and domestic inflation is no longer relevant. Slowing down depreciation leads to slower inflation. During the disinflation process the rate of inflation is higher then the rate of depreciation as long as inflation is equal to the world inflation. The appreciation of real exchange rate creates a loss in competitiveness so either the devaluation or depreciation of nominal exchange rate is needed to improve real exchange rate.

The process of overvaluation through a reduced rate of depreciation is particularly interesting for a number of reasons. Firstly, reduced depreciation immediately starts the disinflation process. Secondly, the loss in competitiveness gradually costs output and jobs, but at the same time the standard of living rises. There is an early phase of euphoria – falling inflation, rising real wages – while all the negative effects will take place in future.

The higher standard of living bought by the current overvaluation is merely borrowed; the current account is in increasing deficit. In order to regain the competitiveness the governments can chose to sit through a period of deflation or depreciation (Dornbusch 1982, p. 707).

But even if the government chose to sit through a period of deflation so as to regain competitiveness the public (consumers, trade unions and employers) would still entertain doubts about nominal exchange rate depreciation. The possibility of that depreciation would raise nominal interest rate and that, in turn, implies lower investment, productivity and output growth (Dornbusch 1982, p. 707).

The combination of wage controls and exchange rate targeting, along with price controls in the public sector, makes it possible to avoid initial real exchange rate appreciation. Success at

disinflation depends on a government's capability to avoid initial appreciation (Dornbusch 1982, p. 707-708).

It is useful to analyze the works of Rodriguez on exchange rate based stabilization. Rodriguez assumed the inflation equal to the sum of expected inflation πe and excess in demand ED:

$$\pi = \pi^e + \alpha ED \tag{4}$$

The economy is divided into traded and non-traded goods market. The inflation is the weighted average of both sectors (T is the traded, N is the non-traded sector):

$$\pi = \beta \pi_T + (1 - \beta) \pi_N \tag{5}$$

In the international traded sector we assume the public expectations about inflation are safe because of the constant world inflation rate. In the international non-traded sector we have adaptive inflation expectations.

$$\pi = \pi^e + \alpha (1 - \beta) ED_N \tag{6}$$

Equation (6) describes the time path of the expected rate of inflation given the actual rate. The excess demand for non-tradables increases with income level and real interest rate r, and for tradables with income level and real exchange rate ε.

$$ED_N = \chi(\overline{Y}, r) - \overline{Y} + \delta(\overline{Y}, \varepsilon) \tag{7}$$

Assuming the constant Y, excess demand depends only on real interest rate and real exchange rate. The inflation depends on expected inflation, real interest rate and real exchange rate:

$$\pi = \pi^e + \alpha (1 - \beta) \chi \delta(r, \varepsilon) \tag{8}$$

With perfect capital mobility the real domestic interest rate equals real external interest rate i^* plus the expected depreciation e^e and the risk premium p and reduced for expected inflation π^e:

$$r = i^* + e^e + p - \pi^e \tag{9}$$

Putting Equation (8) in Equation (9) we get the final function of inflation in this model:

$$\pi = i^* + e^e + p - r + \alpha (1 - \beta) \chi \delta(r, \varepsilon) \tag{10}$$

In this model the depreciation affects the rate of inflation positively. On the other side, real interest rate depends on the expected exchange rate. Exchange rate depreciation stimulates the real interest rate to grow and induces a decline in demand which in sum acts negatively on inflation (Rodriguez 1982, p. 805).

Real exchange rate is defined in the following equation:

$$\varepsilon = \pi^* - i^* - p + r - \alpha(1 - \beta)\chi\delta(r, \varepsilon)$$

(11)

The long-run equilibrium of the real exchange rate and real interest rate is determined by external inflation π^*, external interest rate i^*, the risk premium p and the AS curve slope $\alpha(1 - \beta)\chi\delta$.

Calvo and Vegh (1994) analyzed the model of exchange rate based stabilizations which often result in an initial output expansion. In the presence of inflation inertia, a reduction in the nominal interest rate causes the domestic real interest rate to fall, thus increasing aggregate demand. The analysis shows that, if the intertemporal elasticity of substitution is smaller than the elasticity of substitution between traded and home goods, a permanent reduction in the rate of devaluation leads to a fall in aggregate demand. The exchange rate based stabilization will thus not exist during the initial phase of the program. The model assumes a small economy, perfect capital mobility, and numerous market participants with perfect access to information. The utility function is defined thus:

$$u(c_t^* c_t) = \frac{z_t^{1-\frac{1}{p}} - 1}{1 - \frac{1}{p}}$$

(12)

In the equation, u is utility, c^* consumption of traded goods, c consumption of home goods, z total consumption, p the intertemporal elasticity of consumption substitution.

$$z_t = \left\{ q c_t^{*\frac{\sigma-1}{\sigma}} + (1-q)c_t^{\frac{\sigma-1}{\sigma}} \right\}^{\frac{\sigma}{\sigma-1}}$$

(13)

Equation (13) shows the aggregate consumption function with substitution coefficient σ and the constant q (Calvo and Vegh 1994, p. 63-72).

A permanent reduction in the rate of devaluation may lead to an initial consumption boom only if the σ is smaller than the p. In the opposite case, a recession ensues because the expansionary effects generated by intertemporal substitution are more than offset by the recessionary effects that result from the substitution between home and traded goods.

3.3. Wealth effect

According to this theory, the exchange-rate stabilization dynamics can be explained by the wealth allocation effect in three possible ways: the inter-generational wealth allocation, fiscal consolidation, and aggregate supply reaction. Deficit financing for today's generation will be perceived as the wealth gain because some population groups will no longer be present in the system at the time of debt payment (concerning biology).

The real wealth of an individual born at time t depends both on the given path of exchange rate depreciation rates and on the path of taxes. An individual is better off the further away in

the future taxes are imposed and the exchange rate depreciated, and the nearer in the future transfers are given and the exchange rate is appreciated (Helpman and Razin 1987, p. 112-113). The increase in wealth, according to the stabilization with exchange-rate as the nominal anchor, will be followed by an increase in consumption and demand, as well as extended appreciation and debt growth (Helpman and Razin 1987, p. 111).

Rebelo (1997, p. 9-14) constructed a two-sector model, tradables and non-tradables. The production factors of the tradable sector are labor N, capital K and technology A while the non-tradable sector contains land T instead of the capital.

$$Y_T = A_T L_T^\alpha K_T^{1-\alpha} \tag{14}$$

$$Y_N = A_N L_N^\beta T_N^{1-\beta} \tag{15}$$

Consumers optimize their utility under the following function:

$$U = E_0 \sum_{t=0}^{\infty} \beta^t \frac{1}{1-1/\sigma} \left\{ \left(C_{Tt}^\gamma C_{Nt}^{1-\gamma} - \psi N_t^v \right)^{1-\frac{1}{\sigma}} - 1 \right\} \tag{16}$$

The symbol E_0 denotes the expectation conditional on the information available at time zero. The variable N_t denotes the number of hours worked; the variable C_T denotes consumption in the tradable, and the variable C_N consumption in the non-tradable sector (Rebelo 1997, p. 9). Monetary policy is determined by the purchasing power parity in the tradable sector:

$$P_{Tt} = e_t P_{Tt}^* \tag{17}$$

Equilibrium in the non-tradable goods market requires:

$$Y_{Tt} = C_{Nt} + G_{Nt} \tag{18}$$

Adding the private and public budget constraints, we obtain the equilibrium conditions for the tradable goods sector (I – investment, S – savings, TB – trade balance):

$$Y_{Tt} = C_{Nt} + G_{Nt} + I_t + S_t + TB_t \tag{19}$$

$$a_t = (1+r^*)a_{t-1} + TB_t \tag{20}$$

The key element of the model is the wealth effect which is determined according to the net assets a. Net assets is equal to the sum of the interest receipts r minus the trade deficit.

An increase in a causes the wealth and substitution effect. The economy responds to this increase in a by raising the consumption of both goods. This is the wealth effect. However, without a change in the relative price, economy would continue to produce the same amount of non-tradables. Thus the price of non-tradables has to rise, and in equilibrium, the consumption of tradables expands more than the consumption of non-tradables.

The big issue of this model stabilization is in the unsustainable fiscal policy in the long run. Government expenditures increase at the exogenous rate g_G. The timing of the reform matters because postponing the reform increases the present value of the taxes that need to be collected in order to finance additional government expenditures. The results of the fiscal reform are taxes that are lower than expected, raised income, exchange rate appreciation and a trade balance deficit. The longer the period before the fiscal reform, the higher the tax burden in the future (Rebelo 1997, p. 16-23). In cases where fiscal reform has been combined with the stabilization program, effects were even stronger.

Uribe (1997, p. 1999) constructed a similar model where the exchange-rate-based stabilization results in the ERBS syndrome, but without the sticky prices and the lack of credibility. In Uribe's model inflation acts as a tax on domestic market transactions and generates a wedge between the rate of return on domestic capital and the rate of return on foreign assets. This wedge causes the domestic capital stock to be a decreasing function of the rate of inflation. At the same time, inflation generates negative wealth effects as companies and consumers spend real resources in the management of their holdings of domestic currency – the so called shoe-leather cost.

As the domestic supplies of tradable and non-tradables are less than perfectly elastic in the short run, the initial boom in the aggregate domestic spending causes a deterioration in the trade balance and an increase in the relative price of non-tradables in terms of tradables.

Roldos (1995) based his model on the construction of the supply curve. The assumption of the model is that the tradable and non-tradable goods supply will react differently in situations where the capital is accumulated only in the tradable sector. Reduced devaluation rate results in the higher domestic rate of return on the assets, thus the higher consumption and capital accumulation in the long run. This theory explains real appreciation and the current account deficit as the equilibrium state of the economy, implying that a financial crisis or the payment balance crisis is hard to occur.

3.4. Financial fragility

Given flexible prices and fully credible policies, fixing the nominal exchange rate would immediately stop the inflation at the equilibrium level of the real exchange rate. Yet financial systems in developing countries are hardly free from significant market imperfections meaning that the significance of the money and the financial sector cannot be disregarded. Sobolev (2000, p. 8) constructed this model explaining the ERBS syndrome through the imperfections that characterize the financial system.

Weak legal framework and inadequate accounting standards in developing countries do not allow investors to evaluate corporate cash flow and the creditworthiness of the most potential borrowers. Hence, the potential pool of issuers is not large enough to create a liquid market for non-bank liabilities such as commercial papers. As a result, there are no issuers of perfect substitutes for bank deposits. Consequently, investors prefer to hold short-term liquid assets and borrowers – who are forced by lenders to remain liquid – are restricted to short-term funds (Sobolev, 2000, p. 9).

In developing countries, poor accounting conditions and information disclosure frameworks limits the ability of banks to collect and process information. In a competitive market for bank

services, every bank does not take account of the effects its lending decisions have on the quality of information received by other banks. If borrowers can prove to banks that they are liquid, and the source of liquidity is not observable, they can effectively prove they are solvent. However, when more credit is available, it is easier for borrowers to remain liquid. This is the information externality in bank lending: banks do not internalize the adverse impact of their lending on other banks' information, and therefore extend more credit than they otherwise would (Sobolev 2000, p. 9-10).

Suppose a country embarks on a well-designed stabilization program anchored by fixing the nominal exchange rate. The ensuing disinflation increases the demand for domestic monetary assets and improves the liquidity position of the banking sector. A remonetization of the economy occurs, increasing the supply of loanable funds. The increases in inside money and bank lending are associated with increasing investment, output, and consumption demand for both traded and non-traded goods. In response to the increase in demand for non-traded goods, labor used to produce non-tradables has to rise. As a result, the relative price of non-traded goods has to rise to shift labor from the traded to the non-traded goods sector – that is, the real exchange rate appreciates. This result in the deterioration of the trade balance, with the resulting current account deficit being financed by capital inflows intermediated through the banking system.

The process can continue until the real currency appreciation and monetary expansion reach levels that threaten domestic financial stability. The expenditure boom may also produce a boom in the real estate market, and a rise in the price of assets that are used as collateral for bank loans, thus further facilitating borrowing (Sobolev 2000, p. 11-12).

Real currency appreciation and multiple expansion of the banking system's balance sheet do not generate a crisis by themselves. Rather, they render the banking system fragile and make the economy as a whole vulnerable to a small exogenous shock that can trigger banking and balance-of-payments crises. The rapid expansion of banks' balance sheets will produce a stock of broad money greatly in excess of the stock of foreign exchange reserves. All that will force the government to abandoning the exchange rate peg (Sobolev 2000, p. 12).

4. EMPIRICAL CONSIDERATIONS OF THE SYNDROME

There are two types of empirical and econometrical papers on the syndrome. The first type is testing of theoretical models on the empirical data. The other type is testing of stylized facts of the syndrome on the stabilization data worldwide.

Among most important empirical papers on the testing of the syndrome theories are Reinhart and Vegh (1995b), Uribe (1997) and Celasun (2003). Reinhart and Vegh (1995b) proved the lack of credibility theory on the four out of seven stabilization programs in Latin America during seventies and eighties. Uribe (1997) proved that calibrated version of the model can explain Argentinean April 1991 stabilization program. Celasun (2003) tested combined sticky prices and lack of credibility model on the 2000 Turkish stabilization and 1988 Mexican stabilization. The paper resulted with controversial results, lack of credibility model have correctly simulated consumption path, but it had difficulties with real exchange rate, while combined model simulated successfully real exchange rate movements and failed with consumption path.

In the group of papers that have researched stylized facts of the model most prominent papers are Rebelo and Vegh (1995), Sobolev (2000), Detragiache and Hamann (1997) and Hamann (1999). Rebelo and Vegh (1995) successfully identified stylized facts in four programs in Argentina, Izrael, Uruguay and Mexico. Sobolev (2000) confirmed the same hypothesis in ten programs starting with Brazil March 1964 program and ending with Argentina April 1991 program. Detragiache and Hamann (1997) rejected the syndrome stylized facts in the 1990. Portugal, 1987 Italy, 1986 Ireland and 1990 Greece, and proved it in 1980 Italy and 1982 Ireland. Making a strong empirical point that fiscal discipline is the single most important element of successful stabilization. Hamann (1999) analyzed all stabilization programs identified according to four various criteria in all countries since the WWII. In total between 28 and 51 stabilization programs have been identified. At least one stabilization program has been identified in 32 countries. In the sample, between 9 and 13 exchange rate based stabilization programs have been registered and results in regard to stylized facts were quite controversial.

In the case of Croatia, both post independence stabilization programs were exchange rate based stabilization programs. In January 1992, nominal exchange rate of German mark were anchored at 55 HRD, but already in March it has become obvious that inflation have not converged to new devaluation rate and program was abounded (Anušić et. al. 1995).

The second exchange rate based stabilization program was much more successful in dealing with inflation. In October 1993, nominal exchange rate of German mark was frozen at 4444 HRD. Furthermore, asymmetric pegging was announced at 4600 HRD for November and 4750 HRD for December. In the context of exchange rate based stabilization syndrome, it was obvious that stabilization induced growth, boosted consumption and triggered appreciation of real exchange rate and ever growing trade deficit.

Several authors characterized Croatian 1993 stabilization program and latter transition process as the ERBS syndrome (Družić, Šimurina and Tica 1999; Babić 2006) ignoring big peculiarity of Croatian stabilization program. Appreciation of real exchange rate in Croatia is a consequence of nominal exchange rate appreciation and not a consequence of slowly converging inflation rate. Soon after stabilization, nominal exchange rate appreciated from 4444 HRD to 3600 HRD and remained at that level up until now.
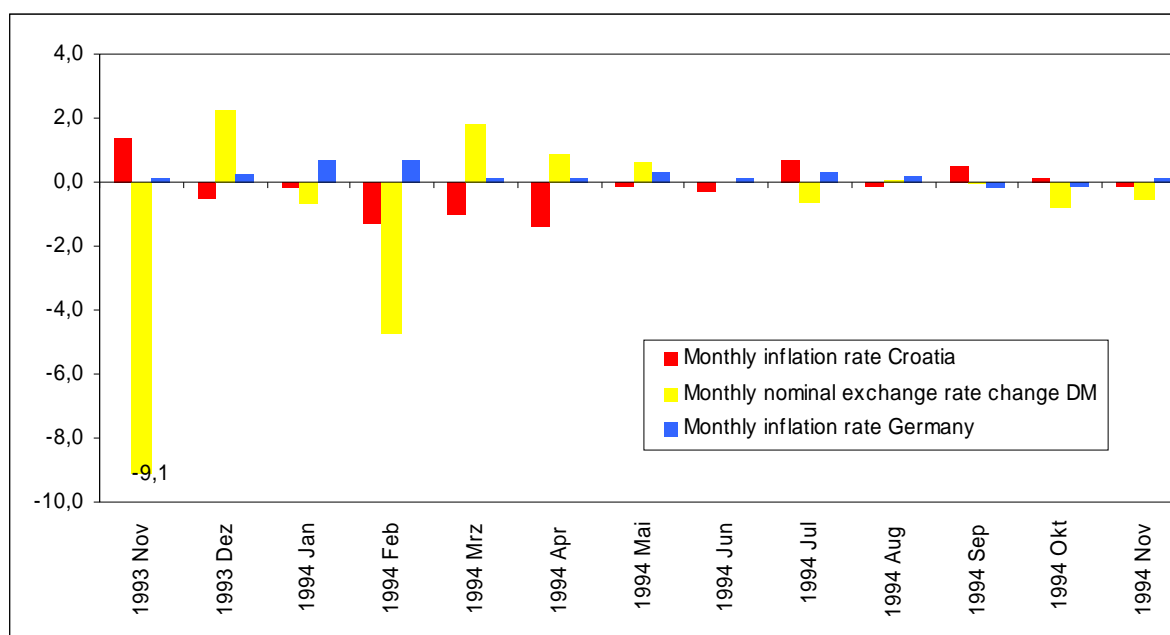
Figure 2: German mark nominal exchange rate changes and monthly inflation in Croatia and Germany

Source: HNB 2005; DB 2005

5. CONCLUSION

Analysis of the exchange rate based stabilization syndrome indicates two major conclusions. The first one is related to the theories which aspire to theoretically explain the mechanism behind the syndrome within the framework of rational behavior. The second one is related to empirical confirmation of the theories and of the stylized facts.

Obviously strongest empirical confirmation can be found for the stylized facts of the syndrome. It is more than obvious that almost all exchange rate based stabilization programs in developing countries have the behavioral pattern which leads to default. On the other side, empirical confirmation of the suggested theories is confirmed with smaller certainty. Therefore, huge space for further research is definitely open in redesigning of available theories as well as founding the new theories.

In the context of recommendations for the economic policy it is quite obvious that exchange rate based stabilization programs are much more efficient in the short run, but quite unsustainable in the long run. Basically, exchange rate based stabilization syndromes are focused on the consequence rather than a cause of mismanaged economic policy. Historically ERBS programs are sustainable only if accompanied by substantial fiscal reforms (usually cuts in public spending) otherwise they are destined to failure.

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TOWARDS A KNOWLEDGE-BASED ECONOMY
IN SOUTHEAST EUROPE

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1. INTRODUCTION

In the European Union (EU) and its national economies, science and technology (S&T) is today perceived as a key resource for increasing competitiveness and long-term growth. The Lisbon strategy, formulated at the Lisbon European Council in March 2000, emphasised the importance of the transition to a knowledge-based economy in the EU and its member states. The objective agreed by EU governments at the Barcelona Council in 2002 was to increase Research and Development (R&D) spending to 3% of GDP by 2010 (from the 2000 level of 1.93% in the EU-15), in order for the EU to become the most competitive and dynamic knowledge-based economy in the world. The Lisbon summit suggested to redirect public expenditure towards increasing capital accumulation, both physical and human capital, and support R&D and innovation and information technologies (see European Commission, 2003, p. 15). Industry-financed R&D should also increase from around 56.3% of total R&D spending in the EU-15 in 2000 (against 68% in the USA and 72% in Japan) to about 70%. Among the other objectives are the creation of a true "European Research Area" and encouraging the start-up and development of innovative businesses (see European Commission 2003a and 2003b).

The objectives posed by the EU on its way to a knowledge-based economy are clearly highly relevant also for the six Southeast European countries (Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro, and Serbia). Although only Croatia is presently negotiating EU accession (since October 2005), all other SEE countries today aspire to become future EU members. This will imply adopting themselves objectives identified as priority by the EU and its member states. Despite many uncertainties about future EU enlargements, primarily due to the present crisis within the EU and "enlargement fatigue", the SEE countries have been firmly promised EU membership. However, these objectives are important irrespective of whether and when the SEE countries will effectively be able to join the EU. Increasing investments in R&D, information technologies, innovation, science and technology (S&T) is important because these factors can give a crucial contribution to long-term economic growth. The importance of innovation as the driver of economic growth has been suggested by recent economic theories and confirmed by growing empirical evidence from many countries worldwide. These objectives need to be fully acknowledged today in all SEE countries, as a way towards defining more appropriate policies for the S&T sector that

would lead these countries also towards a knowledge-based economy and society in the future.

In what follows, we will present a comparative overview of the current situation regarding science and technology (S&T) in the six SEE countries. The main economic constraints which have severely limited progress in the S&T sector in most SEE countries are first addressed (section 2). National policies in the area of S&T of the individual SEE countries are then discussed, including government measures related to ongoing reforms of the S&T sector, investment in R&D, the trends regarding human resources, and S&T output indicators (section 3). Some policy options associated with future challenges for SEE countries are also discussed (section 4). The paper ends with a few concluding remarks (section 5). The paper has benefited from research done over the last two years for UNESCO (Uvalic, 2005), and the Slovenian Ministry of Higher Education, Science and Technology (Uvalic, 2006) as part of the SEE-ERA.NET consortium (European Research Area in Southeast Europe Network), co-financed by the EU Sixth Framework Program.

2. ECONOMIC CONSTRAINTS ON R&D IN SEE

The current situation regarding R&D in the SEE countries cannot be properly assessed without taking into account the specific circumstances that have prevailed in the region since 1989. To a large extent, the situation in the R&D sector is still today constrained by the negative heritage of the last fifteen years. The legacy of the 1990s - the break-up of SFR Yugoslavia, the military conflicts that accompanied it, international sanctions against some countries, nationalistic policies and slow processes of democratisation, together with high economic instability, recurrent economic crises, reform reversals and economic mismanagement - has had a number of negative consequences for the economies of the successor states of former Yugoslavia, which has also directly affected the S&T sector. Although the SEE region today is very heterogeneous, as the SEE countries are at different stages of transition to market economy, at different phases of EU integration, and at very different levels of development, the six SEE countries also share some common features and face similar challenges.

The highly unfavorable political circumstances in SEE throughout the 1990s have had particularly negative economic implications for four of the five successor states of former Yugoslavia (all except Slovenia). In most countries, many important economic reforms have been substantially delayed. Under the impact of disintegration, wars, international sanctions and isolation, most countries have implemented inward-oriented economic strategies, imposing trade and other barriers (Albania is the only exception). Moreover, as elsewhere in Central and Eastern Europe (CEE), initial measures of the transition to a market economy have had a number of negative economic and social consequences. The recession of the early 1990s was particularly deep in SEE, and today all SEE countries face a number of pressing economic problems and internal constraints on development. The SEE countries today are generally in a less favorable economic situation than the more advanced countries in CEE regarding growth recovery, the achieved levels of development, unemployment, foreign trade deficits, savings and investment rates, inflow of Foreign Direct Investment (FDI).

Many present economic features of the SEE countries directly or indirectly affect the S&T sector and R&D intensity. In recent years, stringent *budgetary constraints* have prevailed in

all SEE countries, due to restrictive monetary and fiscal policies, which were necessary to attain macroeconomic stability after years of very high inflation (and hyperinflation). Such policies have severely limited public expenditure, where cuts were unavoidable, also for S&T and R&D purposes.

Most SEE countries are also at a relatively *low level of development*. Economic recovery in SEE after the deep recession of the early 1990s has not been sufficient to compensate for the very substantial fall in output. By mid-2005, only Albania had surpassed the 1989 real GDP level, whereas Serbia was still at 60%. Industrial production has registered an even sharper fall in the early 1990s and the recovery has been equally slow. The low level of development is also reflected in the economic structures of the SEE countries. During the past fifteen years, the SEE economies have experienced a process of de-industrialization; whereas the EU is presently developing from an industrial to a post-industrial knowledge-based economy, most SEE countries have seen their economies partly transformed from industrial into agricultural. With the closure or restructuring of large industrial factories, many laid off workers have been returning to subsistence agriculture.

Imbalances on the external accounts of SEE countries pose further constraints on S&T development. Stagnating exports to western markets due to their low competitiveness and their non-diversified structure, together with the traditionally high dependence of most SEE countries on imports of certain intermediate goods, have resulted in high and increasing trade deficits. Most SEE countries have missed a whole decade of technological progress, a part of their industrial capacity is outdated and has not yet been restructured or modernized. National investment and savings rates have been extremely low in recent years. The current account deficit remains above the dangerous threshold of 7% of GDP in most SEE countries, particularly Bosnia and Herzegovina and Serbia. The large imbalances on the external account have been partly covered by large capital inflows from abroad, until a few years ago primarily donors financial assistance, and workers remittances.

Foreign Direct Investment (FDI), until only a few years ago, has been disappointingly low (except in Croatia), in comparison with some other transition countries. In the more advanced transition economies which today are EU member states, FDI has been one of the key factors for transmitting innovative technologies, know-how, and new investment in R&D. Up to now, this has happened to a very limited extent in most SEE countries, since a large part of FDI is associated with a few big privatizations in specific sectors (banking, telecommunications) and there has been very little greenfield investment. All of these features of SEE economies represent concrete constraints for national policies in the S&T sector which we now turn to.

3. NATIONAL POLICIES IN R&D IN SEE

As part of the transition to market economy, all former socialist countries have undertaken substantial institutional changes over the last fifteen years, also in the area of modernization of science policy (for an broad overview, also on Central East Europe, see Kobal and Radosevic, 2005). Similar reforms have taken place in the SEE countries, though at different times and at variable speed, and these changes have also directly affected the R&D sector. We will discuss four key issues most relevant for the present situation of the S&T sector in SEE: 1) government policies in R&D/S&T; 2) trends in investment in R&D; 3) human resources; and 4) main S&T indicators.

3.1. Government policies in R&D

In 1989, the general conditions regarding the R&D sector were very different in the individual SEE countries, SFR Yugoslavia being in a more favourable position than Albania. The successor states of former Yugoslavia have inherited relatively high quality S&T institutions, and universities with a long tradition. Pre-1989 economic reforms in SFR Yugoslavia had facilitated a major degree of openness of the economy, increasing foreign trade with the European Community, and substantial scientific exchange with the outside world. By contrast, Albania had pursued the traditional Soviet-type economic model and was one of the most closed economies in Europe. These different starting conditions in 1989 are still today a crucial factor explaining the present differences in S&T systems among the SEE countries.

Since 1989, reforms of the S&T/R&D institutions and education systems have been in course in all SEE countries. Though these reforms have been implemented at variable speed, a general feature is that they have usually been in the shadow of other national priorities. In part, this is due to an insufficient recognition of the crucial role of science in the overall process of economic development, but even more to the unfavourable economic situation and lack of financial resources for these purposes in all SEE countries. Due to more pressing economic problems, governments have given priority to macroeconomic stabilisation and short-term budgetary issues, while many longer-term problems and challenges have been neglected. Not surprisingly, until fairly recently, there have been no effective medium-term strategies in many important areas, including S&T, and when such a strategy has been prepared it has lacked resources for its effective implementation.

Regarding the legislative framework, all SEE governments have recently adopted new laws, most frequently separately for the two broad areas: on Higher Education, and on Science and Technology, Research and Technological Development, or similar (see more in Uvalic, 2006). Croatia is an exception, as in 2003 it adopted one Law on Scientific Activity and Higher Education, and has also merged the two ministries in charge of the two areas, in one Ministry for Science, Education and Sports. A number of related laws and official documents have also been prepared and adopted, such as the Policy, Strategy and Action Plan of the Information Society of Bosnia and Herzegovina, Strategy of Development of Croatia in the 21st century – Science, the 2001 Program for Innovative Technological Development (HITRA) in Croatia, the Law on Innovative Activity in Serbia. In FYR Macedonia, several strategies are presently being prepared, including the National Strategy for Science and Research. There have also been new regulations regarding innovation centres or technology parks, and other documents designed to promote S&T development. However many of these documents seem to be weak in identifying the instruments for attaining the desired objectives. Despite all the government laws and documents specifying numerous objectives, tasks and priorities in the R&D sector, it seems that all the SEE countries still lack a concrete and realistic long-term national strategy on R&D. Even in the most advanced country, Croatia, there have been many complaints that there is no medium-term or long-term vision on R&D and that the short-term policy of R&D is inconsistent (see Svob-Djokic, 2002).

There have also been a number of other measures to promote S&T, also in Small and Medium-sized Enterprises (SMEs). Albania has created the Technology Information Promotion Service Office which aims to facilitate match making between demand and supply for technology; in 2001, 500.000 SMEs were linked to the network, some 20 businesses annually are assisted in technology purchase, while more than 100 acquire information on

technology. The Albanian customs law envisages a reduced 2% tariff for the import of technology, as an incentive to acquire imported technological know-how. FYR Macedonia has some donor-supported pilots on technology transfer. In Serbia, several strategy documents have been prepared by the SME Agency and the Ministry for S&T, where it is recognized that the state has an important role to play and should financially support development activities of companies, particularly of innovative SMEs. Various programs have been defined as part of an integrated approach, linking innovation at the level of institutions, industry, the regional level and the development of innovation centres and science/technology parks. There has also been support of actions at national and regional levels aimed at developing inter-firm clusters. Technology parks exist to a limited extent in most SEE countries.

The systems of education, as a crucial factor in the transition to a knowledge-based economy, has also been subject to substantial reforms in all SEE countries throughout the 1990s (see Uvalic, 2005). In some countries state universities, public or semi-public research institutes, and even the Academies of Sciences have frequently maintained the role they have had before and have not always undergone the process of necessary reform. New private universities and research institutes ("think-tanks") have been emerging at an exponential rate, although for the moment there seems to be a lack of proper accreditation and quality assurance systems. New private universities could contribute to increasing the quality of higher education and to more diversified supply, but they need clear general procedures as to their establishment and functioning, and a reliable quality assurance and accreditation system. Generally it is considered that the new laws on higher education are based on declarative, rather than effective autonomy, as lamented by many experts in this area from SEE. All SEE countries are also signatories of the Bologna Declaration, which therefore also determines their national legislation.

Despite all these positive recent developments, there have been substantial delays in implementing many of the new laws, regulations, and programs, either because of lack of resources or other priorities emerging as more urgent. Political changes have not facilitated consistency in carrying forward S&T policies, as frequent changes in governments have implied new laws or further amendments to existing laws on R&D, consequently postponing their implementation and effective changes even further. Moreover, many government documents in the area of S&T/R&D remain important only on paper. There have been many complaints about the inappropriate treatment of R&D institutions and universities. Though the research systems have substantial potential, they are generally characterised by an unfavourable structure, weak interaction with the business sector, insufficient linkages with the education system and research systems of other countries, also in the SEE region. The general conclusion of experts from the SEE countries is that during the course of years, science, scientists, and scientific research have been marginalized, as science has not been among the key priorities. The inappropriate treatment of R&D is clearly a serious obstacle for more intensive research.

3.2. Investment in R&D

Investments in R&D and in education are regarded the major forms of investment in knowledge, in addition to spending on information and communication technologies (ICT). In the EU-15, R&D expenditure as a percentage of GDP has been stable at around 1.9% (though as high as 3% in the Nordic countries) and an additional 1.4% of GDP is spent on tertiary (higher) education. How do the SEE countries compare with the EU average?

The national statistics on R&D indicators are not very satisfactory. The data sometime vary from source to source, depending on whether it is reported in national statistics, in annual reports of the relevant Ministries, or in documents of specialized government institutions. National statistics on one of the most important indicators, R&D expenditure, are today available for only two of the six SEE countries, Croatia and FYR Macedonia, though estimates exist for Serbia and Bosnia and Herzegovina.

In Croatia in 2003, general expenditure for R&D (GERD) was 1.14% of GDP, while in FYR Macedonia only 0.22% of GDP, a substantial reduction with respect to 2000. For Bosnia and Herzegovina, recent estimates give R&D expenditure at around 0.03-0.05% of GDP, so the main priority of the government is to bring it back to the pre-1992 level of 1.5% of GDP. For Serbia, there are some recent estimates which indicate that R&D expenditure was a low 0.32% of GDP in 2003, but this is a remarkable increase with respect to only a few years ago. For Albania and Montenegro not even estimates on GERD are available.

Figure 1 presents recent trends in R&D expenditure for the three SEE countries for which data is available, illustrating the large differences that presently exist among them. Croatia is clearly the country that has the highest GERD. As can be seen from Figure 1, in 2000-2003 general expenditure on R&D of the three SEE countries was much lower than the average GERD for the EU-15 or the EU-25 (a bit less than 2% of GDP in both cases in recent years). However, given that the average EU figures hide substantial differences among countries, it should be stressed that Croatia performs rather well in comparison with some present EU member states.
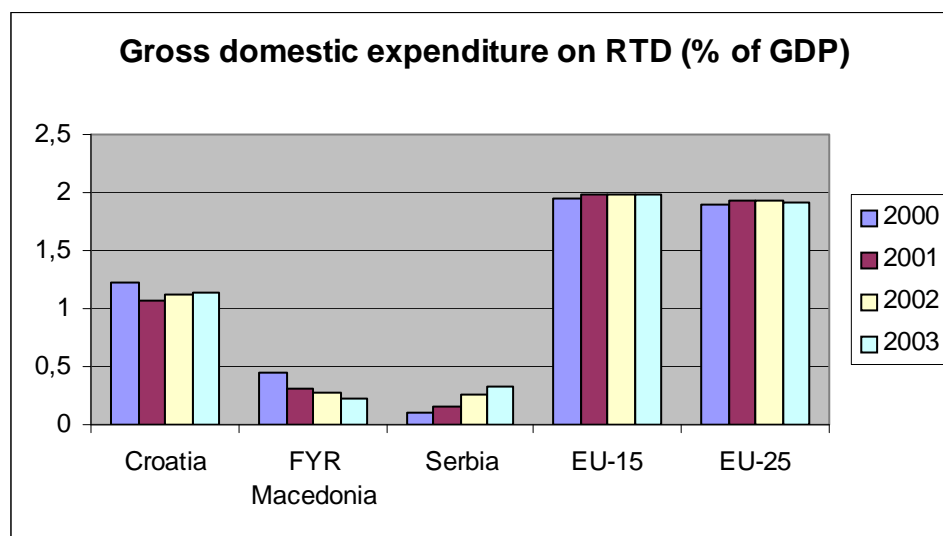
Figure 1. Gross domestic expenditure on Research and Technological Development (in % of GDP), 2000-03

In 2003, Croatia had the highest GERD of all SEE countries - 1.14% of GDP - which was higher than GERD in most new EU member states (except the Czech Republic and Slovenia) and even old EU member states (including Greece, Portugal and Spain), and at the same level as Italy's GERD (see Eurostat News Release 156/2005, Dec. 6, 2005). It should be noted that in the case of Serbia, since only government expenditure on R&D is available (there is no data on financing of other sectors), the figure of 0.32% of GDP in 2003 is clearly an underestimate of total R&D expenditure. Even so, Serbia in 2003 spent more on R&D than

FYR Macedonia (its GERD was only 0.22% of GDP), or Bosnia and Herzegovina (as mentioned previously, its GERD is estimated at 0.03-0.05% of GDP; see Uvalic, 2006).

If we now consider GERD by the three main sources of finance - government, business enterprises, and higher education - data were available for only two SEE countries, Croatia and FYR Macedonia. Since one of the present objectives within the EU is to increase the share of industry in total financing of R&D, it is of particular interest to compare expenditure on R&D by business enterprises. In 2003 in Croatia, business enterprises contributed almost 40% of GERD, whereas in FYR Macedonia the respective share was much lower, only 12% of GERD. It should be recalled that in 2003 in the EU-15, the share of industry in GERD was 54.6% (see Eurostat, 2005).

Regarding the sources of finance of R&D, the state has remained the primary financier in all SEE countries. Still, public investment in R&D has been declining because of budgetary constraints, while private sources have not been able to compensate for the lack of public funds. The situation is similar regarding the financing of higher education. There is a highly non-diversified system of financing higher education and scientific research at universities, since the primary sources have remained the state budget, the relevant Ministry, and student enrolment fees, while projects financed by external institutions remain scarce.

Considering only government expenditure on R&D, it is interesting to note the remarkable increase that has taken place in recent years in Serbia (see Figure 2). Government expenditure on R&D (in % of GDP) has in recent years stagnated in both Croatia and FYR Macedonia, whereas in Serbia it has experienced exceptionally high growth rates. Consequently, by 2002-03, government expenditure on R&D (in % of GDP) was actually higher in Serbia than in the other two SEE countries.
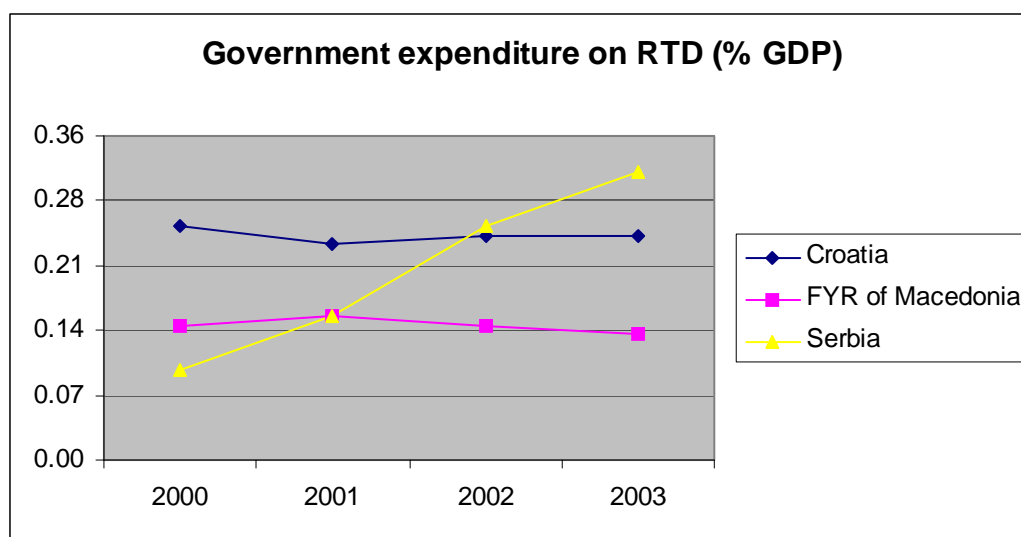
Figure 2. Government expenditure on R&D (in % of GDP), 2000-03

Private sector financing of R&D in SEE countries has remained limited for a number of reasons, some of which are similar to those in other transition countries, while others are more specific. One of the factors that has contributed to low private financing of R&D in some SEE countries are delays in privatization; contrary to many other transition countries, by mid-2005, the private sector in Bosnia and Herzegovina and in Serbia contributed only around 55% of

GDP (see EBRD, 2006). Moreover, the private sector in all SEE countries has grown in recent years thanks to primarily small-scale privatization, but small firms often lack the resources to invest in R&D, as many examples from the EU countries seem to suggest. The closure or restructuring of many large public enterprises has all but eliminated corporate financing of R&D. Private sector financing of R&D also remains limited because of the general lack of financial capital available in these countries: due to delays in banking and financial reforms, external sources of finance have remained scarce and are still today offered, in most countries, at highly unfavorable terms (short-term loans, high interest rates). There have been cases of FDI-based privatizations which have also implied substantial innovation and investment in R&D, but overall there have not been many success stories. Donors programs have been more important in all SEE countries in this regard, so innovation-pursued investment by foreign donors has sometimes compensated for the lack of public finance, or FDI, for these purposes.

Workers' remittances have also played an important role in all SEE countries over the past decade, frequently also serving to set up new businesses based on modern equipment imported from abroad, sometimes using favorable legal provisions introduced in order to stimulate the setting up of new private firms. In Albania, remittances have represented some 20% of annual capital inflows and as such have represented an enormous contribution to economic recovery, but similarly high inflows have been present in other countries as well, including Serbia and Montenegro.

In some developed countries, private investment in R&D is twice or more the size of the funds from the government budget, but it is questionable whether this can become a plausible model for changes in the system of financing R&D in SEE countries in the foreseeable future. The same can be said for funding education. The dominant source of financing education (and universities) in many EU countries remains the government, and earnings realised by selling services on the market are not a significant source of income for many European state universities. It is reasonable to expect that this will remain so also in the SEE countries, at least for some time.

The main conclusion that can be drawn is that investment in R&D in the SEE countries is substantially lower than the average in the EU-25, though Croatia compares very favorably not only with other transition countries but also with some EU member states. R&D expenditure in all SEE countries declined rather drastically during the 1990s, leading to the shrinking of the national research systems, with clearly many negative implications. There are huge differences among the SEE countries regarding the annual budget allocated for science, where Croatia as the most developed country is again in the most favorable position. Elsewhere, as a rule, R&D is poorly funded, undervalued and underpaid, and the lack of finance decreases significantly the quality of research.

Today, a common problem in all SEE countries is the modernization and renewal of R&D and scientific infrastructure: purchasing of new equipment, modernization of laboratories and research facilities, promotion of ICT systems, updating bibliographical data bases and specialized literature in university libraries. The SEE governments presently have limited financial resources for these purposes, private funding has remained low and is unlikely to substantially increase over the coming years, whereas international donors have only occasionally shown interest in investing in the modernization of research facilities and laboratories. In the medium term, international donors' financial and technical assistance to the SEE countries will remain an important source, but clearly the necessary resources for funding R&D will also have to be provided increasingly from internal sources.

3.3. Human resources

The military conflicts of the 1990s, the deep recession of the early 1990s and slow economic recovery, increasing unemployment due to industrial restructuring, and other accompanying aspects of the transition have had dramatic consequences for human resources in all SEE countries. Over the last fifteen years, two processes have been taking place, directly affecting human potential in the S&T sector: 1)massive and continuous "external" brain drain, frequently of the best experts, who have left their countries to seek employment opportunities abroad; and 2) brain "waste" or "internal" brain drain: specialists leaving their professions for better paid jobs in the private and/or informal sector of the economy. Both phenomena have had very profound implications for SEE countries human capital, both generally and in the S&T sector. Although similar processes have taken place in other transition countries as well, their consequences have been much more dramatic in the SEE region, primarily due to the military conflicts of the 1990s and associated massive migrations of the population. Bosnia and Herzegovina and Serbia and Montenegro have been among the most affected countries.

Whereas estimates for all transition countries indicate a 20-60% decline in total R&D personnel in the early 1990s, comparable figures for all the SEE countries are not readily available, especially not for the first half of the 1990s. In former Yugoslavia, before 1989, the number of researchers and research institutes is considered to have been too large with respect to their internationally relevant productivity, so in all of its successor states a general decline in R&D personnel was to be expected. Although there has been a growing demand in SEE countries for human resources in S&T (as in the EU), there is a major problem of attractiveness of S&T professions. The academic community is getting smaller and older because a research career is not appealing for young researchers. S&T professions in SEE countries are today not attractive because of low pay, poor social standing, and limited incentives.

Rising inequality and social differentiation have also led to substantial changes on the job market and to a disruption of the traditional system of values, so contrary to the situation before 1989, a university degree in some scientific disciplines is no longer a guarantee for getting a job. Many international organisations and foreign NGOs have recently set up local offices in the SEE countries, hiring researchers on a short-term basis and offering much higher salaries than those offered at universities or research institutes, which has also contributed to such trends.

The University of Tirana lost some 40% of its academic staff, of which 90% were under 40 years old. For Bosnia and Herzegovina there is no accurate data on brain drain as a whole, but a sample covering one third of staff capacity (technical sciences) found that 79% of research engineers, 81% of holders of Masters Degree in science, and 75% of holders of PhDs in science had left the country. In Croatia, there was a notable reduction in R&D personnel during the 1990s, but the trend has been reversed in recent years as R&D personnel increased, from around 11,000 in 1998, to more than 17,000 in 2003 (Uvalic, 2006). By contrast, in FYR Macedonia there has been a trend of decline in the number of researchers throughout the 1990s, which has not stopped even in recent years, as R&D personnel further declined from 3,275 in 1998 to 2,589 in 2003. In Serbia and Montenegro, R&D personnel has been very variable in the 1990s, oscillating without a clear trend, but in 2000 there was a slight increase in their number with respect to 1994.

The situation regarding human resources in R&D in the individual SEE countries is therefore very different and has been extremely variable during the past decade. It is generally regarded that these countries have strong research potential and large resources of well-educated people (as was the case in EU acceding countries), though this issue is controversial. It is reported that education systems have been producing competent graduates, though frequently they lose their motivation because of lack of adequate facilities and low financial rewards. It would be important to provide financial incentives for those researchers who have established a successful research career abroad and want to return to their home countries.

3.4. R&D output indicators

As in the case of other data, statistics on S&T indicators measuring technological and scientific output for the SEE countries were, in many cases, not readily available.

The most important indicator of technological output is the number of patents in a given country. We only dispose of statistics on the number of patents for three countries, Croatia, FYR Macedonia and Serbia and Montenegro. In all three SEE countries, there has been an upward trend in the number of patents in recent years. In Albania and in Bosnia and Herzegovina, in mid 2006 there were still no national patent offices, and therefore no statistics whatsoever on the number of patents.

Croatia registered a remarkable increase in the number of patent applications during the last few years, particularly by non-residents. The upward trend in non-resident applications was remarkable especially after 1997, as their number increased from only 335 in 1995 to over 76,000 in 2001. Patent applications by residents have been increasing much more gradually, from 265 in 1995, to 456 in 2001. Overall, the number of patent applications in Croatia in 2003 amounted to 1,086, but only a very small number of applications are actually granted the right to a patent: in 2003, only 13, or 1.2% of the total.

In FYR Macedonia, over the 1997-2003 period, there were 438 national patent applications and another 855 foreign patent applications. The total number submitted to the State Office for Industrial Property for this seven-year period was 1,293. In the category of national patents, the number of annual applications has actually declined (from 66 in 1997 to 47 in 2003), whereas foreign patent applications have increased (from 65 in 1997 to 388 in 2003). In Serbia and Montenegro, there has been a less pronounced increase in patent applications over the last ten years: from 788 in 1994, their number went up to 1,039 in 2003. Domestic patent applications have actually declined during the course of years, from 574 in 1994 to 359 in 2002, slightly increasing, to 381, only in 2003. The number of foreign patent applications varied during the 1990s, but clearly showed an upward trend after 1998: from 449 in 1999, foreign applications increased to 658 in 2003 (Uvalic, 2005). As in other countries, also in Serbia and Montenegro only a small number of patents are actually granted: in 2003, 179 patents were granted (86 to domestic and 93 to foreign applicants), or around 17% of the total number of applications. The situation is more favourable regarding small patents, as 67% of the total applications were approved and registered.

Another indicator of technological performance of countries regards their overall technological capabilities. The World Economic Forum, in its (2004) *Global Competitiveness Report,* has also included three of the five SEE countries: Croatia, FYR Macedonia and Serbia and Montenegro. These countries were given the rank and score for the Technology index, a composite indicator comprising an Innovation Subindex, ICT Subindex, and Technology

Transfer Subindex. In 2003, Croatia emerges as the most developed among the three SEE countries, being at the 41st place regarding the overall Technology Index (Serbia is at 66 while FYR Macedonia on 70), at the 48th place regarding the Innovation Subindex (Serbia is at 62 and FYR Macedonia at 63), at the 39th place regarding the ICT Subindex (Serbia is at 55, FYR Macedonia at 63), and at the 43rd place regarding the Technology Transfer Subindex (FYR Macedonia is at 59, and Serbia at 60).

The most recent *Global Competitiveness Report 2006-2007* provides data on the Global Competitiveness Index for all SEE countries, as presented in Table 1, giving their rank in 2006, the 2006 score, and rank in 2005. For comparisons sake, two SEE countries have been added, Bulgaria and Romania, though already EU members since January 1, 2007. The differences in the Global Competitiveness Index among the SEE countries are remarkable (see Table 1). Whereas Croatia in 2006 was very favorably ranked (51st), followed by Romania (68th), and Bulgaria (72d), the other SEE countries are much further behind, especially Serbia and Montenegro (87th), Bosnia and Herzegovina (89th) and Albania (98th) (see Table 1). With respect to 2005, only Croatia and Albania have improved their rank.

Table 1. Global Competitiveness Index of the SEE Countries, 2006

	GCI 2006 Rank	**GCI 2006 Score**	**2005 GCI Rank**
Croatia	51	4,26	64
Romania	68	4,02	67
Bulgaria	72	3,96	61
Macedonia	80	3,86	75
S&M	87	3,69	85
B&H	89	3,67	88
Albania	98	3,46	100

Source: World Economic Forum (2006), **Global Competitiveness Report 2006-2007.**

The other main S&T indicator - scientific output - is usually measured by the number of scientific publications, as well as the number of citations of scientific works, both included in various international data bases (such as the Science Citation Index (SCI) and the Social Science Citation Index), or national data bases (various bibliographical data bases in individual countries, most frequently within national libraries). Comparing scientific productivity is associated with various problems and these problems are even more serious in the case of most SEE countries, to a great extent deriving from their isolation over the last fifteen years. These are the reasons why presently most SEE countries have research systems which are considered to be in a catching-up phase.

Most SEE countries have also not been covered, or have been covered only partially, by major data bases during the 1990s, which clearly raises the problem of under-estimation of their scientific output. Thus many national journals in SEE countries are still not included in international data bases. Scientists from SEE countries have not had the possibility to publish in internationally recognized journals (also due to limited international contacts and participation at international conferences, not necessarily because of low quality of output). A further problem is the non-application of international standards in evaluating scientific output, therefore the need to establish competent national systems of evaluation of research. In recent years all SEE countries have introduced modern methodologies for evaluating scientific output (e.g. peer reviews), but some have done this with substantial delay.

In the area of scientific output, there are clearly many tasks ahead. The gradual inclusion of major journals from the SEE countries into international data bases would be important, requiring more active national and international policies in this domain. The SEE countries should also be facilitated open access to international journals via internet. The internet has made it possible to share scientific knowledge much more widely than before, so this opportunity must be made available also to the SEE countries. The fact that many Universities or scientific institutions in SEE cannot afford to subscribe to very expensive data bases should not penalize scientists from the SEE region. International assistance in this area would be highly welcome.

4. TOWARDS A KNOWLEDGE-BASED ECONOMY IN SEE

As emphasized earlier, the SEE countries may not be in a position to substantially increase investment in R&D over the coming years. Because of concrete budgetary constraints, a substantial increase in R&D spending in the short term may not be possible. Nevertheless, the reordering of priorities could still bring about higher R&D expenditure, as indeed has been done in Croatia or in Serbia. Similar choices regarding key priorities in favor of S&T ought to be made by the other SEE governments as well. If economic competitiveness of the SEE countries is to increase in the future, if they are to withstand competitive pressure within the EU, if they are to gradually catch up with the present EU member states, they need to seriously consider themselves some of the proposed instruments for achieving the objectives of the knowledge-based economy. This will probably require in most cases a substantial reorientation of development policies to focus on key sources of economic growth, especially those associated with the use of new scientific and technological knowledge, and related institutional adjustments. Some changes will also be necessary in order to define policies that seek to integrate S&T into economic strategies much more than has been done to date, therefore based on a deeper understanding of the role of technological innovation in economic growth and development. It seems that for the moment, the important link between S&T and economic development is not sufficiently recognised in any of the SEE countries, with the possible exception of Croatia. Creating stronger links between the generation of knowledge and business development is also crucial, therefore links between Universities and other research institutions, and business enterprises.

There are a range of policies that can be used as a means of creating and sustaining innovation, including various incentives to promote the use of intellectual capital in economic transformation. Among the most important tools are business and technology incubators; stimulating the creation and expansion of SMEs and supporting their R&D efforts; establishment of business and technology incubators; setting up of technology parks and inter-firm clusters; building export processing zones; forging production networks; and restructuring financial institutions, to enable banks to promote technological innovation and development (see UNDP, 2004). While some of these policies are already being applied in most SEE countries, the experience gained in EU countries to support high-tech start-ups could also be useful.

Dedicating more internal resources to R&D/S&T does not preclude combining different strategies of technological development, based on both the utilization of modern technologies available in the more advanced countries, and the development of own technological capabilities. Enterprises in SEE countries frequently prefer to adopt new technologies through

licensing foreign patents, rather than through own R&D activities. Considering that SEE countries for the moment are not specializing in high-technology industries and their involvement in the production of sophisticated technologies is marginal, a crucial aspect of economic growth for the SEE counties will remain, in the medium term, the transfer of technologies from abroad, also through FDI. For all the SEE countries, it is of primary importance to attract more FDI by improving the business environment and decreasing country risk.

Regarding more specific policies of S&T development, the SEE countries can use a combination of different strategies (see more in UNDP, 2004). These are some of the possible options for the SEE countries regarding S&T strategies, on their way to a knowledge-based economy.

1. SEE countries can utilize existing technologies produced elsewhere
    (1) Utilize existing technologies to create new business opportunities, so-called "fast follower innovation strategies" aimed at making full use of existing technologies. The area of ICT represents a unique opportunity for building the capacity to utilize available development. The large body of scientific and technological knowledge available, some of which is embodied in ICTs, ought to be deployed for development purposes.
    (2) Attract more FDI. This is a key element for transferring know-how and modern technologies and for building domestic technological capacity. FDI can be used as a vehicle for assisting enterprises in the learning and innovation process.
    (3) Upgrade technological capabilities and systems, in order to improve technological capabilities of firms and move from the position of fast followers to technological leaders.
    (4) Join global value chains by identifying market opportunities gives firms a chance to climb up the technological development ladder.

2. SEE countries can forge international technology alliances: promote research and development through international technology alliances that take advantage of the growing globalization of research and research networks.

3. The SEE governments can establish priorities in S&T funding in their own countries, and support under-funded research, channel resources towards pressing development problems that are currently under-funded. International organizations and bilateral donors could increase their official development assistance to fund research projects that meet these local needs.

4. SEE countries can promote innovation in the business sector through tax incentives, such as credits for R&D or for innovative investment, which could encourage private investment, especially by small start-up firms.

5. Economic policies ought to be implemented which improve employment and training incentives, public expenditure for human capital accumulation, support of lifelong learning in IT skills, foreign languages, technological culture, entrepreneurship and social skills, digital literacy.

6. In the area of human capital, the return of experts to their home countries would be highly desirable, so policies must be devised which would bring back emigrated citizens.

7. Increasing investment in R&D will have little sense if the research systems do not have enough qualified researchers at its disposal, or if it cannot attract them and guarantee their mobility. A correct matching of these policies is important, therefore the right combination of measures in the area of research, education, and employment, and coordinated action.

8. Within their longer-term S&T strategies, SEE countries ought to address the important question of innovation Vs. imitation, associated with the intra- and inter-sectoral specialization of their national economies, but at the same time coordinating their national S&T strategies with other SEE countries. Each SEE country should identify and focus on certain key national priority areas in specific sectors. The SEE countries are small countries, and a certain division of labor regarding scientific and technological specialization would be highly welcome.

5. CONCLUDING REMARKS

The situation regarding the S&T sector in most SEE countries is presently not very satisfactory. The political events of the 1990s, the negative consequences of the transition to a market economy, the recurrent economic crises and macroeconomic instability, have left very deep traces on all SEE countries, which have had their implications also for R&D. The most long-lasting effect of the events of the last fifteen years is the present low level of economic development, which clearly is also a major constraint for the development of the S&T sector. Most SEE countries have suffered from a declining level of public investment and a lack of private sector investment in R&D, poor efficiency in the distribution of available public funds, fragmented systems of S&T, and scarce and often outdated technological facilities. Though all SEE countries face complex tasks in this area, each country will have to define its own S&T strategy according to specific priorities and needs.

One common priority in all the SEE countries is to raise public awareness about the importance of the knowledge-based economy, recognizing the key role of innovation and technological progress, and the strong link between S&T and economic development. Potential EU members ought to improve the conditions for more private and public investment in education, research, and science, in line with the recommendations of the European Commission for its present member states. Only if these objectives are given due attention today, can an increase in the technological gap between the SEE countries and the EU be prevented. The right balance must be found between economic policies promoting a stable macroeconomic environment, and other types of policies which are to raise economic competitiveness, growth and employment in the longer run, such as those sustaining increased investment in human capital and R&D.

It ought to be stressed that the role of the government in S&T development remains crucial in all SEE countries. As today in the EU, the governments in the SEE countries ought to act as facilitators of R&S, by creating a fruitful regulatory framework and environment for various organizations to collaborate and conduct research. In addition, given the limited resources of the private sector available for the moment in most SEE countries, the government will also remain an important financier of R&D.

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15-YEAR PATH FROM NEW DEMOCRACY TO TOP-25 MOST COMPETITIVE WORLD ECONOMIES ESTONIA: FOCUS ON INTERNATIONALISATION PROCESSES

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1. INTRODUCTION

In the today's complex world, for any country it is vital to be competitive. There is no standardized recipe for how to reach a competitive position, and how to sustain it. Each case is different and can hardly be replicated to 100%.

One of the sources of competitiveness is a wisely conducted policy of opening the economy and making a country an attractive investment destination. In order to implement this policy, a number of macroeconomic and microeconomic processes, which would increase the productivity, boost innovation and encourage market players to participate in internationalisation initiatives, are necessary.

In this article, a brief review of the post-Soviet internationalisation of Estonia, one of the most successful post-communism countries, is provided. In the first two parts, a general discussion of competitiveness and internationalisation is presented. Then the description of the Estonia's case follows. As a reference case, the success of Finland, one of the competitiveness' front-runners in the recent years, is analysed. In the concluding remarks, a short discussion is provided on whether the success of Estonia is sustainable, and whether any Finnish experience could be useful for Estonia.

2. WHAT IS COMPETITIVENESS?[1]

In this section, brief notes on the concept of competitiveness are provided. The literature on this subject is plentiful and this section is rather a glimpse of some ideas, rather than a comprehensive summary of all the existing frameworks.

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[1] The main sources used in this section have been: Porter, M.E. (1993), Sölvell, Ö., Lindqvist, G., & Ketels, C. (2003), Lopez-Carlos, A., Altinger, L., Blanke, J., Drzeniek, M., & Mia, I. (2006).

2.1. Competitiveness on National Level

A traditional view on competitiveness mainly involved the assessment of the country macroeconomic attractiveness (incl., exchange rate stability, low inflation, etc.), followed by a detailed analysis of political, social and legal context. Also, the natural endowments (e.g., natural resources) were taken into account to a certain extent.

A view, developed by Prof. M. Porter, made the notion of competitiveness much broader, with a specific emphasis on the microeconomic environment and productivity. Namely, a country's competitiveness depends on the productivity of different factors, not their mere existence. The more efficient a nation is in its leading industries, the more competitive it is. Thus, if a country, possessing abundant natural resources, does not achieve productivity in these industries and creates little value-added, it will not be competitive, especially in the long run. For instance, this used to be a problem of Russia for many years, where natural resources (e.g., oil, timber) were largely exported as raw materials, rather than as products with value-added.

It is important to mention that the general nation's/market's attractiveness matters, not the ownership of the companies operating there. Also, it is misleading to say that only traded industries are important since local industries contribute to the local innovation and technology upgrades and as a result make the whole region more attractive. Standard things can be produced everywhere, but special inputs are usually fine-tuned to the local environment and cannot be easily transferred.

Continuing with productivity and countries' competitiveness, a popular classification of economic development includes three main stages. For instance, the World Economic Forum (hereinafter referred to as "*WEF*") uses this classification for calculating its Global Competitiveness Index (hereinafter referred to as "*GCI*"). In particular, while determining GCI, WEF uses nine primary dimensions. If to arrange these dimensions in sub-categories, the stages identified are as follows.

Table 1. Stages of Economic Development.

Dimensions	Sub-Groups	Stage of Economic Development
• Institutions • Infrastructure • Macroeconomy • Health and Primary Education	Basic Requirements	Factor-driven economies
• Higher Education and Training • Market Efficiency (goods, labour, financial) • Technological Readiness	Efficiency Enhancers	Efficiency-driven economies
• Business Sophistication • Innovation	Innovation and Sophistication Factors	Innovation-driven economies

Source: Lopez-Carlos, A., Altinger, L., Blanke, J., Drzeniek, M., & Mia, I. (2006): **Part I. The Competitiveness Indices,**
http://www.weforum.org/fweblive/groups/public/documents/wef_member_pdf/gcr_0607_1_1_gcindexes.pdf
[Accessed 7.01.2007]

Briefly, in factor-driven economies, natural resources often play a vital role in determining the competitive position of a country; price-based competition is prevailing and productivity and wages are low. For sustaining competitiveness, a stable macroeconomic situation, well-

functioning institutions, suitable infrastructure and workforce in good health with at least primary education are essential.

Gradually, countries move into the efficiency-driven stage of their economic development, which is accompanied by rising wages, productivity and product quality. To remain competitive at this stage, it is necessary to assure efficiently functioning markets, advance in technologic growth and promote higher education and more sophisticated training. When being at this development phase, a country usually starts building its positions as a host for inward investments. Also, the country tends to invest more itself.

At the highest economic development stage, the innovation-driven stage, it becomes even more difficult to retain the high standards of living and stay competitive on the global arena. This is only possible if a country is able and ready to innovate and compete with new products and technologies via continuously improving business processes. At the innovation-driven stage, countries can strengthen their investment positions further.

Thus, as a country is moving through the stages of economic development, the importance of basic requirements is diminishing and the importance of innovation and sophistication factors is increasing.

The ultimate goal of countries should be to advance from factor-driven economies competing in low-cost inputs to efficiency-based economies reaching efficiency through local and foreign investments and to innovation-based economies, which are competitive due to their ability to deliver unique products and services. The innovation will lead to productivity and to prosperity. The special importance of innovation-driven productivity exists in the economies, which have reached their peak of labour participation growth and workforce growth. In such nations, the increase in productivity and consequently in the general standards of living can be largely attributed to the innovation.

To recap this brief discussion of competitiveness, created vs. inherited competitiveness should be touched upon. Namely, inherited competitiveness in terms of e.g., natural resources can be potentially dangerous for a nation's development since relying upon financial flows coming from the resource sales, the nation can be unwilling to innovate (e.g., Norway, which is almost totally dependent on the oil). Also, in such economies, the government is prone to excessive regulations of the economy and strategic industries, supporting them even if they are inefficient and restricting free competition. All this makes the nation less competitive on the world arena. Created competitiveness, on the other hand, is driven by the companies' ability to innovate and create new possibilities for their industry development. The success of such companies eventually leads to the increased attractiveness of the country (global attractiveness) and brings foreign players there, which reinforce competition and/or enrich the local market with new skills and expertise as well as often with financial resources. The global attractiveness leads to the global reach of the companies and lets them enter the world arena in an easier way.

2.1. Competitiveness on Company Level

On the level of companies, competitiveness is supported by the sophistication of the companies' operations and strategy on one hand, and quality of microeconomic environment – on the other. Prof. Porter has developed a specific framework for analyzing the microeconomic business environment, i.e., "Diamond" (see below).
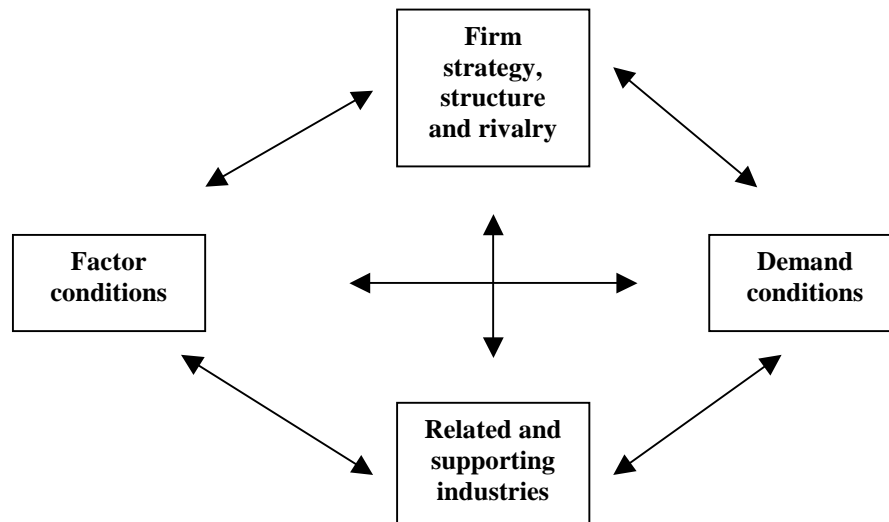
Figure 1.   Diamond model.

Source: Porter, M.E. (1993): **Competitive Advantage of Nations,** US: Harvard Business School, Management Programs

As seen above, the Diamond includes factor conditions, demand conditions, related and supporting industries, and firm structure, strategy and rivalry. All of these components are inter-related. Generally, the more rivalry, the less inherited resources and the more sophisticated local demand, the more impulses are there for the companies to innovate. In particular, rivalry makes companies upgrade the existing technologies, and refuse from former inventions, which become obsolete. Sophisticated local demand adds stimuli to this innovativeness. Regarding resources, in the absence of the resource preconditions and/or in the environment with a constrained resource base, the companies start developing creative solutions. For instance, in Japan, with very high population density and little free space available, the miniaturized solutions for various products emerged. Overall, under all such competitive pressures, companies have more incentives for sustaining their efficiency and improving it, they are constantly innovating, and gradually can move from responding to the existing demand to creating new niches and thus creating demand. In turn, this will add even more sophistication to the market. Such a virtuous circle may sound counter-intuitive to the proponents of another Porter's model, 5-Forces, according to which the less competition the easier it is to survive in the market: thus, the most preferential position would be a monopoly. However, here it should be mentioned that 5-Forces handle more short-term performance, whereas Diamond concerns the long-term profitability and growth. And thus, both of them are true, but serve different purposes of analysis.

In general, companies should not act in isolation from the government or any other players (e.g., education institutions, financial institutions), and true competitiveness is most effectively reached when all of them act together. Likewise, none of government policies (e.g., social, economic, political) can be initiated individually, rather a common goal should be established and all policies should be pursued simultaneously for reaching this goal.

3. WHAT IS INTERNATIONALISATION? [2]

As in the case with competitiveness, no elaborated review of all the internationalisation paradigms is presented. Rather, only some issues are touched upon.

3.1. Internationalisation Drivers and Strategies

Concerning the internationalisation drivers, the main of them are usually the following:

- A small home market

- Competitive pressures

- Government policies favouring internationalisation initiatives

To respond to these drivers, firms may use their competitive advantages, which, for instance, include unique assets possessed by a company (e.g., patents, technologies, etc.) and/or a beneficial geographical organisation of the company's assets. Internationalising in this way, the company is searching for a new market, higher efficiency (e.g., in terms of cost reduction) and/or better factor inputs (e.g., labour, infrastructure, etc.). These strategies are *asset-exploiting* strategies.

Alternatively, other companies may not possess any distinct competitive advantages, which would allow them to use asset-exploiting strategies for internationalisation. Such companies use *asset-augmenting* strategies. In particular, they go to foreign markets to acquire readily created competitive assets (e.g., R&D, brands, etc.) there. In the today's competitive economy, almost any unique advantage can be lost rather quickly. Due to this, asset-augmenting strategies are now becoming more and more common and are used more frequently than asset-exploiting strategies. In this way, companies are trying to catch up with the latest advances in the technologies and managerial competences. However, in many cases, it is not possible to rigidly distinguish between asset-exploiting and –augmenting strategies since companies can have mixed motives for internationalisation.

3.2. Internationalisation Modes

Based on their direction, internationalisation processes can be broadly classified as inward-looking and outward-looking. The primary internationalisation modes used when internationalising with an inward-looking aim are as follows:

1. Importing/sourcing

2. Being a licensee from a foreign company

3. Setting up joint ventures in the home country with foreign companies

4. Being a wholly owned subsidiary of a foreign company.

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[2] The main sources used in this section have been: Beamish, P., Morrisso, A., Rosenzweig, P., & Inkpen, A. (2000), Hill, M. (1997), World Investment Report 2006.

The primary internationalisation modes used when internationalising with an outward-looking aim are as follows:

1. Exporting

2. Licensing to a foreign company

3. Setting up joint ventures in a foreign country with foreign companies

4. Setting up a new company abroad (greenfield) or acquiring a wholly owned company abroad.

Each of the modes has own advantages and disadvantages, and a particular method has to be chosen depending on the company's objectives as well as the market situation.

When a company becomes a part of a joint venture abroad or sets up or acquires a company in a foreign country, then the investor creates a "lasting interest" abroad. Consequently, the internationalising company is making a foreign direct investment (hereinafter referred to as "*FDI*")[3]. In relation to FDI, investment development path (hereinafter referred to as "*IDP*") theory proposed by Dunning in the 1980s should be mentioned. According to the assumptions of IDP, as a country advances in its industrial and service sectors, the firms are developing firm-specific advantages, which enable them to compete more effectively on the international markets. Thus, the share of outward investments increases along with the general improvement in the country's economic development. In total, five main stages of IDP are distinguished. They are summarised below:

Table 2. IDP Stages

Stage	Brief Characteristics
I	- Few country-level factors and generally unattractive market for inward FDI - Only possible attractions: natural resources - Low likeliness of outward FDI due to almost non-existing firm-specific advantages
II	- Rise of incomes - Improvement in location-specific advantages - Increasing inward FDI - Still low outward FDI due to continuing development of local companies
III	- Increase in local companies' competitiveness - Resulting gradual decline in inward FDI and increase in outward FDI
IV	- Ability of most local companies to efficiently compete with rivals both in the local and foreign markets - Equality between outward and inward FDI or preponderance of outward FDI over inward FDI
V	- Closeness of the net investment position to zero - Relatively similar magnitude of inward and outward FDI

Source: World Investment Report 2006.

Generally, the stages of the IDP theory are interrelated with the stages of economic development discussed in the section above.

As for the host countries that are considered the most preferable for internationalising, there are a number of theories regarding this. One of the most popular theories stays in the

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[3] Refer to OECD Benchmark Definition of Foreign Direct Investments (1996), International Investment Perspectives (2006).

assumption that companies tend to expand to the neighbour markets, which they are more aware of and whose business culture, language, and other traits are similar to the home country. As the companies familiarise themselves with these first internationalisation markets, they move further away from their home countries. Such an incremental internationalisation approach was first described by Johanson and Vahlne in the 1970s and is called Uppsala model.

Nevertheless, not all internationalisation processes are as simple as those, and the mere geographical proximity does not always play a decisive role. Other conditions like government policies, favourable regime for inflow of foreign investments, market size and sophistication, availability of necessary resources, and other are also important determinants for the host country. So, reinforcing Porter's postulates, a nation should be attractive in all respects.

4. HOW HAS ESTONIA REACHED ITS CURRENT COMPETITIVENESS?

Starting from the re-establishment of independence in 1991, Estonia, alike with other Baltic countries, has gone through remarkably rapid and successful economic development. In the latest Global Competitiveness Report 2006-2007, compiled by WEF, Estonia is ranked the 25th in the GCI[4], outperforming all the former Soviet Republics as well as all the new EU members, which joined the EU in 2004 and 2007. WEF believes that Estonia is now in transition from the efficiency- to innovation-driven phases of economic development. This places quite serious requirements on the country in terms of sustaining its recent performance and making it even better.

4.1. Soviet Legacy in Brief

Prior to 1991, Estonia had had a very limited experience of being independent. Most of the years of its existence, the country had been under a foreign rule. Estonia was independent only during a short period of around 20 years, between two world wars in the 20th century. Before regaining independence in 1991, Estonia had been a Soviet republic for about 50 years, and before that Germans, Danes and Russians governed it. The peculiarities of the Soviet Union's economy are well-known and will not be discussed here.

The facts worth mentioning are the following: since basic education was compulsory, 100% of the Estonian population was literate. The most developed industries were food processing, textiles and clothing, paper, chemicals and electronics: for instance, by the end of the Soviet era, there were 13[5] plants manufacturing electronics in Estonia. Respectively, in these sectors, there was very well-educated and skilled workforce; however, the productivity was generally very low. To support the leading industries' growth, a number of research institutes were working. The road infrastructure was generally in a bad condition, and the telecommunications included fixed telephone lines only.

Among the natural endowments of Estonia, a beneficial geographical position should be mentioned: i.e., Estonia is located at the Baltic Sea, which is a gateway to Russia and Scandinavia. Another important natural resource is forest.

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[4] Refer to http://www.weforum.org/en/initiatives/gcp/Global%20Competitiveness%20Report/index.
[5] Refer to Sölvell, Ö., & Porter, M.E. (2004).

4.2. Development after Regaining Independence

Compared to other Soviet Republics, three Baltic Republics and Estonia in particular, were considered relatively richer and "more Western". After re-gaining independence in 1991, Estonia faced the cruel reality of being a country in transition, an emerging market economy. All the democratic institutions needed to be established from the scratch. In addition, the rising inflation, declining GDP and rocketing unemployment had to be handled under control.

The paramount political choice made at that time was to become West-orientated and integrate Estonia into the world markets. By now, Estonia is a member of WTO, NATO and the EU, which signals that those decisions were brought into life.

To easier open the economy, a monetary reform was necessary and in 1992 Estonia began using its own currency, the Estonian kroon, pegged first to the German mark, and after abandoning the marks – to the Euro[6]. The kroon was made fully convertible and no capital flow restrictions were implemented. Foreign companies investing into Estonia had virtually equal rights with the local players. Also no restrictions on earnings repatriation existed. Joining a number of strategically important free trade agreements and other documents (e.g., OECD Declaration on International Investment and Multinational Enterprise) also helped Estonia in creating a favourable investment and trade climate. Another important factor was a very favourable tax regime: i.e., no corporate income tax is levied on reinvested profits starting from 2000.

To make business interaction more efficient, Estonia has been paying close attention to the development of the IT infrastructure: the telecommunications market was gradually liberalised, and a number of e-initiatives were launched (e.g., E-government, e-voting, etc.). By now, according to the Estonian Informatics Centre[7], Estonia is in the TOP-10 of *Who Are Changing the World of Internet and Politics*. 90% of the Estonian population use mobile phones, and 95% of banking operations are carried out via Internet.

Nordic countries, and especially Finland, have largely contributed to the Estonia's success. Finland is located in the geographical proximity to Estonia and the Estonian and Finnish languages belong to the same language family. In the Soviet times, in the north of Estonia, it was possible to tune to the Finnish TV, and some tourism was allowed to Finland. Also, to a certain extent two countries share similar historical past, and in the period of world wars in the 20[th] century, a lot of Estonians fled abroad. For them, Finland was among the most popular and easily accessible destinations.

After the rebirth of the Republic of Estonia in 1991, Finland and Estonia had managed to develop close trade, business and tourism links. Finland had become one of the main export and import partners of Estonia, and the Finnish businessmen were among the first to involve the Estonian entrepreneurs into internationalisation processes. A great example of these early internationalisation moves was the opening of an assembly division of Elcoteq SE in Tallinn in 1992-1993.

Thus, Estonia gradually got a position of a highly attractive foreign investment destination and advanced in raising its own investment potential. Even despite the economic downfall

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[6] The current fixed exchange rate is EEK 1 = EUR 15.6466.
[7] Refer to http://www.ria.ee/27525.

caused by the Russian crisis in 1998, Estonia had still managed to recover the success already achieved.

The economy became very much service dominated, but no clearly leading clusters have yet emerged. Productivity began growing, and the growth of GDP was and still is higher than the average in the EU. The unemployment rate was, according to Statistics Estonia, around 5.4% in the 3rd quarter of 2006. Apart from those already mentioned above, some other factors that facilitated such development were e.g.:

- transparent government

- the successful privatization reform in the 1990s

- low corruption

- the continuously declining red-tape level in the process of establishing new businesses.

It should be mentioned though that the real income is increasing faster than the productivity, which may be dangerous in the long run. Also, the re-focus to services and the decrease of significance of some industries have not led to a clear specialisation in any knowledge-based industry. Another danger stays in the possible financial over-heating of the economy: in the recent years, the interest rates have been very low, which has led to a rapid increase in borrowings both by private individuals and institutions. Should the interest rates rise significantly, a lot of borrowers will find themselves in a difficult financial situation. Concerns are also raised regarding the real estate market: facilitated by the general improvement in the country welfare as well as by easy-to-get loans and a big number of speculative transactions, in recent years real estate prices have grown to extremely high levels. Due to such a somewhat non-justified price level, there are some prognoses that a bubble burst will happen soon.

Despite the issues referred to above, it is not an ultimate purpose of this article to discuss if the crisis is likely. Rather, in this article, a more retrospective approach is used to look at one of the facilitators of the Estonia's achievements in 1991-2006. In the subsequent parts, a short overview is made of some trends and drivers of the internationalisation process Estonia has gone through. Internationalisation is chosen for the analysis because the author is of an opinion that early internationalisation contributed significantly to Estonia's current competitiveness and thus can, to a certain extent, explain the success of the Estonian economy.

5. HOW HAS ESTONIA SUCCEEDED IN INTERNATIONALISATION?

5.1. Exports and Imports

To give more insights into the internationalisation profile of Estonia, first, the export-import relation should be touched upon. Below, the export-import statistics of Estonia is presented.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total export	19 043	21 283	29 586	35 232	35 025	53 900	57 856	56 991	62 628	74 614	96 924
Total import	27 441	34 936	48 930	55 221	50 439	72 214	75 082	79 479	89 430	104 878	127 743
Net	-8 398	-13 653	-19 344	-19 989	-15 414	-18 314	-17 225	-22 488	-26 802	-30 264	-30 819
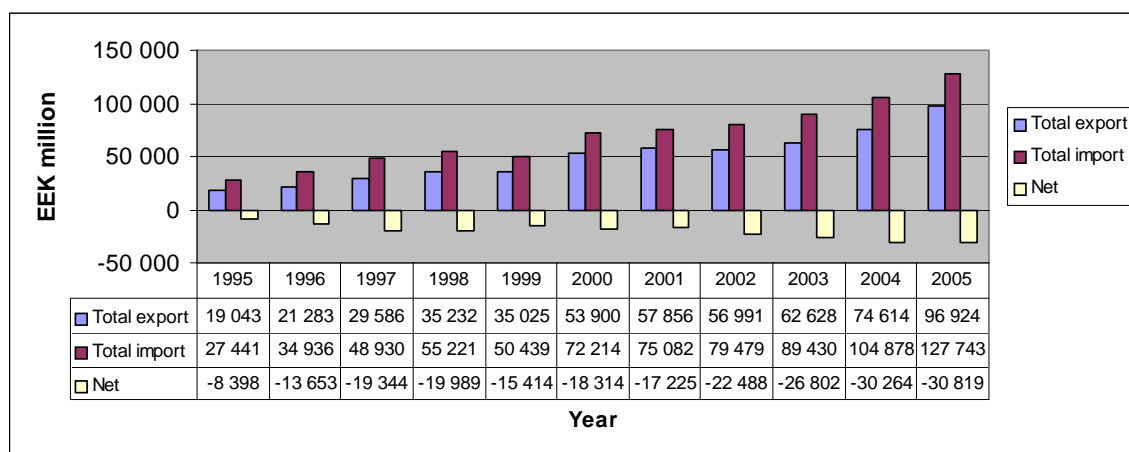
Figure 2.   Export and Import Dynamics, Estonia (1995-2005), EEK million.

Source: Online database of Statistics Estonia, http://www.stat.ee [Accessed 2.01.2007]; author's compilation

The export growth is generally considered a determinant of a country's competitiveness. As it can be seen from the table above, Estonian exports have grown significantly during the past decade. However, the net exports are negative. As a percentage of GDP, the dynamics of exports and imports is presented in the figure below.
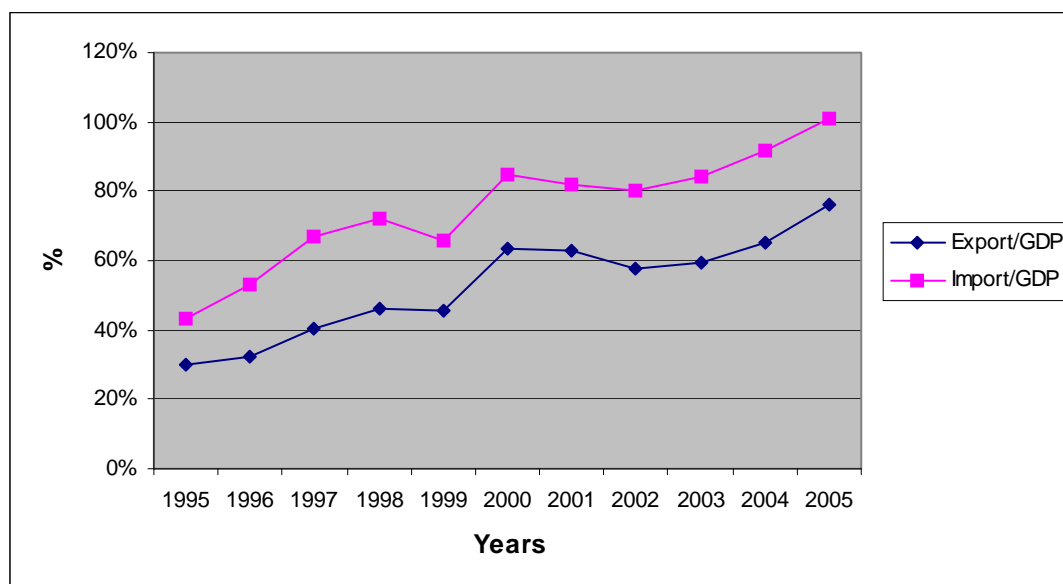
Figure 3.   Dynamics of Export and Import Relative to GDP, Estonia (1995-2005), %.

Source: Online database of Statistics Estonia, http://www.stat.ee [Accessed 2.01.2007]; author's compilation

It is worth describing the structure of exports and imports. On the export side, the articles, which continuously make up 40-60% of total exports, are wood and articles of wood and cork, textiles as well as machinery and mechanical and electrical equipment and appliances. On the import side, the main articles are very similar: these are also textiles, machinery and mechanical and electrical equipment as well as transportation equipment. The machinery and equipment are the most significant articles on both sides.

As for the target/source market composition, trade relations with non-CIS countries have expanded significantly. As mentioned, the Scandinavian neighbouring countries have become one of the main trade partners. A special remark[8] regarding the machinery and mechanical and electrical equipment should be made: in the late 1990s a number of Scandinavian telecommunications companies moved certain sub-contraction operations (mainly, assembling) to Estonia. First, spare parts were imported into Estonia, and afterwards the ready-to-use assembled products were exported primarily to the EU. This led to an increase in both exports and imports. Thus, the net exports of machinery and mechanical and electrical equipment are close to zero; also, if to remove the share of electronics from exports and imports, then the absolute volumes would not be so robust. In addition, the collapse of the world IT market in 2001 has diminished both the absolute volumes as well as the relative weight of machinery and mechanical and electrical equipment out of total exports and imports. At the end of 2005, the volumes were already higher than at the beginning of the IT industry crisis, and the relative share was also approaching the share of the end of 2000.

To sum up, being an open economy, Estonia does not apply trade barriers to imports. Also, being poor in basic natural resources as well as not having a diversified industrial profile, Estonia is forced to rely on imports in certain fields. Thus, the absolute amounts of imports will not decrease in the future. Concerning the import-export balance, it is difficult to assume that in the nearest years, Estonia will be able to replicate the success of some other export-driven countries. For example, Japan, without having any export-qualified natural resources, managed to reach a positive export balance due to its ability to absorb new technologies as well as apply, adapt and develop them further. In its essence, it is neither good nor bad to be an import- or export-relying country. What matters, is the nature of imports and especially exports. It is important to underline that Estonia is increasing the stocks of exports, thus becoming more and more involved in outward internationalisation processes. Nevertheless, it is dangerous for the long-term success that at the moment, the share of value-added products exported is not sufficient.

5.2. Licensing

Due to a lack of empirical data, this form of outward internationalisation is not considered in this paper.

5.3. FDI

According to the World Investment Report 2006 published by the United Nations Conference on Trade and Development (hereinafter referred to as "*UNCTAD*"), Estonia is placed to the beginning of Stage 2 on IDP. This essentially means that inward FDI is rising while outward FDI have not gained popularity yet. However, it needs to be mentioned that this estimation is based on 2004 data. Taking into account the economy's growth in 2004-2006, it can be

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[8] Refer to Burgess, R., Fabrizion, S., & Xiao, Y. (2003).

assumed that currently Estonia has moved along its investment development path closer to Stage 3. This assumption is also more consistent with the WEF's assessment of the economic development of Estonia.

As it is reported by UNCTAD, in the period of 1990-2000, the average FDI inflows to Estonia amounted to USD 261 million, and average FDI outflows from Estonia – to USD 38 million. According to the statistics of the Bank of Estonia (hereinafter referred to as "*BoE*"), during the period of 1998-2005 both inward and outward FDI have been increasing (refer to a graph below).
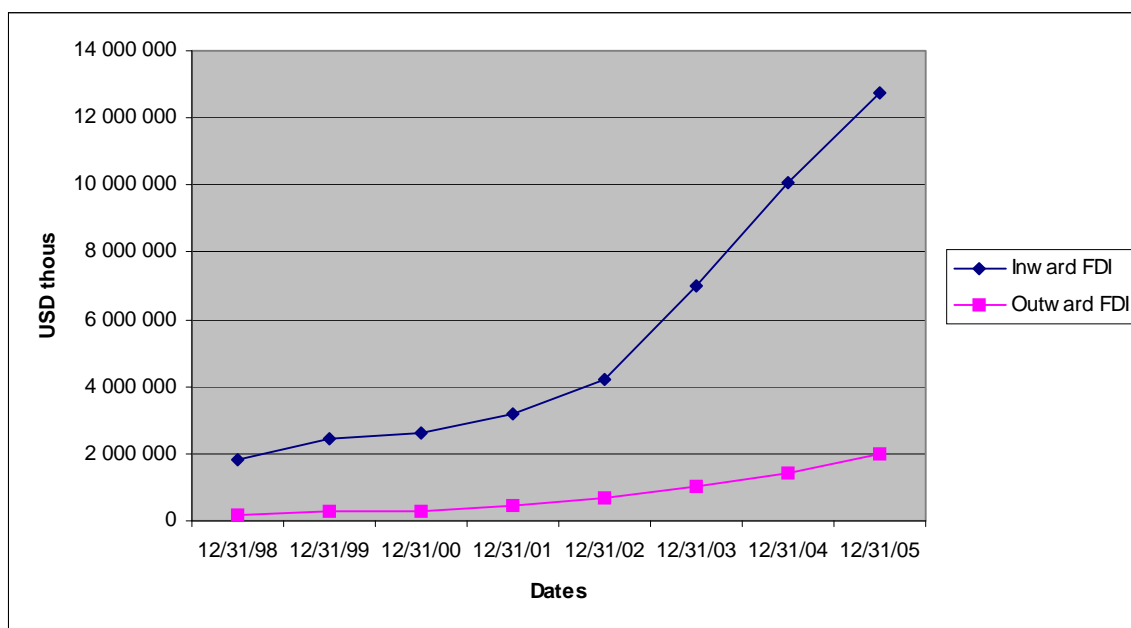
Figure 4.   Dynamics of Inward and Outward FDI, Estonia (1998-2005), USD thous.

Source: Online database of Bank of Estonia, http://www.eestipank.info [Accessed 9.01.2007]; author's compilation

As estimated by UNCTAD, the inward FDI stock in 2005 was around USD 12 billion, and of outward FDI – around USD 2 billion. As a percentage of GDP, inward and outward FDI stocks made up around 93.6% and 15% respectively. Based on these indicators, Estonia is well ahead of most Central and Eastern European countries.

In the UNCTAD's rankings by inward and outward FDI performance indices as well as inward FDI potential Index, Estonia's performance has been as follows:

Table 3. Estonia's Ranks in FDI Indices

Indices	1995-1997	1996-1998	1997-1999	1998-2000	1999-2001	2000-2002	2001-2003	2002-2004	2003-2005
Inward FDI Performance Index	24	14	16	18	22	21	10	16	4
Inward FDI Potential Index	55	47	40	39	40	38	32	34	NA
Outward FDI Performance Index	23	28	26	36	22	23	22	20	22

Note: Three-year moving averages, using data for the three previous years including the year in question.

Source: Online database of UNCTAD, http://www.unctad.org [Accessed 9.01.2007]; author's compilation

Regarding the Inward FDI performance index, it should be mentioned that in 2003-2005, the index amounted to 8.439. This shows that Estonia receives 8.439 times more FDI than its relative economic size. In terms of inward FDI, Estonia is considered a country with both high FDI performance and high FDI potential. After regaining independence in 1991, Estonia became an attractive host country for foreign companies, which expanded to the Central and Eastern Europe via greenfield investments or privatization of already working companies (including former state-owned enterprises). In the recent years, more and more inward FDI are made via reinvested earnings. For example, in 2005, according to UN, reinvested earnings made up 29% of all inward FDI to Estonia. Here a favourable tax regime has been one of the crucial drivers since as already mentioned, in Estonia, the companies pay a 0% corporate income tax on reinvested profits.

The Outward FDI Performance Index is much more modest and in 2003-2005, amounts to 1.761. In terms of outward FDI, the ranking is improving though there is still a long way to reach the front-runners. This suggests that Estonia is still in the process of building distinctive advantages to offer to foreign markets. Or alternatively, it has not yet fully succeeded in using asset-augmenting strategies and using foreign locations for acquiring created strategic assets.

As for the investor profile, Swedish and Finnish investors have made the majority of inward FDI. Estonian companies are mainly investing into Latvia and Lithuania. This shows that the Uppsala model seems to be valid for Estonia.

The changes in the breakdown of investments between industries are interesting to examine. For instance, as of 31 December 1998, the main three industries for inward FDI were (refer to online data of the BoE):

1. Manufacturing – 32.9%

2. Wholesale and retail trade – 23%

3. Financial intermediation – 21.9%

By 31 December 2005, the significance of financial intermediation has grown to 45.7% and made it the clear leader. On the opposite, the share of wholesale and retail trade has fallen to 7.8%, and manufacturing – to 13.3%, which still allowed manufacturing to stay in the TOP 3. The most attractive fields for inward FDI in 2005 were respectively:

1. Financial intermediation – 45.7%

2. Real estate, renting and business activities – 15.2 % (in 1998 – 7.9%)

3. Manufacturing – 13.3%%

Several most important reasons for the diminishing role of investments into manufacturing can be named. First, there is a lack of investment targets since most of Soviet plants are already privatised, and very few new targets have appeared due to the general orientation of Estonia to the service sector. Also, during 1991-2005, wages have grown significantly, and this has diminished the attractiveness of the Estonian market as a market with cheap, but well-educated labour force. Currently, some industrial companies disinvest from Estonia to move to cheaper destinations.

As for outward FDI, as of 31 December 1998, the most popular fields of investments were:

1. Financial intermediation – 57.1%

2. Transport, storage and communications – 19.1%

3. Real estate, renting and business activities – 7.3%

By 31 December 2005, the leading industries have remained the same although transport and real estate have swapped their positions, i.e.:

1. Financial intermediation – 45%

2. Real estate, renting and business activities – 22.8%

3. Transport, storage and communications – 10.8%

So, the financial intermediation is the front-runner in both inward and outward FDI. Banks have been one of the most important investors in Estonia: local banks actively expand to other Baltic countries and to Russia (e.g., Ühispank, Hansapank), and foreign owners of the biggest Estonian banks are increasing their investment stocks. Among recent cross-border M&A transactions made in Estonia, the acquisition of the majority stock of AS Hansapank (the biggest bank in Estonia and one of the biggest banks in the Baltics) by the Swedish FöreningsSparbanken AB should certainly be named. It had a value of USD 2.3 billion and was ranked the 50[th] in the UNCTAD's ranking of cross-border M&A deals with values over USD 1 billion completed in 2005.

Other big deals made earlier were, e.g., acquisition of a pulp and paper plant Horizon Pulp and Paper by Singaporean investors; partial acquisition of Eesti Telecom Group by Finnish and Swedish investors, and others.

To sum the section, it can be stated that Estonia has been very successful in attracting inward FDI into different fields. These FDI have helped the country in increasing efficiency, bringing new technologies and mutual exchange of knowledge and skills. The development of outward FDI has been more modest. It should be underlined, however, that as in the case of exports-

imports, there are no many FDI related to value-added products and this can threaten the sustainability of the current success.

6. WHAT DETERMINED SUCCESS OF FINLAND? [9]

In recent years, Nordic countries are taking the lead in the global competitiveness rankings. Finland is among the clear world leaders, and in the latest GCI, Finland takes the 3rd place. In the business competitiveness rankings and the rankings of quality of the national business environment compiled by WEF, Finland is also continuously on the 1st – 3rd places in 2001-2006. Refer to a figure below to see the exact matrix of Finland's performance in different dimensions in 2006.
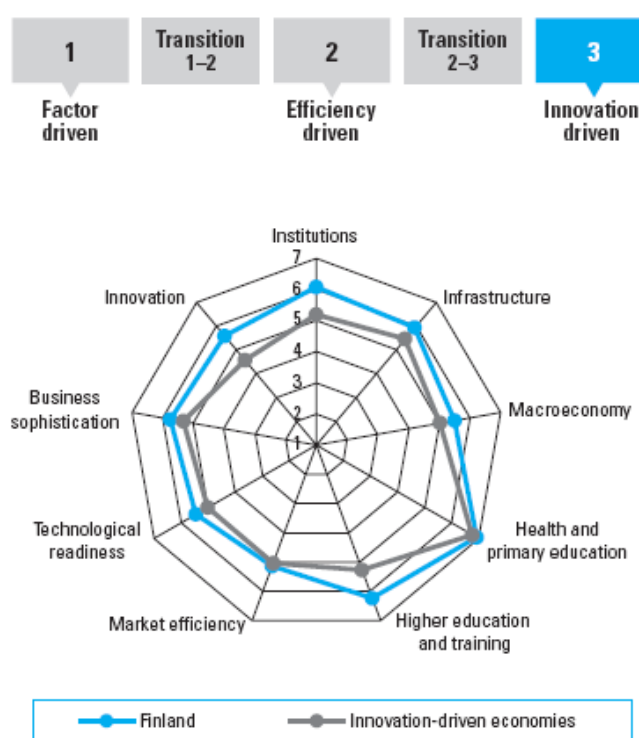
Figure 5.   Finland's Scores in Global Competitiveness Index, 2006

Source: 3.2. Country/Economy Profiles. Finland, World Economic Forum, http://www.weforum.org/pdf/Global_Competitiveness_Reports/Reports/gcr_2006/finland.pdf [Accessed 8.01.2007]

How and why did Finland move to one of the most competitive nations in the world?

6.1. Macroeconomic and Microeconomic Environment Prior to 1990

Historically (up till 1990), Finland has relied on its natural resources and long coastline. Manufacturing industries dominated the economy and the service sector was lagging behind. The main clusters were pulp and paper, wood products and engineered metal products, incl.

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[9] Historical information about Finland has been mainly based on Sölvell, Ö., & Porter, M.E. (2004).

shipbuilding. The four pillars of the Finnish macroeconomic business environment can be briefly characterized as follows:

- Geographical position: quite a favourable location close to the main export partner (the USSR), to the sea (which supported the logistical development and shipbuilding industry maturing) and to the historically close Nordic partners

- National legacy and culture: historical ties to Russia (Soviet Union); open economic policy to Western Europe and Nordic neighbours

- General institutions and legal framework: historically, a large public sector and welfare aspirations, which resulted in high transfer payments and public spending; sophisticated public education and university system (20 universities and other education institutions); lax enforcement of competition

- Macroeconomic environment: fixed nominal exchange rate; centralised wage bargaining; increasing fiscal budget (until the 1980s); after the World War II, large devaluations on a decade basis; tight financial regulation and restrictive credit approval; increasing inflationary pressure (due to increasing government spending)

To analyse the national diamond of Finland, which existed prior to 1990, the following main characteristics can be mentioned. On the side of firm strategy, structure and rivalry, such a situation existed. The corporate sector was dominated by large and often highly diversified groups (e.g., Valmet, Nokia). Other parts of the economy were represented by small companies tied in cooperatives. Companies were very efficient in deploying resources: e.g., the pulp and paper industry outperformed competitors even despite slower growing forests and higher energy costs. The productivity was growing and by the 1980s the total factor productivity outperformed many other European countries. The investment rates and GDP per capita were growing; the wage dispersion was low. Companies enjoyed strong ties with banks, and generally competition and rivalry were not actively promoted. In particular, M&As were decided by a small elite of managers and owners together with banks and government authorities.

As for factor and demand conditions as well as the related and supporting industries, Finland used inherited natural resources (e.g., woods) as a basis for some main industries (pulp and paper; wood products). A long coastline was a driver for the development of shipbuilding and logistics. Well-educated labour resources facilitated the economic development. The efficient development was also fostered by the sophisticated demand for the products of some leading industries (e.g., shipbuilding). Related and supporting industries in pulp and paper, wood products and engineered metal formed the main clusters in the Finish economy.

In the 1980s, the government implemented a series of policies to improve the frequent opinion of the Finnish economy as losing grounds internationally due to excessive government spending, rising inflation and inefficient financial markets. The policies included:

1. Increased R&D expenditure as a share of GDP

2. Increased focus on technology development (e.g., creation of National Technology Agency, Science and Technology Council)

3. Liberalisation of financial markets in the 2nd half of the 1980s

4. Ease of access to international capital markets

6.2. Crises of the 1990s and Subsequent Stabilisation

Despite the measures listed above, in the 1990s, Finland was hit by two crises simultaneously with a sharp GDP and export value decline as well as unemployment growth, i.e.:

1. Domestic financial overheating followed the liberalization of financial markets (i.e., huge credit increase, sharp rise in real estate prices, inflation growth, fall in savings rate)

2. Economic and financial crisis followed the unfavourable world economic conditions (i.e., loss of the main export partner, the USSR, after its collapse; increased interest rates in Europe after the reunification of Germany; worsening terms-of-trade due to the falling prices in the pulp and paper industry, the Finnish main export industry).

As a result of these crises, the currency came under pressure, which led to a devaluation and abandoning of the fixed exchange rate regime in 1992, which was replaced by a floating rate. In general, Finland faced a situation when it had to decide how to survive through these disturbances. The two basic choices were: either to give up and to abstain from any active steps; or to undertake conscious efforts for reviving the economy. Finland chose the second option. The main stabilization policies were:

- Tight macroeconomic policies

- Stabilisation of tax rates

- Decrease in government spending

- Adoption of inflation target

- Use of interest rates as a policy instrument

- Continuation of science and technology initiatives (with a specific focus on IT)

- Continuation of financial markets' liberalization (e.g., allowance to borrow in foreign currency, removal of restrictions for foreign company ownership, emergence of venture capital (hereinafter referred to as "*VC*"), etc.

Gradually, GDP, inflation and interest rate indicators improved. However, the policies that contributed to the Finland's development as one of the most successful economies in the world were science and technology initiatives. The Finnish government initiated a study of national competitiveness to determine, how to reach the highest success. To boost the innovative capacity, the Centre of Expertise Program was formed with a task of strengthening the regional competitiveness with the increased innovation, renewed production structure and creation of new jobs. The Cluster Program was created to support cluster-specific R&D efforts. Also, 15 incubators were set up in proximity to clusters to make VC available for start-ups. In addition, regions were given more freedom in determining their technology

policies (Centre's of Excellence concept). The central government policies concerned technology development, education promotion and competition encouragement. All this made the competitive landscape active and receptive to new solutions. Combined with fairly sophisticated local demand and simplified access to the capital, such an ability and desire of companies to innovate and governmental support of these initiatives increased the demand for the skilled employees, which led to the expansion of the higher education capacity. Overall, the Finnish business environment became very dynamic.

Such favourable domestic development was also reinforced with a political re-orientation to the West, increasing openness of Finland to the outside world and integration into Europe (e.g., joining the EU). This, in turn, attracted FDI, indicating that the Finnish market became globally attractive and led to several mergers between Finnish and foreign companies, giving the Finnish companies global reach.

The composition of the economy also changed, i.e., in 1999 telecom became the leading industry in terms of value added followed by pulp and paper, chemicals and machinery. In particular, Finland was very successful in adding created competitiveness (e.g., growing R&D, participation in joint Nordic telecom activities, competition promotion) to its inherited legacy (e.g., non-monopolised telecom sector). Again, as in the case of the general development of the Finnish economy, the development of the telecom and mobile phone cluster was supported by good interplay between the government, the companies and other related and supporting institutions. As a result, Nokia has gained its superior positions on the world arena and in general, Finland has become a very sophisticated IT market.

So, in Finland, it was realized that the government actions had direct impact on the national competitiveness, and that all reforms (economic, political, social) should be pursued in parallel and be directed at reaching the same goal (in the case of Finland, a move to a true innovation-driven economy). The cluster model employed enabled to coordinate the government efforts with those of academia, institutions for collaboration, financial institutions and companies. This cooperation between different stakeholders and their aligned actions created a favourable soil for development, and led to the increased competitiveness of Finland as a nation.

7. CONCLUDING REMARKS: WOULD IT BE BENEFICIAL TO LEARN FROM FINLAND?

To conclude the article, it is important to emphasize that although Estonia has been very successful in opening its economy and attracting investors, it is not easy to sustain this performance. Despite all Estonia's success, a number of problems, touched upon in the preceding sections, exist. Firstly, the growth of productivity in Estonia has so far been insufficient to offset the increase in real income, and generally income has risen faster. A related problem is that, having advanced in its internationalisation processes, Estonia has not reached a significant share of value-added products in exports and outward FDI. This moderate contribution of value-added also signals of insufficient productivity. In addition, Estonia has not developed any clear specialisation in knowledge-based industries, which might hinder its movement to the innovation-driven phase of economy.

Here the experience of Finland is very useful to take into consideration: in particular, their science and technology initiatives coordinated by the government. As described, the Finnish government made consistent steps to analyse what the main drivers of the national competitiveness are, and how to organise all the stakeholders in the best possible way for achieving competitiveness and becoming a true innovation-driven nation. Based on this, some advice can be proposed to the Estonian government, e.g.:

- Make the goal of becoming an innovation-driven nation explicit for all the inhabitants of Estonia and target at reaching society support to this goal

- Initiate more joint actions, which universities, politicians and industry representatives could participate in, and determine how to move towards the innovation-driven stage in the best possible way

- Make the society more aware of the initiatives already conducted (e.g., the strategy *Knowledge-based Estonia*) and of their results

- Encourage more cooperation between universities and industries to ensure that students get most up-to-date knowledge and universities are informed of the main problems industry representatives face when recruiting fresh graduates

- Support knowledge-based industries and promote their development (e.g., biotechnology, IT)

- Review the policy of financing young researchers to motivate them to focus on research rather than combine research with some other work

If such deliberate actions are undertaken to make the Estonian economy more innovation- and knowledge-driven, they will undoubtedly bring their fruit. Nevertheless, it should be reinforced once again that to be successful, such measures have to be pursued in cooperation with all the interested parties.

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THEME III

NEW INSIGHTS FOR ECONOMICS AND POLITICAL ECONOMY

III-2

The role of foreign direct investment (FDI) and public sector institutions

POLITICAL ECONOMY OF THE RELATIONSHIP BETWEEN GOVERNMENT AND BANKS IN FINANCIAL INTERMEDIATION

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1. INTRODUCTION

Since the beginning of the 1990s there has been a large increase in the number of scientific papers in which the link between financial intermediation by banks and economic growth is being analyzed. The majority of them are based on econometric models and the focus of research is on investigating the direction of causality between financial intermediation and economic growth. Although significant progress has occurred in econometric estimation techniques, econometric results are still plagued by the lack of appropriate data and often not robust to inclusion of various control variables as well as to changes in the observed time period or countries in the sample. In addition, researchers have neglected political economy issues in their econometric models. This primarily refers to incentives that determine the behavior not only of bankers, but of government officials as well.

Due to the fact that banking sector determines who will use society's savings, political factors have always shaped policies directed at financial system and its functioning. Economic historians Sylla et al. (1999:1) wrote that the more historical roots and the development of modern financial system are studied, the more obvious it becomes that in most critical points when financial system changed, for better or worse, the role of government was of crucial importance. This does not surprise because government has always needed financial funds, mostly for political ambitions, of which the most important one has been war financing. Apart from needing financial funds, the government also had the power of coercion which enabled it to collect taxes. This also means that it had greater ability of borrowing and returning debts compared to the private agents. Furthermore, the government had the power to create financial institutions and markets, as well as to influence their development, through legislation.

The goal of this paper is to analyze the interaction between government and banks from the political economy point of view. It will be done by looking into financial market ad government failures. The paper will show that corruption of government officials and the influence of special interest groups can distort financial intermediation. The theoretical

findings of the paper might improve future econometric research on the role of financial intermediation by banks in economic growth.

2. FINANCIAL MARKET FAILURES

Financial markets, in comparison to other markets, have its specific characteristics which also manifest in their failures. Since one of the main roles of financial markets is collecting and processing information, one can assume that problems mostly occur in that segment. The problem of information as a public good appears on financial markets in at least two contexts (Stiglitz, 1994). The first one relates to pieces of information on the solvency of financial intermediaries, which are important for investors or depositors who want to take a loan or entrust their funds to a specific financial intermediary respectively. The second problem concerns pieces of information on management of the financial intermediaries, which influences the risk and the rate of return on investments. In both cases the problem is actually in the information asymmetries, which is especially pronounced with banks since they are less transparent than other companies. For example, in banking it is not easy to estimate the loan quality, or in other words, one can hide the true quality of the loan for a long time.

With asymmetric information, markets do not have to be in equilibrium and Pareto efficient. On the loan markets, investors who are ready to pay the most need not be the ones who can ensure the highest return. Expected return can fall as the interest rate goes up since the risk of default increases. The consequence can be credit rationing; even when there is excess demand for loans, banks will not necessarily increase interest rates. Instead, interest rates will be set on a level which maximizes banks' expected return. This situation was first described by Stiglitz and Weiss (1981). The problem is also that on financial markets private and social returns are not aligned and this is why markets can continuously avoid financing certain projects. Good projects can be forced out from the market, and the biggest part of loans can go into consumer goods and real estate.

Bank management is in charge of efficient allocation of resources, but the question is: who monitors the managers? Who supervises the supervisory board? According to Stiglitz (1994), monitoring is a public good, which means that there is insufficient supply of it: shareholders and depositors do not put enough effort in monitoring financial intermediaries. This can have damaging consequences for two reasons. The first one is that managers know that they are not being monitored which stimulates them to undertake projects with very large risks, or to use the assets of the intermediary for their personal benefit. This problem is described as moral hazard and it can be explained by the principal agent relationship: the agent has always got the incentives to make decisions which benefit him at the expense of his principal. For example, the agent (bank manager) is prone to offer high interest rates to attract depositors and then invest in risky projects with high rate of return so that he can keep a large share of net profits. From microeconomic perspective, bank managers operating as agents will lead to misallocation of resources because they will undertake risky activities that maximize their private expected return, and not the expected gain for the society as a whole (Montiel, 2003:242). The second reason for damaging consequences is that insufficient monitoring builds distrust among investors. Therefore, fewer funds will be allocated through financial intermediaries who hence will not be able to perform their functions as they otherwise could.

Apart from moral hazard, a specific characteristic of financial intermediation is adverse selection. One of the most important functions of banks is choosing between alternative projects and monitoring the use of allocated funds. With the mere fact that there are "bad" companies on the market, it is difficult for the good companies to obtain funds because potential investors (banks) do not easily distinguish these two groups of companies. Selection therefore has its consequence - cost, and besides, bad companies can "spoil" the market.

Further characteristic of financial markets is that failure of only one financial intermediary can have significant effects. A failure of one bank can disrupt the flow of loans to certain investors. Furthermore, after the bank failure investors have to decrease the volume of their business activities, which then influences their clients. The domino effect should also be taken into account: even if collapse of one intermediary does not cause financial panic, some depositors will withdraw their funds out of fear that their bank might fail, too. Banks do not take into consideration these externalities, which makes the public interest for financial intermediaries' solvency greater than private interest of owners and managers.

Important characteristic of the banking system is imperfect competition, that is, limited competition. Each bank has data on its clients in its database. If a certain client is reliable for one bank, this information is not automatically transmitted to another bank. For the other bank this client is not known and hence riskier than to the first one. Therefore, if there are ten banks on the market, this does not mean that they are all available to potential investors (Stiglitz, 1994:29). Competition can be observed as a double edge sword. On one hand, lack of competition can lead to higher interest rates, while on the other hand, high interest rate bring larger profits which enhance the strength of financial intermediaries and decrease the risk of insolvency.

Uninformed investors cannot be considered as a market failure, but they can be a justified reason for state intervention (Stiglitz, 1994:31). Banks can misuse the fact that their average clients do not understand compound interest, indexing etc, and this is why regulation should be created in a way which disables banks from abusing uniformed clients. It is questionable how far regulation should go with disclosing information, since the trading on financial markets is based on the amount of information one possesses.

3. GOVERNMENT FAILURES

State intervention on financial markets is usually justified by afore mentioned market failures and externalities. Second viewpoint by which government intervention is necessary finds its justification in basic ingredients which are required for a developed financial system (Rajan and Zingales, 2003:18): a) protection of property rights; b) accounting standards which promote transparency; c) legal system which enables inexpensive enforcement of contracts; d) regulatory infrastructure which protects consumers, encourages competition and controls excessive risk taking. Although all this might be achieved by private agreements, government has the ability to coordinate standards and use coercion. Government intervention is larger in banking sector than in other sectors because banking is generally considered vital for the economy and is an important source of fiscal revenues. Apart from intervening directly (through for example subsidies to certain industrial sector), and controlling the banking system though regulation, the government can influence financial intermediaries by monetary

and fiscal policy; e.g. inflation has significant impact on financial intermediation, as well as taxing.

Montiel (2003:2002-205) describes three types of policies by which government can enhance market efficiency: a) enabling policies; b) policies directed towards developing financial market infrastructure; and c) policies created to resolve special problems in financial sector. Enabling policies are those that improve the environment in which financial intermediaries operate. They are not directed towards financial sector exclusively. Enabling policies decrease risk and enhance the ability of financial intermediaries for monitoring. They also include avoiding large tax burden on financial intermediaries and their clients. Enabling policies have an institutional and macroeconomic dimension. Institutional policies promote financial sector development by enabling financial intermediaries to deal with credit market imperfections (which are a basis for external financing premium) in a less expensive way. These policies decrease information costs and costs of contract enforcement by imposing an adequate legal framework. The main components of an adequate legal framework are: defined property rights, accounting standards, standards on information disclosure, insider trading laws, commercial laws and bankruptcy laws which protect shareholders and creditors, and efficient judiciary. Macroeconomic dimension refers to policies which influence external financing premium.

Policies directed at infrastructure include provision of regulatory and supervision framework which promote competition in financial sector and decrease moral hazard problem by preventing excessive risk taking. Here it comes to three special functions: 1. setting up and applying standards for obtaining working licenses for banks; 2. developing market infrastructure for shares and bond trading; 3. introducing and applying anti-trust laws for banks. Policies aimed at special problems of the financial sector include preventing and dealing with bank crises and asset market bubbles.

Cameron (1972:9) wrote that in no other economic sector, apart from maybe in foreign trade, has government intervened so broadly, so consistently, and with such telling effect - usually bad. Fry (1995:371) also concludes that only in a small number of countries has government intervention been benign. Namely, government engages in correcting market imperfections under assumption that it has the ability or will to do it, but market failure does not necessarily imply government success.

According to La Porta et al. (2002) there are two approaches to government involvement in financial markets. The first one is optimistic, developmental approach which is attributed to Gerschenkron (1962). His opinion was that in some countries in the 19[th] century, Russia especially, economic institutions were not developed enough for private banks to have key developmental role. Banking system could not attract enough financial funds for industrialization because of large capital shortage, and besides, the level of distrust in country was enormous. In such conditions government had to take the function of industrial banks.[1] This idea has been accepted across the world: in 1960s and in 1970s governments have nationalized existing commercial banks and founded new ones in Africa, Asia and Latin America (La Porta et al., 2002).

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[1] Gerschenkron was at that time not the only one with such attitudes about the need for government ownership of companies in strategic industrial sectors. Lewis (1950) was also in favor of government ownership over banks. According to his opinion, controlling finances would lead to development of strategic industries.

According to the second, political approach to government involvement in financial markets, government obtains control over banks and companies in order to provide employment, subsidies and other benefits to its supporters, which in return vote for a specific party, finance their campaigns or give bribes.[2] Political control over banks is the largest in countries with undeveloped financial systems and weak protection of property rights because government does not have to compete with the financial sector for resources.

In the rest of this paper it will be shown that there are a few reasons for optimism when it comes to strong government involvement in financial intermediation, but also that consequences of total government withdrawal can be detrimental. Political approach to government involvement will be explained in more detail by looking into public governance quality. Attention will be drawn to the fact that banks can have significant influence on government and its regulatory bodies, with a consequence of misallocation of resources.

3.1. Financial repression

The fact that some government interventions are justified, does not imply that every intervention is justified. The best example of this is financial repression. Policy measures which can be characterized as financial repression are the following (Montiel, 2003:215-217; Agénor, 2000:56-57):

- Controls of capital inflows and outflows. Under financial repression, domestic residents are typically not allowed to hold foreign assets, and domestic firms are not permitted to borrow abroad. The consequences are that country is characterized by financial autarky and that foreign financial intermediaries cannot compete with the domestic financial industry.

- Restrictions on entry into the formal financial sector. Under financial repression, in the domestic financial sector there is no possibility of free entry and exit, and many banks are government owned. The consequence is that domestic financial sector does not operate under competitive conditions. Banking sector is usually dominated by a few banks, the largest of which are government owned.

- High reserve and liquidity requirements on banks. Banks are required to hold high reserve ratios on which they do not earn interest. In addition, they often have to hold liquidity ratios in the form of government securities which typically yield a return much lower than would be required for banks to choose to hold them voluntarily. This can be considered as forced allocation of assets from commercial banks to the public sector. Through both mechanisms banks indirectly pay taxes and lose freedom of allocating a large part of their assets into productive loans.

- Interest rate ceilings on bank assets and liabilities which usually lead to negative real interest rates. Ceilings on interest rates imply that banks cannot compete in price and that they cannot increase deposit interest rates in order to compete with nonblank intermediaries on the informal financial market. If there are ceilings on loan interest

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[2] Even Gerschenkron (1962:20) wrote that because of incompetence and corruption of government officials during industrialization, there was a large waste of resources. Despite that, he thought that government financing of industrialization in Russia was a great success.

rates, it means that banks cannot allocate their loans on the basis of price, and are forced to engage in nonprice rationing of credit.

- Directed credit restrictions on the composition of bank asset portfolios. Policy makers can force banks to allocate funds in certain sectors or activities which, based on their opinion, should have priority. Often these credits have to be given under preferential interest rates. This measure additionally decreases, along with high reserve requirement, funds available to financial intermediaries.

- The use of bank credit ceilings as instruments of monetary control. Monetary authorities set targets for amount of overall crediting which is then distributed among individual banks.

These policies cause distortions in financial intermediation and therefore reduce efficiency of resource allocation and negatively influence growth (Montiel, 2003:223-225). In more detail:

- Restrictions on competition may impair allocative efficiency because banks in government ownership and protected banks do not have incentives to carefully select and monitor their borrowers.

- High reserve requirements mean that a larger part of household saving will be channelled into government spending. Investment undertaken by government will maybe not have high enough return in order to compensate for missed investment in the private sector.

- High price ceilings prevent financial system from allocating capital into the most productive uses. Informal market can be developed (which can be less efficient) or credit rationing can occur.

- Because of obligation of directing credit into certain sectors or activities, banks give credits to companies which maybe would not qualify for them under market conditions.

- Limitations on flow of capital decrease competition in financial sector and hence decrease incentives for lowering costs of intermediation.

- Reserve requirement can be observed as tax on banks which increases the cost of intermediation.

When it comes to government ownership of banks, which is still widespread around the world,[3] there is no evidence that it can be connected with positive results (Barth, Caprio and Levine, 2004). La Porta et al. (2002) have shown that government ownership politicizes allocation of resources and decreases its efficiency. Their main result is that larger government ownership of banks is correlated with lower growth rates and lower productivity in following periods, including poor countries. Government ownership is especially pronounced in poor countries, countries with low protection of property rights, undeveloped financial systems and large government interventionism in economy as a whole. Large share

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[3] La Porta et al. (2002) have shown on a sample of 92 countries that in 1970 in an average country 59% of assets of ten largest banks was owned by government, while in 1995 share of government ownership was 42%.

of government ownership does not have to be negative if there is long and good tradition of government ownership, which is the case in Germany, but such examples are rare.

Financial repression is usually not motivated by correcting market failures in the process of financial intermediation and therefore there is no reason to believe that it would improve its functioning from the aspect of financial market imperfections. The main motivation for financial repression is fiscal (Montiel, 2003:214); the government relies on implicit taxing of financial sector because it has difficulties in collecting taxes in conventional way.

Exemptions from the negative relationship between financial repression and economic growth are Japan and four Asian tigers. However, financial repression in these countries was different from others because it was moderate: there were no large negative real interest rates, banks were trying to decrease interest spread so that larger share of savings could go into investment and repression was carried out in conditions of financial stability (Montiel, 2003:229). Besides, government did not direct loans in consumption. Funds were allocated for investment based on amount of exports as criterion. These countries were successful because they did not exaggerate with financial repression and because it was going on in special conditions which are hard to copy somewhere else. When financial repression is carried out with goals different from removing market inefficiencies, then their net effect is damaging.

3.2. Financial liberalization and bank crises

In 1970s McKinnon (1973) and Shaw (1973) criticized financial repression because it decreases depth of financial system and efficiency of savings allocation. Their proposal was complete liberalization. The basic idea behind liberalization was that it would be followed by higher real interest rates which would increase savings and make more loans available.[4]

Financial liberalization actually represents removal of earlier mentioned restrictions on financial intermediation. After liberalization, competition and market efficiency should ensure adequate functioning of deregulated financial system. The key problem with this approach has been already described in this paper: it cannot be assumed that deregulated markets will be efficient; in totally liberalized system there is a threat of systemic misallocation of resources and sensitivity to crashes. These crashes include bank crises (solvency problems) and bank panics (liquidity problems). Evidence has shown that financial liberalization is usually followed by financial crisis. In general, there is not enough evidence that after financial liberalization efficiency of allocation of resources increases in terms that they are used in the most productive way (Caprio, 1994:2).[5]

From late 1970s to 2000 there were 112 systemic banks crises in 93 countries and 51 borderline crises in 46 countries (World Bank, 2001:75). Crises are obviously numerous, but also expensive, which is especially damaging in countries in development. Apart from influencing growth (Gorton and Winton, 2002), they have large fiscal costs - those funds could have been used for e.g. healthcare and education. Demirgüç-Kunt and Detragiache (1998) found that determinants of bank crises in countries in development from 1980 to 1994

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[4] It has been evidenced that financial liberalization can decrease liquidity constraints and hence lead to a temporary increase of consumption, not saving (Agénor, 2000:56-57); elasticity of saving to real interest rate is low or equal to zero.

[5] Loayza and Ranciere (2005) found that financial liberalization has a positive impact on economic growth in the long run, while in the short run it is characterized by financial crises and low GDP growth rates or recession.

were: low GDP growth, excessively high real interest rates, high inflation and low effectiveness of legal system. It can be concluded that bank crises are usually a consequence of general economic conditions in a country for which government is mostly responsible.

Government reacts in case of bank crisis because it does not want public to think that it will come to a financial system collapse or because it does not want that citizens suffer a loss. However, if government intervenes in the case of financial collapse, then expectations are formed that government will always bear the cost of financial crises by "saving" banks and protecting depositors. Since banks are expecting rescue, they will be less careful in giving loans, i.e. when assessing applications for loans. In other words, banks will take larger risks than they would if there was no government backup. Furthermore, as long as a single bank behaves like other banks, the probability of government rescue grows. As a prevention of bank crisis governments usually introduce safety nets like deposit insurance but it can lead to moral hazard by banks.

Barth, Caprio and Levine (1999) found negative correlation between quality of public governance and probability of bank crises. In general, it has been shown that effects of financial liberalization depend on institutional structure of the economy, that is, quality of public governance (Arestis and Demetriades, 1997). Furthermore, before liberalization macroeconomic stability and adequate prudential supervision and regulation of banks are necessary - this is usually not the case. Liberalization without appropriate regulatory framework has disappointing results which was obvious in the case of Latin American countries. Even though it could be claimed that financial liberalization should not be described in the context of government failures, this paragraph should prove otherwise.

3.3. Quality of public governance

Cameron (1972:19) wrote that if it wants to be achieved that banking system effectively contributes to formation of capital, then government has to provide minimal conditions of financial and political order and refrain from random and ad hoc interferences that increase uncertainty for long-range investment planning. If banking system is distorted by bad regulation and policy measures, it can thwart country's economic growth. It could be said that Cameron stressed the importance of public governance quality, i.e. the way in which government uses its authority in managing country's institutional environment.

Normative literature presumes existence of a benevolent dictator, but that "species" is all too rare in the real world of economic policy making (Grossman and Helpman, 2001). Recently, economists have developed a new approach to analysing policy influence on the economy, treating policy makers as agents who want to maximize their personal benefit, and not like benevolent social planners. This approach is known as "new political economy" (Pagano and Volpin, 2001:503). By applying political economy to finance it can be understood why financial regulation often has flaws and why it hinders market development instead of promoting it. In other words, it helps to understand why some countries have poorly designed financial institutions and regulation.

Most policy measures directed at financial system implicitly assume that government will strive to common good, but such attitude neglects incentives with which policy makers are faced and political structure within which they operate. For example, in World Bank publication (World Bank, 2001:130) it is stated that banks will contribute to economic growth if there is a large enough number of well motivated regulatory bodies for financial

intermediaries. However, when it comes to regulation, there is the problem of incentives: in "real" world regulators often earn less than those who they should regulate. Because of this, there is often a lack of quality staff in regulatory agencies or widespread corruption. Even if there is no corruption, every kind of monitoring is fallible; there should be agencies for monitoring monitory agencies.[6]

The main problem is the following: how can policy makers remove market inefficiencies if they are working in their own interest? Furthermore: what is the probability that good financial policy will be adopted if it is opposite to interests of policy makers currently in power? Too often personal interest of policy makers created and sustained distorted incentives in financial sectors which led to crisis or allocation of bank resources in government ownership for political or personal causes (Haggard and Lee, 1993). Since government action is necessary for financial development, the key question is when and where there is political will to carry out those policies. Who can force government to hold on to its commitments? It has been shown that the will to form a good regulatory framework is more important than the ability to regulate (Haggard and Lee, 1993). It should also be taken into account that political and institutional obstacles to financial sector development slowly change. Path dependency exists: initial laws shaped the differences between financial systems.

Even when role for government is initially justified, it can lead to rent seeking. Rent can be defined in several ways (Buchanan, 1980:4): a) part of the payment to an owner of resources over and above that which those resources could command in any alternative use; b) receipt in excess of opportunity cost; c) allocatively unnecessary payment not required to attract resources to the particular employment. Just like rent, rent seeking can be described in several ways: a) socially expensive search for wealth transfers (Tollison, 1997:506); b) process by which an individual, organization or company tries to obtain benefit by manipulating economic environment instead of trading and producing added value (Wikipedia, 2006); c) description of behavior in institutional environment where individual efforts to maximize value result in waste of social resources, rather than social surplus (Buchanan, 1980:4).

On an individual level, behavior is not different from profit seeking in market interactions. Rent seeking is rational behavior but it decreases the amount of resources available to the society. "The unintended consequences of individual value maximization shift from those that may be classified as 'good' to those that seem clearly to be 'bad', not because individuals become different moral beings and modify their actions accordingly, but because institutional structure changes. The setting within which individual choices are made is transformed. As institutions have moved away from ordered markets toward the near chaos of direct political allocation, rent-seeking has emerged as a significant social phenomenon." (Buchanan, 1980:4)

Public governance can be categorized as bad if it results with institutions which stimulate rent seeking and consumption instead of production and saving (Hall and Jones, 1999). If culture of rent seeking prevails, individuals believe that influence over political allocation is the main source of personal benefit. In order to get rich and improve their private position, individuals focus their activities on obtaining favorable government decisions. Namely, rent is received when a third party, usually the government, makes it impossible for one party to have access to otherwise available transaction possibilities, by which a nominally consensual transaction between two parties becomes an opportunity for rent collection for one party. Furthermore, if somebody gets a monopoly right, others will not patiently observe it. They will instead invest

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[6] A possible problem is that regulators often become employees of companies they used to regulate.

effort, time and other productive activities to win over policy makers' favor which would bring them personal benefit.

Buchanan (1980:12-14) identified three types of expenditures of rent seeking which can be wasteful from the aspect of the society: 1. efforts and expenditures of potential monopolists (lobbying etc.); 2. efforts of state officials in order to obtain or react to expenditures of potential monopolists (e.g. bribes); 3. distortions caused to third parties by monopolists or government as a result of rent seeking activities (efforts of others to receive subsidies or at least form an oligopoly). The main point is that those resources could have been used in a more productive way. If a company can calculate the cost of lobbying, bribing or any other way of obtaining favorable regulation from the state, than this cost can be compared to the cost necessary to obtain similar benefit within the market by investment or increased productivity. If buying favorable regulatory environment is cheaper than increasing efficiency of production, than it will lead to suboptimal allocation of resources (money spent on lobbying instead on improving production) and productivity growth slowdown.

Usually in theory the notion of rent seeking refers to rents from regulation, monopoly or tariffs. Rent seeking can be observed as a two phase game. In the first phase, agents are competing for control over the political apparatus which creates and distributes rents through legislation. In the second phase, agents are competing for rents which stem from monopoly and regulation (Tollison, 1997:519). Instead of looking at private companies as government victims, they could be observed as government's accomplices in forming institutions (laws, acts, regulations) which create rent seeking opportunities for both parties. Rents are shared between government officials and companies through government interventions and distribution of legal and regulatory advantages to some companies.

Political economy does not take regulation as given. Instead, it is trying to understand it - when and why it changes and develops, taking into account demand and supply factors. From the demand side, it is dealing with pressure of interest groups on legislators and regulators in order to promote policies for their own private interest, and not to contribute to social welfare. In some environments regulators can be a special interest group (Kroszner, 1998). Regulatory equilibrium in financial markets is influenced by technological, economics and legal shocks (Kroszner, 1998), or it can come to a crisis which changes distribution of power among existing interest groups. Traditional approach of economists to regulation is that it exists in order to correct market imperfections and hence maximize social welfare. This is the public interest theory.

Economic theory of regulation (e.g. Stigler, 1971; Peltzman, 1976; Becker, 1983), or private interest theory, is based on assumption that regulatory process is characterized by competitions of interest groups which use government's power to obtain rents at the expense of other groups. These interest groups can be so strong that they can capture regulators. For this reason, this theory is also called capture theory. Continuous existing of a dysfunctional regulatory framework can be partially explained with politicians and regulators being captured by those they should be regulating. In these cases regulatory policy works in private interest and not in interest of general public. Even if regulation seems strict, there can be loopholes in the law.

Banking regulation is an area in which political factors can have a significant role - Kroszner and Strahan (1999) have shown that the timing of interstate branch banking regulations in USA since the 1970s has been determined by relative power of interest powers which would

be influenced by reform. Deregulation happened earlier in states with a lesser number of small banks, states in which small banks were financially weaker and states with more small companies dependent on banks. In the next section more will be written about banks as an interest group.

3.4. Interest groups

Hellman, Jones and Kaufmann (2003) focused in their research on two concepts: state capture and state influence. State capture refers to payments by private companies to state officials in order to have impact on the rules of the game (institutions), and state influence has the same goal but without paying to state officials. This kind of corruption cannot be considered as extortion since it is based on voluntary companies' decisions. Authors conducted their research on a sample of 22 transition countries (Eastern Europe and former Soviet Union) in order to stress that after only a decade of transition fear of government as leviathan has been replaced with a new reason to worry: powerful oligarchs who manipulate politicians and shape institutions in order to advance and protect their empires at the expense of social interests (Hellman, Jones and Kaufmann, 2003:752).

The authors have shown that influential companies are usually large, state owned, privatized and have close formal and informal ties with the state. Their influence is legacy of the past. On the other hand, companies which capture the state are newly founded private companies with weaker government ties. The authors have found out that both groups of companies grew faster than other companies and that social costs of capture and influence for other companies (especially small) have been significant. There are two groups of countries: countries with high state capture and countries with low state capture. In the first group of countries regulatory framework is distorted for the benefit of a few powerful companies. In the second group of countries companies maybe want to capture the state, but there are limitations which prevent government officials from abuse of power.

Participation of interest groups in policy making is not specific for transition countries only; it can be generally stated that politics is a battle between numerous competing interests. Unfortunately, Hellman, Jones and Kaufmann (2003) did not include banks in their survey, but banks can be a strong interest group. Interest group can be formed more easily if the number of potential members is small (Mueller, 2003:473) and banking sector is characterized by monopolistic competition, i.e. a small number of participants.

Animosity is often felt towards banks; it is believed that banks control everything, that they are above everything and that they are a symbol of power of the rich. The following quotes are in favour of this (World Newsstand, 2006):

- "History records that the money changers have used every form of abuse, intrigue, deceit, and violent means possible to maintain their control over governments by controlling money and its issuance." (James Madison)

- "What is the crime of robbing a bank compared with the crime of founding one." (Bertolt Brecht)

- "I believe that banking institutions are more dangerous to our liberties than standing armies." (Thomas Jefferson)

- "The bank is something more than men, I tell you. It's the monster. Men made it, but they can't control it." (John Steinbeck)

- "Give me the power to issue a nation's money, then I do not care who makes the law." (Anselm Rothschild)

James (2002:118) wrote for banks that they do not operate in some neutral, antiseptic environment; they are a part of a larger financial and social system in which government plays the leading role, and government is susceptible to many economics and political influences. When Willie Sutton, a famous bank robber, was asked why he robbed banks, he replied: Because that's where the money is. Connection between politics and special interests can be very close if for nothing else, then because banks are the ones in which the money is.

Bankers have always enjoyed close relationships with political power, most often as advisors to politicians (Cassis, 2002) because they had good technical knowledge about finance. That relationship was enhanced with the fact that government officials often had leading manager positions in banks. Banks were through influence on politics interested in defending their own interests (e.g. stopping competitors from entering the market) as well as in keeping independence from government interference. Naturally, influence of bankers on politicians has not everywhere and always been the same. For example, in Great Britain at the end of the 19[th] century bankers enjoyed better social status from bankers in Germany, i.e. they were better integrated in higher classes. In general, British bankers have been very successful in defending their own interests until 1946 when Bank of England was nationalized, but even then government authorities over banking stayed limited. Interests of the financial community were successfully presented as interests of the whole society. Cassis (2002) has shown that banks have throughout history quickly learned how to avoid the main purpose of different types of regulation. Influence of bankers on government officials has depended on how successful they were compared to other interest groups.

David Landes (1958) gives many historical examples of various types of close relationship between rulers and bankers. For banking in Europe in the 18[th] century he wrote: "…one may be sure that much influence with governments was bought – tactfully, through gratuities and accommodations, and crudely, by bribes". According to his findings, corruption was definitely a tool of banking policy.

Along with bribes, nowadays influence can be made through lobbying and financing of political campaigns, which are also forms of rent seeking (Mueller, 2003:498). It is interesting that in the USA in 1999 financial and real estate industry had the largest share in federal lobbying expenditures (Grossman and Helpman, 2001). Lobbying is a one direction transfer of information from interest group to government (Mueller, 2003:494). The way in which lobbyists function is that they help legislators in forming new laws. Their advantage is that they have access to information; legislators cannot master all technical and very complex questions in all fields and this is why they need resources and expertise of lobbyists. Another way of influence is campaign financing. Even if it is regulated by strict laws (and usually it is not, except in highly developed countries), interest groups find a way to circumvent them. With contributions interest groups buy influence: a loophole can be created, amendment not put forward etc. All this affects composition of laws, which then influences policy outcomes: "the link between a contribution and a legislator's action need not be made explicit, but nonetheless, influence is there: candidates know where their money is coming from" (Grossman and Helpman, 2001:12-13).

Often corruption and lobbying are thought to be very similar. However, lobbying is usually focused on changing existing laws, and corruption on avoiding enforcement of existing laws and regulations. It is interesting to mention that technically bribe is not a rent seeking cost. Bribe is a transfer and as such represents a method of influence on government's behaviour and that does not include explicit costs of rent seeking (consumption of expensive resources in order to get a transfer). Hiring a lawyer or lobbying to get a favourable law is rent seeking; bribing a legislator for the same purpose is not (Tollison, 1997:508).

Even though literature on lobbying is growing, there is almost no empirical research. Empirical papers are usually limited to developed countries and concentrate on characteristics of companies as determinants of lobbying (within one country) or differences in GDP in cross-country comparisons. Campos and Giovannoni (2006) conducted their research on a sample of around 4000 companies in 25 transition countries using BEEPS (World Bank, 1999) data for year 1999. By using tobit econometric analysis they have found out that lobbying and corruption work as substitutes and that lobbying is a more efficient instrument for influencing policy makers in rule than corruption, even in poor, less developed transition countries. This especially refers to highly positioned government officials. The notion "substitutes" in this context means that lobbying is an important alternative instrument to corruption in influencing policy makers in transition countries.

Their analysis also suggests that there is a larger probability for lobbying to occur in countries which have parliamentary systems (more players with veto rights) and high level of political stability. In addition, size of companies has significant influence on whether they will become lobby members, and probability of membership increases with the share of foreign ownership in a company as well as with the size of GDP (e.g. in Hungary and in Slovenia 77% and 67% companies stated they are lobby members respectively). Furthermore, in countries in which corruption is decreasing, the influence of lobbying is growing.

Nature of state interventionism in the field of finance depends on the type of relationship between government and financial elite. Financial elite can be connected with political elite only, or it can together with political and industrial elite form a single elite as it was the case in France in the last couple of decades (Cassis, 2002:13). The question is if bankers are a special interest group or connected with somebody. Morck et al. (2005) think that powerful families are those who control both banks and the political system.

According to Morck et al. (2005) business elites (majority owners, often powerful families) manage to transform their business power in political influence. They use this influence to, with the help of policy makers, create policies which would protect them from competition and enable subsidies for their business operations. In countries in which corporate ownership is highly concentrated, probability of influencing policy measures in a way which would stimulate rent seeking and stifle growth is large. Growth can also be hindered through direct influence of business elites on other companies and banks. Groups of influential companies often own banks as members of these groups. Caprio, Laeven and Levine (2003) analysed 10 largest banks in each of the forty-four countries in the sample and discovered that half of shareholders with controlling package of banks' shares are rich families.

It is important to point out that in cases when politicians followed interests of bankers, it was not necessary at the expense of others - e.g. financial stability is in interest of others, too. Furthermore, relative power of interest groups changes over time. Question that should be

asked is why in some time periods it was considered that influence of bankers on government is large, i.e. that government was captured by bankers. It is not impossible that government officials in some cases wanted to blame financial community for their own mistakes.

It is often assumed that influence of foreign banks is not as pronounced as influence of domestic banks can be. However, Landes (1958:65) gives as an example speech of Sir William Clay, which he held in 1864 in front of shareholders of Ottoman Bank (bank which came to existence by joining a couple of banks from the West and from the East). This is how he explained why it was worthwhile to build relations with Turkish banks: "…there were many financial operations connected with the government, others with municipal bodies, and other again with individuals, in which local experience, knowledge, and connections of the native bankers and capitalists of Constantinople made them the most fitting instruments". The "problem" with strong presence of foreign banks is that they can decrease control of government over the economy.

The ability of interest groups to achieve their goals depends on the interest of politicians and structure of state institutions (Haggard and Lee, 1993). In countries in which banks are faced with regulation full of flaws, corruption and frequent preferential measures, they are in better position to get central bank policies which suit them better (Haggard and Lee, 1993). The scope of influence of sector interests over politicians depends on political rules within which they operate, and maybe even on social norms.

4. CONCLUDING REMARKS

Government has powers which private sector does not, but it is susceptible to limitations which make it less efficient than private sector. On one hand, government should correct market failures, but on the other hand it is under influence of interest groups and election results. Government officials who will, if not prevented by law, try to maximize their personal wealth and not social welfare are on one side. They are open to cooperation with all interest groups if it will benefit them. On the other side are the bankers, fundamentally pragmatic interest group (also ready for cooperation with whoever it takes) which will try to maximize their own profit independent from influence on aggregate economic activity. It also possible that there are other interest groups which control both government and banks.

Government has the power to regulate the banking sector (which it does very intensively), but banks have the power to capture regulators. Along with all this, one should have in mind that the relationship between government and banks is not static: regulation causes market reaction which usually requires a new reply from the government. Policy makers are usually aware that their country needs good institutions, but they do not develop because with them interest groups would be at loss (Rajan and Zingales, 2003). Furthermore, the most basic requirement which government should provide is the rule of law (good protection of property rights, accounting standards and efficient judiciary), but this is exactly where the government most often fails (Bernstein, 2004). It is questionable what is more harmful: market or government failures. Laissez faire is not a good solution but strong state intervention has been successful only in East Asia. In other countries it resulted with corruption and other unwanted consequences.

These complexities in the government-bank relationship should be taken into account when doing empirical research on financial intermediation by banks and economic growth. Without it, research is greatly simplified and may lead to misleading results on the importance of banks for economic growth.

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APPENDIX: OVERVIEW OF SELECTED INDICATORS FOR TRANSITION COUNTRIES

Country	Private sector share of GDP – mid 2006 (%)[1]	Corruption Perceptions Index (CPI)[2]	Member of a trade association or a lobby group (%)[3]	Capture economy index and capture classification[4]	Domestic credit to private sector[5]	Net interest margin (NIM)[6]	Gross wages in financial intermediation/ total gross wages[7]
Albania	75	2.6	28.4	16 – low	10.3	5.2	-
Armenia	75	2.9	19.2	7 – low	8.0	6.2	-
Azerbaijan	60	-	5.8	41 – high	9.5	8.5	-
Belarus	25	2.1	12.9	8 – low	16.2	4.9	-
Bosnia and Herzegovina	55	2.9	21.3	-	22.6	7.3	-
Bulgaria	75	4.0	26.2	28 – high	44.5	5.1	2.4
Croatia	60	3.4	55.1	27 – high	55.6	4.0	1.6
Czech Republic	80	4.8	19.5	11 – low	37.6	3.0	2.0
Estonia	80	6.7	35.6	10 – low	60.0	3.0	-
FYR Macedonia	65	2.7	20.6	-	18.6	5.7	2.1
Georgia	70	2.8	9.3	24 – high	9.5	8.8	-
Hungary	80	5.2	76.9	7 – low	51.7	3.4	2.2
Kazakhstan	65	2.6	15.6	12 – low	26.7	4.2	-
Kyrgyz Republic	75	2.2	7.6	29 – high	8.0	3.0	-
Latvia	70	4.7	48.8	30 – high	60.7	3.0	-
Lithuania	75	4.8	8.0	11 – low	34.0	2.2	-
Moldova	65	3.2	15.1	37 – high	21.2	6.4	-
Mongolia	70	2.8	-	-	-	-	-
Poland	75	3.7	25.2	12 – low	27.8	2.0	1.8
Romania	70	3.1	16.8	21 – high	11.3	4.0	2.2
Russia	65	2.5	16.3	32 – high	25.7	6.1	2.6
Serbia	55	3.0	13.8		-	7.8	2.2
Slovak Republic	80	4.7	15.2	24 – high	36.2	2.5	2.0
Slovenia	65	6.4	66.4	7 – low	53.8	2.8	1.5
Tajikistan	55	2.2	-	-	17.1	-	-
Turkmenistan	25	2.2	-	-	1.4	-	-
Ukraine	65	2.8	15.4	32 – high	31.2	4.4	1.9
Uzbekistan	45	2.1	21.4	6 – low	20.4	9.6	-

[1] The share includes income generated from the formal activities of registered private companies as well as informal activities where reliable information is available. Source: EBRD (2006).

[2] CPI score relates to perceptions of the degree of corruption as seen by business people and country analysts, and ranges between 10 (highly clean) and 0 (highly corrupt). This score is for year 2006. Source: Transparency International (2007).

[3] The data are for year 1999. Source: World Bank (1999).

[4] Percentage of firms affected by capture. State capture is defined as the efforts of firms to shape the formation of the basic rules of the game (i.e. laws, rules, decrees and regulations) through illicit and non-transparent private payments to public officials. In the bargain between politicians and firms the politician uses political power to provide rents to firms in return for private economic gains, which further his political or economic objectives. Data are from year 1999. Source: Hellman et al. (2003).

[5] In percent of GDP for year 2005. Source: EBRD (2006).

[6] Net interest margin is accounting value of bank's net interest revenue as a share of its interest-bearing (total earning) assets. Data are for year 2005 except of Slovenia and Kyrgyz Republic (data are for 2004). Source: World Bank (2007).

[7] This indicator shows how many times monthly gross wages in financial intermediation are larger than total monthly gross wages. Data are for year 2005. Source: Author's calculations based on WIIW (2006).

For the majority of transition countries, government involvement is still larger than in highly developed countries. This need not be a problem per se, but transition countries are characterized by widespread corruption, weak legal framework, and most of them have high state capture, sometimes accompanied by strong lobby groups. Problems occur in their banking systems as well; large majority of transition countries went through a bank crisis. Since then banks have improved their performance and although the share of domestic credit to private sector is growing, it is still smaller than in EU-15 countries where average is around 80%. Furthermore, the cost of financial intermediation (net interest margin as a proxy) by banks is relatively large compared to EU-15 countries where NIM is on average 2%. According to these two indicators, financial intermediation by banks in transition economies is relatively inefficient compared to more developed EU countries. At the same time, gross monthly wages in the financial intermediation sector are approximately two times larger than total gross monthly wages in transition countries. Taking all this into account, it would be interesting to investigate how the relationship between banks and government influences the impact of banks on economic growth in transition countries because of possible rent-sharing between government and banks.

SUPERVISION AND MANAGEMENT OF HIGHER EDUCATION INSTITUTIONS

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1. INTRODUCTION

Higher education represents an activity of a special interest for the Republic of Croatia. Government's investment in the higher education, functionally speaking, can be seen as a highly productive consumption because of its direct contribution to the economic growth of the country. Croatia, as a county with the status of the candidate for the joining to the EU, among other areas of adjustment of its laws, is obligated to adjust its higher education to the European standards. One of the fundamental questions, which need to be answered, is the question of assurance of the quality of the higher education. In order to assure the quality of the higher education, it is necessary to undertake the evaluation and the assessment of the higher education institution. Quality decisions are an important precondition in the quality assurance of the higher education institution. Adequate information background is necessary for the decision making process of the higher education institutions. A significant amount of such information is made in the accounting department and it is written in the financial reports. General purpose financial reports are an adequate, but not sufficient background for the performance analysis of the higher education institutions in the Republic of Croatia. It is necessary to define a significant set of performance indicators, alongside with the accounting information in the form of a basic financial report, to make a quality decision in the higher education institutions. Results measurement based on the performance indicators is the only reliable way of distinction between the success and failure. Performance indicators measurement would allow the evaluation of the economy, efficiency and effectiveness of the budget users in the higher education concerning the procedure of supervision and auditing. Performance indicators are significant for successful management in the higher education because they provide quality information useful for the evaluation of the performance in the

fields of costs, efficiency and achievements. Experience shows that the thing that can be measured, can also be done. It is necessary to say that all of the mentioned is to be seen in the spirit of the growth of the demands for the satisfaction of the public needs with limited resources which implicates the imperative of economical and rational monitoring and spending of the budget funds.

2. CHARACTERISTICS OF THE HIGHER EDUCATION IN THE REPUBLIC OF CROATIA

2.1. Higher education in the Republic of Croatia according to the *Scientific activity and higher education bill*

Scientific activity and higher education bill[1] regulates the systems of scientific activity and higher education in the Republic of Croatia.

From a standpoint of a budget user, in the budget system, science occurs as a sub-function in the function of education, and organizationally as a whole under the jurisdiction of the Ministry of science, education and sports. Budget users, under the jurisdiction of the Ministry of science, education and sports are:

- Public science and research institutes as the bearers of the scientific and research programs determined by the *National science council*,

- Public colleges: universities (with their faculties), polytechnics and higher schools founded by the law (public universities), respectively, by the Decree of the Government of the Republic of Croatia (public polytechnics and higher schools for the performance of the public service in the borders of the higher education and science and research activities),

- Institutions whose activities assure the integrity and necessary standard for the higher education system.

Colleges can be public and private.

Private universities, polytechnics and higher school are founded by the Decree of the founder in a way prescribed by the laws and regulations concerning the founding of institutions.

Public colleges perform their activities as a public service. If the founder of the college is the Republic of Croatia, respectively, when the college in majority is owned by the state, it is classified as a budget user. The decision of the *National higher education council*, whether according to the set strategy and program, this institution is necessary or not, is very important for the foundation of the institution of the higher education.

Croatia, as a candidate for the joining to the EU, among other areas of adjustment of its laws with the Acquis Communautaire, is obligated to adjust its higher education to the European

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[1] Narodne novine (2003) Zakon o znanstvenoj djelatnosti i visokom obrazovanju**,**
http://www.nn.hr/clanci/sluzbeno/2003/1742.htm [Accessed 15.5.2006]

standards with the goal of harmonization of the European university space and functional affiliation of European higher education and science and research institutions. It is in the best interest of every country, and especially those intending to join the EU, to investigate the existing standards and begin to implement those standards, so that their higher education institutions can be incorporated in the European cooperation and exchange programs as soon as possible.

The Bologna process is the name for the reform of the higher education in Europe whose main goal is the promotion of the teachers and students mobility with the foundation of, so called, *European Higher Education Area* till the year 2010. The name of the *Bologna process* comes from the name of the *Bologna declaration* signed on 19[th] of June, 1999. by the higher education ministers from 29 of European countries. The formal name of the *Bologna declaration* is *European Higher Education Area.*

The Republic of Croatia joined the *Bologna process* in the May of 2001. with the signing of the, so called, *Bologna declaration*. By that act, the Republic of Croatia decided to adjust its science and higher education system in order to imbed in to the *European Higher Education Area* (also known by the acronym EHEA).

The implementation of the *Bologna process* in Croatia went through a proposing and harmonizing phase of the study programs according to the *Bologna process* in the academic year 2004. /2005. (The system of two main cycles of education has been accepted – undergraduate and graduate, European system of points has been implemented (ECTS)) and Ministry of science, education and sports, after an evaluation of the mentioned, done by the *National higher education council*, issued a permission. Enrolment of the first year students, in the academic year 2005. /06. introduced the first generation of students studying according to the *Bologna process* programs.

2.2. Financing the higher education in the Republic of Croatia

Government's investment in the higher education, functionally speaking, can be seen as a highly productive consumption because of its direct contribution to the economic growth of the country. The phenomenon can be reasoned through the fundamental goal and purpose, as well as the responsibility, of the higher education institutions for the transmission of the advanced knowledge and abilities to the individuals, who can implement that knowledge and those abilities in the praxis, and in that a way enhance the constant growth and development of the country. Besides the aforementioned role, the role of the scientific institutions in the creating new technical and scientific knowledge through research and advanced teachings to the transfer and implementation of the newest global accomplishments in the domestic economy is also very significant. In accordance to the already mentioned reasons of the state, independent of the degree of development, they insist on the, as large as possible, investments to the function of education and, respectively, science.

Colleges, institutes and other scientific institutions are funded by:

- *Founders funds,*

- *State budget of the Republic of Croatia,*

- *Budgets of the counties, towns and municipalities,*

- *National foundation for science, higher education and technological development of the Republic of Croatia,*

- *Institutions own income made on the market through the mean of school fees, research, artistic and professional projects, elaborates, expertise, publishing and other activities,*

- *University and other foundations, earned profit made by commerce associations and other legal persons from the article 66. of this Bill,*

- *Direct investments made by the individuals, commercial associations and other legal persons,*

- *Donations and*

- *Other sources.[2]*

The most important source for the financing of the higher education budget users are the budget funds. The criteria for the allocation of the budget funds for the scientific activities and higher education is determined by the *National science council* and the *National higher education council* based on the proposition made by the *Scientific activities and higher education financing board*.

The funds for the work of the public colleges are assured by the state budget according to the determined capacities of an individual college, costs of an individual study and based on the evaluation of the quality of the individual college. The funds are assured by the state budget and are allocated through the Ministry of science, education and sports. Public colleges can employ a bigger number of employees than allowed, but they need to assure the funds necessary for the payments and other compensations for the employees.

2.3. Financial reports of the higher education budget users

Financial reports are an ending phase of the accounting information processing and they represent the carriers of the accounting information. It is necessary to have adequate information basis for the decision making process in the business of the budget users. Significant number of such information is made by the accounting department and it is written in the financial reports. The basic goal of the accounting department is gathering and processing of financial information and presentation of such information to the interested users.

Basic financial reports are the most significant source of information for the communication with the external users. These reports *contain systematically shown standard information, sometimes adequately filled with notes whose purpose is to clarify individual positions presented by the basic financial reports.[3]* Financial reports contain most, but not all of the

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[2] Narodne novine (2003) Zakon o znanstvenoj djelatnosti i visokom obrazovanju, http://www.nn.hr/clanci/sluzbeno/2003/1742.htm [Accessed 15.5.2006].
[3] Vašiček, V. (1997): Računovodstvene informacije kao podrška izvršavanju ciljeva proračuna: doktorska disertacija, Zagreb, Ekonomski fakultet, str.146.

information that the users sometimes require for the making of the decision. The users then have to use other information sources.

Croatian budget accounting made a division of basic financial reports for the budget and budget users, and they are[4]:

- Balance sheet,

- Income and outcome, receipt and costs report,

- Money transactions report,

- Report of the changes of the value and volume of the assets and commitments,

- Notes with the financial reports.

All of the mentioned financial reports are connected and directed to each other. Balance sheet is static and shows the state in a defined moment, while the Income and outcome report points to the changes of economical categories in a defined period, thus has a dynamic character. If they are seen together, concerning their mutual influence, they are showing the *health* of the budget user and the understanding of that state allows the possibility of rational and adequate business decisions.

Balance sheet has to answer the question concerning the financial strength of the budget user, liquidity, possibility of paying the short term commitments and the placement of the user in respect to the other budget users of the similar activity. According to the mentioned, balance sheet is the base for the analysis of the financial state, determination of the weakness and flaws of the present business activities and also, foreseeing the future business activities.

The performance of the business can be defined as a performance of the fulfillment of the goals for the budget user's business activities. Since the goals can be different, the performance of the business activities depends of the set goals, respectively, of the set criteria. The report that follows the success of the budget business activities and budget user's business activities is the *Income and outcome, receipt and costs report*. It represents the concise overview of the transactions made in the budget, in respect, by the budget user during a certain period of time.

3. PERFORMANCE INDICATORS IN THE HIGHER EDUCATION

3.1. Public sector performance indicators

The goal of each system is the survival, and it is possible only through the development. Business and development management is the necessary assumption for the assurance of the conditions which make possible the development of the company on the market. Information necessary for the management is provided by the company's business analysis and it

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[4] Narodne novine (2003) Pravilnik o financijskom izvještavanju u proračunskom računovodstvu, http://www.nn.hr/clanci/sluzbeno/2005/0471.htm [Accessed 15.5.2006]

comprehends all the important data and information (qualities and quantities), not just financial. Business analysis anticipates to the planning process as a part of management.

Financial analysis is a detailed inspection of the financial and economical state and results of a certain accounting spanning unit based on its accounting reports.[5]

Financial ratios are the most significant bearer of the information necessary for the management and development of the company. When calculating financial ratios, one economic value is put in a relation with another, where there can be differentiation between several sets of financial ratios[6]:

- *Liquidity ratios – measuring the ability of the company to pay its short-term commitments,*

- *Leverage ratios – measuring the amount of company's financial resources acquired from external sources ,*

- *Activity ratios – measuring the efficacy of the company in respect to the spending of company's own assets,*

- *Economy ratios – measuring the ratio of income and outcome, in respect, showing the amount of income acquired on each of the outcome units,*

- *Profitability ratios – measuring the return of invested equities and*

- *Investment ratios – measuring the success of general stocks investments.*

Public sector is a *part of economic and administrative life involved in the delivery of goods and services for the public administration, local or regional government[7].* Therefore, public sector is non-profit oriented; it serves for the satisfaction of the public needs of the population of the certain country.

The budget is a basic instrument for the general and common public expenditure financing in a certain country. Budget policies, respectively, defined measures concerning the usage of public income, try to assure efficient usage of the public goods for their population, meanwhile trying to satisfy the public needs, meaning relatively fair and acceptable allocation of the funds made through out the means of the tax politics and transfer of the funds to the socially most endangered categories of the population, as well as the assurance of sufficient employment rate, stabile prices and economic growth rates.

It is important for the public sector services users and tax payers to be satisfied with the quality and performance of the public sector, which implicates the necessity of the public sector performance evaluation in the area of service providing.

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[5] Tepšić, R.; Turk, I.; Petrović, M. (1984): Rječnik računovodstva i financija, Zagreb, Informator, str.54.
[6] Žager, K.; Žager, L. (1996): Računovodstveni standardi, financijski izvještaji i revizija, Zagreb, Inženjerski biro, str.245.
[7] Public sector. http://en.wikipedia.org/wiki/Public_sector [Accessed 15.5.2006]

The following questions need to be answered in order to evaluate the public sector[8]:

- *Are the services user-oriented?*

- *Are the units of public sector designed to provide better services in the future?*

- *Is the management successful?*

- *Are the resources used in a way to provide best value for money?*

Aforementioned facts implicate that the business analysis methods, used in profit oriented companies, are not applicable to the public sector. It is necessary to define methods of analysis adjusted to the definition and structure of the public sector in order to evaluate the quality and performance of the public sector. Most of the countries, with the goal of evaluation of the quality and performance of the public sector, define **performance indicators.**

Basically, performance indicators are defined as[9] *indexes which measure and evaluate information about the functionality and quality of the service providers and public sector itself.*

Measuring the results through out the mean of performance indicators is the only reliable way of differentiation of the success and failure. If a successful result cannot be defined, institutions cannot reward it, but also, they cannot learn from failure. Performance indicators are useful for the external, but also for the internal users.

The public sector of the Republic of Croatia has no official legal paper to obligate the institutions to report performance indicators. The performance indicators, as an analytical mean of the business analysis for the public sector, officially do not exist in the Republic of Croatia. Therefore, considering the aforementioned facts, their composition is necessary and essential.

3.1. Performance indicators in the higher education in Australia, Canada and Great Britain

Australia is one of the countries with highly developed public service performance indicators system. The framework for efficient public sector management is called *Outcome Based Management* (OBM).

Performance indicators provide information concerning the common characteristics of the higher education institutions, as well as the information concerning their discrepancies. Furthermore, they discover numerous possibilities for student's activities and they assess the efficiency of the institutions in numerous areas significant for the purposes of the higher education institutions system. Other indicators, especially the ones concerning financial efficiency of the institutions, measure available sources.

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[8] CIPFA (2006) The Joint Review Process.
http://www.cipfa.org.uk/panels/social_services/show.cfm?news_id=9213 [Accessed 15.5.2006]
[9] Rowe, K. (2004): Analyzing and Reporting Performance Indicator Data: „Caress" the data and user beware!**,**
http://www.acer.edu.au/research/programs/documents/Rowe-IIR_Conf_2004_Paper.pdf [Accessed 15.5.2006]

Higher education in Australia demands calculation and reporting of the following performance indicators, classified in four groups:

- **Student indicators,**

- **Staff indicators,**

- **Finance indicators and**

- **Research indicators.**[10]

The Government of the Great Britain has been preoccupied by the measurement and the advancement of performance in the public sector for more than half a century. But, the concern has become greater during the last two decades, since Great Britain has faced the recession, greater demands for quality and better public services, as well as the resistance of the population to the bigger taxes. At the same time, with the mentioned pressures came the demands for greater reliability of the public sector.

Higher Education Statistics Agency (*HESA*) publishes every year:

- **Access indicators,**

- **Non-completion rates,**

- **Efficiency indicators,**

- **Employment indicators,**

- **Research outputs**.

The Government of Canada has a significant influence on the life and living standard of the population of the country. The Government's politics, programs and services support economic contest of the Canadians, their social and cultural infrastructure, influences the protection of the environment, welfare of the community and citizens. The Government of Canada is the biggest organization in the country, with the largest costs, with the biggest number of programs and services, organizations, transactions. It manages the largest labor force in the county and uses more commodities and services than any other organization in the country. Therefore, the public sector management is extremely important.

Good management implies responsibility and transparency. It is important to build integral, responsible Government which will manage information with the strength of a lever and manage assets in an innovative way, while providing public services.

Canadian state prescribed several sets of performance indicators for the higher education which measure the degree in which the institutions in the system satisfy the following goals - sufficient assets, accessibility, high quality research, responsibility, reliability and creativity.

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[10] Department of treasury and Finance, Government of Western Australia (2004) Characteristics and Performance Indicators of Higher Education Institutions, http://www.dest.gov.au/archive/highered/statistics/characteristics/contents.htm [Accessed 15.5.2006]

The indicators are following[11]:

- **Program results based indicators (student indicators),**

- **Financial performance measurement indicators,**

- **Research activity based indicators.**

3.1. Creating the performance indicators in Croatian higher education

The role of the accounting department is to collect the data concerning functional operating of the budget user; therefore, it provides the information used for foundation of the business improvement. Financial reports represent a lunge of the accounting department to the surroundings and their goal is to provide quality information necessary to make different decisions. Financial reports of the budget users are useful source of information and data considering the spending of the public money and they are the foundation of the communication between the state and the people, but they also represent a decision making foundation with their role as information sources concerning events and business activities which incurred during the year. The data contained in the financial reports provides different information useful to the different users meaning different purpose of their usage.

Public needs are getting bigger, and assets are reducing which implicates greater need for economical and rational monitoring and spending of the state budget funds. Therefore, the focus of the attention is directed to the monitoring and evidencing business activities and changes in the total, not just financial state assets. Aforementioned way of evidencing business activities was also implied by the initiated process of globalization demanding application of international norms and standards of conduct in every sector of human labor and activity.

The analysis of the Croatian higher education, as well as the analysis of its financing and financial reporting, with the emphasis on the user's need for quality information necessary for successful management, addresses to the conclusion that the financial reports are adequate, but not sufficient ground for decision making process concerning the performance of the higher education institutions. Setting the set of performance indicators, with the existing financial reports, would provide adequate background for the decision making process in the Croatian higher education system.

Considering the experiences of Australia, Great Britain and Canada, which are considered to be the initiators of the performance indicators results measurement, as the only reliable way of distinction of success and failure, and considering the characteristics of the Croatian higher education, measurement and reporting of the performance of the higher education, through out the mean of four sets of indicators, is proposed:

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[11] Beaton, J. (1999) Performance Indicators and Quality Management in the University: A Critical Review : Section I: The Theory and History of Performance Indicators and University Management, http://www.fedcan.ca/english/fromold/perf-ind-literaturereviews-beaton-sect1.cfm [Accessed 15.5.2006]

Student indicators:

- Number of enrolled students,

- Number of graduated students,

- Ratio of the number of enrolled and graduated students,

- Average time necessary for the completion of the studies regarding the duration of the studies,

- Students appearing in the higher education system next year,

- Employment indicator.

Financial indicators:

- Business costs per student,

- Total costs per student,

- Capital costs per individual student,

- Share of capital outcome in total outcome,

- Share of school fees in total income,

- Share of state budget funds in total income,

- Total business economy,

- Business economy,

- Leverage coefficient,

- Outcome as interest as a share of total outcome,

- Expenditure for payment of the capital of received credits as a share of total incomes and outcomes,

- Employees expense as a share of total outcome,

- Material expense as a share of total outcome.

Performance indicators regarding employees:

- Share of domestic teaching staff in total teaching staff,

- Percentage of teaching staff regarding total number of employees,

- Percentage of non-teaching staff regarding total number of employees,

- Number of students per employed teacher,

- Share of teaching staff according vocations regarding total number of employees,

- Share of female staff in total teaching staff,

- Age structure of employed teaching staff.

Research indicators:

- Share of income made by research activities regarding total income,

- Research income per employed member of the teaching staff,

- Number of published scientific, professional papers and projects per employed member of the teaching staff.

4. THE SIGNIFICANCE OF ACCOUNTING INFORMATION AND INDICATORS IN SUPERVISION AND MANAGEMENT OF HIGHER EDUCATION

4.1. Accounting information and performance indicators as a foundation for supervision of higher education institutions

According to the growing needs for satisfaction of public needs and more limited resources, a greater need for economical and rational monitoring and spending of state budget is imposing. Quality information is necessary for the efficient control of disposal of public goods. Among other, information evaluating activities of the system itself are necessary and they are acquired through monitoring of the processes in the system, regarding monitoring of the implementation of estimated results and goals. Each system must have a built-in control mechanism with the sole purpose of evaluating activities of the system in given conditions and provide information regarding estimated goals.

Control mechanisms, established in the functioning of the state budget and also in higher education, are internal supervision and state auditing. They need to be seen as a unique control mechanism with the same object of supervision, only with different methods, approach and procedures of control.

The task of internal auditing, and also of the budget control and state auditing, is to examine the accuracy of state budget spending, are the assets spent for the purpose they were assigned for and is the consumption in accordance with the law. It is their task to judge whether the state budget is spent legally, with purpose and at the right time. To make that possible, procedures of internal supervision and state auditing examine financial reports and financial transactions for a certain business year.

Budget supervision is a procedure of supervision of the legality, purpose and in timely manner of the usage of budget funds, and it is implemented through out the mean of examination of the accounting, financial and other business documents for the current fiscal year. If the budget supervision determines that the budget funds were not used in accordance with the law or budget, it is necessary to return the assets to the budget, and in the case of determined activities with the attributes of criminal act, the initiation of a criminal procedure is possible.

State auditing, as a professional and independent organization, represents a form of external financial supervision over the execution of budget. Procedures of audit examine documents, papers, internal audit reports, accounting and financial procedures and other notes in order to determine whether financial reports show true state and business results and are they in accordance with accepted accounting principles and accounting standards.

Aforementioned shows the significance of accounting information in the successful implementation of the supervision of budget and budget users, and therefore, Croatian higher education as well. Accounting information, represented through out the mean of financial transactions and general purpose financial reports, are a foundation of examination of legal and designated business and public funds spending made by higher education institutions, in the procedures of internal and external supervision.

Considering there is no prescribed commitment for calculation and reporting of the performance indicators in the public sector in the Republic of Croatia, including higher education, there is no prescribed procedure and commitment of supervision and audit of the aforementioned indicators. **Since the goal of supervision is to examine the accuracy of the budget funds spending, are the assets spent for the purpose they were assigned for and is the consumption in accordance with the law, at the same time with the implementation of business auditing through out the examination of financial reports for a certain year, success auditing would be necessary. Success auditing would evaluate economy, efficiency and effectiveness (so called 3 E) of the usage of human, financial and other resources. One of the criteria for the implementation of this auditing could be performance indicators.** Performance indicators are indexes which measure and evaluate information regarding the functionality and quality of the service providers and public sector itself. Supervising indicators includes controlling whether the indicators are relevant and adequate regarding their purpose.

Success audit would include control:

- Did the higher education institution define the results and outputs in such a manner that they reflect wanted results of the state authorities;

- Do the defined indicators bring successful ratio of outputs with used inputs;

- Are the indicators harmonized with their original purpose and are they capacious enough to provide information regarding most of the business functions of the institution and

- Do these indicators allow assessment of the success regarding set goals, prior success and success of the similar institutions?

The state authorities in the Republic of Croatia need to define desired performance indicators, as well as desired results and outputs they want to measure, in order to implement successful supervision of the higher education.

4.2. The significance of accounting information and indicators for successful management in the system of higher education institutions

Management of a subject is a process of conscious directing of the subject towards some goals which are in the function of common cause, and they are development, in respect, survival under the market conditions. At the same time, it is necessary to define long-term goals, as well as short-term tasks and determine desired results which make long-term goals possible.

While making any kind of decision, the person deciding is facing different limitations of deciding. Most important of the limitations are the insufficient and limited resources, information and time in disposal for the purpose of deciding.

Adequate information background is necessary for the making of the efficient decision in the business of all subjects, including the institutions of higher education. Information comes from two sources: external information comes from surroundings and internal information is produced in the information systems inside the institution itself. Significant number of necessary information is made in the accounting department and it is written in the financial reports.

Accounting information presented to the users in the standard shape and contents are called financial reports. Basic financial reports are the most important source of the information for the communication with the external users. These reports contain systematically presented standard information sometimes acceptably filled with the notes whose purpose is to clarify individuals states presented in the financial reports. Financial reports contain most of, but not all of the, information sometimes acquired by the users in the process of making the final decision. Users then must consult other information sources. They first imply internal reports, in regard to the external reports, they are adjusted with their shape and contents to their needs, and respectively they are not standardized. For the purposes of internal reporting it is necessary to process the accounting information to acquire information directed to a goal. Costs accounting, observed through information, is a part of the accounting that assures all the necessary information for the management of the activities which produce costs. It is necessary to define locations and bearers of costs for management. In the sense of accounting, location of costs is functional, spatial or real rounded entirety inside the subject, in which or connected with it, produces costs in the business activities, which is divisible on the bearers and which is accountable for. **In the case of the budget users, location of costs could be represented by the individual internal services managed by a certain person, respectively, there is a defined responsibility for them. The bearers of the costs are individual programs, respectively, activities and projects determined by the financial plan or budget. With the defining of location and bearer of the costs, inside the budget user, quality background is made for the measurement of performance and responsibility through out the mean of performance indicators. Information presented with the performance indicators are not the information from internal or external reports, but they are processed accounting information significant for the management and deciding process of budget users.**

Performance indicators are significant for the successful management in the system of the higher education because they make possible for the users to assess:

- **Success in regard to defined goals,**

- **Success in regard to prior achieved success and**

- **Success in regard to achieved success of similar institutions.**

5. CONCLUSION

Measuring and reporting success of the higher education institutions, based on the performance indicators, is significant for the making of decisions, respectively, for successful management and administration. Performance indicators allow for the institutions self-measurement of their success. Performance indicators enhance efficiency, transparency and reliability of institutions and allow savings.

In order to assure the quality of higher education, it is necessary to implement evaluation and assessment of the educational institution as a whole, individual subject area, plan and program of the studies. Performance indicators, proposed by this paper, are a background for the evaluation of higher education institutions. They influence the enhancement of services provided for the users, and the results of the analysis can be a good recommendation for the promotion of the program and studies performed by the institution.

Proposed model for the performance measurement can also be significant for the state government authorities. Basing the performance indicators, it is possible to evaluate performance of an institution in performance of an activity for which it has been established, in the questions of the quality, as well as in the questions of financial justifiability of execution of some programs.

Accounting information and performance indicators make significant foundation for the successful implementation of the supervision of the higher education institutions.

Relatively small number of researched countries may be seen as a possible limitation of this paper, but the important is their significance and the level of the development of performance measurement. Since there are no prescribed reports of the performance in the public sector of the Republic of Croatia, the results of the undertaken research can be significant in the process of the establishment of the sets of performance indicators for the higher education system in the Republic of Croatia. The research could be spread on the analysis of the higher education institutions based on a suggested model.

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FOREIGN DIRECT INVESTMENTS IN TRANSITION COUNTRIES AND CULTURAL SIMILARITIES: THE CASE OF SERBIA

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Key word: *national culture, foreign direct investments, transition*

Abstract:

This paper offers theoretical and empirical analysis of the relationship between the characteristics of national cultures and the propensity to invest in a certain culture. We start with an assumption that national cultures should be regarded as an important factor of attracting foreign direct investments. Research conducted in this paper is based on the results obtained within cross country survey on national cultures based on the Trompennars' cultural maps, intersected with the data of national statistics on FDI in Serbian economy. Research findings support the hypothesis that propensity to invest in a certain country is influenced by the degree in which investors' and recipients' cultures are similar in important cultural values.

1. INTRODUCTION

The aim of this paper is to identify and explore presupposed interdependence between cultural profiles of countries that invest in transition economies and those of transition economies that receive foreign direct investments (FDI), as well as to test the significance of that relationship. Specifically, we shall explore these interrelations analysing the case of Serbia. The theoretical and empirical analysis of the characteristics of national cultures is based on the results obtained within a cross country survey on national cultures of a number of Southeast European (SEE) countries and Russia taken in 2005. The project was conducted by a number of the SEE scholars led by a team from the Faculty of Economics in Ljubljana and was based on the Trompennars' cultural maps (Prasnikar and Cirman, 2005). The obtained results are particularly interesting since they include responds of certain population groups from the SEE countries and Russia, the countries that were not individually analysed in previous researches as they were parts of former Yugoslavia or USSR (e.g. Hofstede, 2001).

In the paper we try to explore the role of cultural profiles in attracting FDI from specific countries analysing together cultural similarities and the data from the official statistics about the major investor countries in Serbia. We start with an assumption that national cultures should be regarded as an important factor of attracting FDI. Therefore, we shall investigate how much the propensity to invest in a certain country is influenced by the degree in which investors' and investing cultures are similar in some important elements and/or how an investor could make decisions which country to invest in by considering similarities in national cultures.

After presenting theoretical framework and the results of empirical findings, the paper points out some implications that research results offer for business and government of the SEE countries.

2. RESEARCH BACKGROUND

As stated above, the results of cultural profile analysis come from recently conducted research that predominantly studied the affinity towards basic cultural dimensions among the population of young managers in the relevant countries and/or MBA and other master students of the corresponding faculties of economics[1].   National culture was defined, operationalized and measured by using a well known Trompenaars model that includes seven dimensions: (1) universalism – particularism, (2) individualism – communitarianism, (3) neutral – affective, (4) specific – diffuse, (5) achieved status – ascribed status, (6) time orientation (past- / present- / future- or sequential time – synchronic time) and (7) internal – external orientation. Some basic results obtained for Serbia are visually presented in the *Figure 1* (below) and are compared with the maximum and minimum values obtained in the entire survey for each dimension.
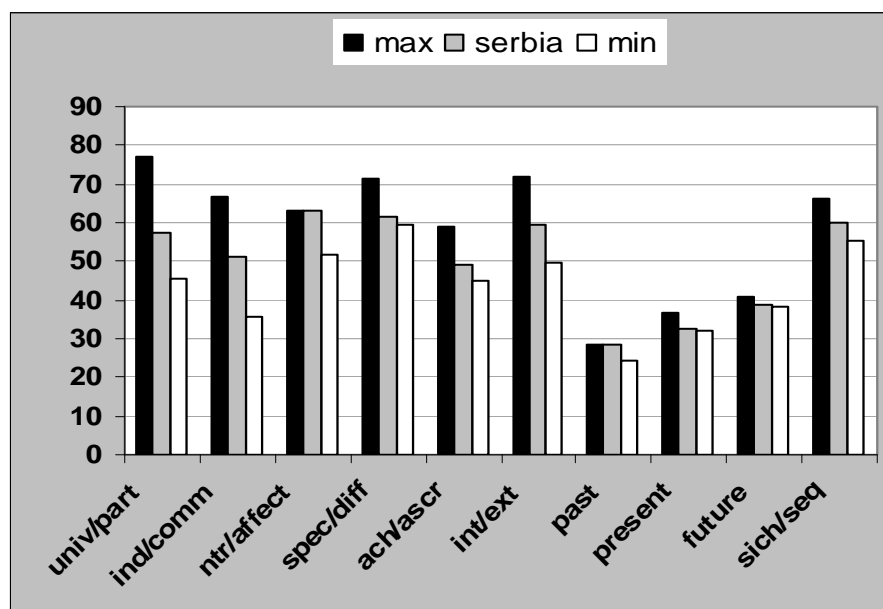
Figure 1.

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[1] It should be noted that in case of Slovenia there were some surveys that covered responses from several firms and in case of Serbia one firm was included (within the analysis of its relationship with a Slovenian enterprise). However, in this paper we shall use the results that are obtained from the survey done among young managers and management master students since they are more comparable.

Here we shall make a brief overview of the results and point out statistically significant differences that have been remarked among the countries analysed in the survey.

Generally speaking, we can remark that a great number of Serbian results are placed somewhere in the middle of a hypothetical scale of all obtained responses within the SEE countries (as presented in *Figure 1*)[2]. Looking at each cultural dimension separately, we found the following basic results (as presented in the *Table 1*, below)[3].

Universalism – particularism. From the results we may conclude that Serbia does not show statistically significant difference regarding the average figure for this pair of cultural values. Looking at the whole sample and at the cases of significant differences it appears that in Serbia a greater attention is given to the obligations derived from the relationship and unique circumstances rather than to universal rules when compared with Slovenia for example, but the opposite is true when compared with young managers from Banja Luka, B&H and (outside SEE) Russia, in particular.

Individualism – Communitarianism . Serbia, again, does not show statistically significant difference regarding these cultural values in comparison with the average results. As from the Figure 1, Serbia is somewhere in the middle regarding this dimension. That is interesting since previous research conducted by Hofstede recognised former Yugoslavia as a highly collectivistic culture (index 26 on the scale from 1 = collectivism to 100; Hofstede, 2001). The results of the study made in 2005 show a considerable switch towards individualism, especially in the group of Serbian graduates, which probably comes as a result of ongoing transition changes. Similar conclusion is also valid for other countries that were parts of former Yugoslavia.

Table 1: Cultural profiles of young managers in SEE countries and Russia

	Universalism Particularism	Individualism Communitarianism	Neutral Affective	Specific Diffuse	Achievement Ascription	Internal External
Slovenia	**63.9**	52.9	54.6	64.3	**59.2**	**61.6**
Croatia	63.3	52.6	54.4	59.4	54.3	55.4
Bosnia &H	58.6	56.2	56.9	60.2	***48.1***	56.5
Serbia	57.2	51	**62.9**	61.3	49.2	59.4
Montenegro	**76.9**	**66.6**	57	63.8	54.2	**72.1**
Russia	***45.6***	**59.7**	**61.8**	69.6	56.3	***49.9***
*Cultural profiles of young managers in selected countries are given in non aggregated form Source: Adapted from Prasnikar, J. and Cirman, A. 2005, Tabela 3, p.115						

Neutral – Affective.   Somewhat surprisingly, Serbian result does significantly differ from the average in favour of neutralism. This implies that business relationships are

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[2] That is not quite unexpectedly especially when looking from the country's capital perspective: as a relatively big city within the SEE region, Belgrade has apparently been exposed to various cultural influences during its rapid development after the World War II, making in that way some kind of a mixture of conventions, traditions, reasoning and other cultural patterns. However, some of those mixed effects could be attributed also to a certain degree of confusion (raised in the 1990-ies), characterised by a mixture of collectivist ideas of the past with the new ones that were basically nationalist in nature and with some (sometimes biased) that should reflect civil society ideals and ideas of a free market economy.

[3] For more results see: Cerovic and Aleksic (2005) and Prasnikar *et al.* (2005)

seen more strictly neutral in Serbia than in other analysed SEE countries, and that expressing emotions is not welcome in Serbian business context. Moreover, comparing only results for Serbia and Slovenia it is noticeable that young managers in Serbia show significantly higher level of neutralism, while Slovenians incline towards more affective position (Slovenia: 54.6; Serbia: 62.9). The same pattern appears in the case of Croatia (Croatia: 54.4), while other SEE countries are placed somewhere in between.

Specific – Diffuse.   The results for Serbia are not significantly different in comparison with the obtained average of the investigated cultures. Moreover, none of the SEE countries included in the research showed any statistically significant difference in results. Generally, they are all (with the exception of Croatia which stays a bit below 50 on the 1-100 scale) tending towards specific pole of scales, which is to say that they look at business relationship as prescribed by a contract and do not allow it to expand to other areas, such as private life[4].

Achievement – Ascription.   Serbian result does not differ statistically significant in comparison with the average and is again close to the average result of the sample. However, there are significant differences among the SEE countries: Slovenia is much closer to the notion of *achievement* while Bosnia and Herzegovina (Banja Luka and Sarajevo) is significantly closer to an ascribed status. Moreover, when compared between Serbia and Slovenia only, all results are statistically significant and suggest a considerable difference between the two countries.

Internal – External   Once again, Serbian results do not show any statistically significant difference in comparison with average figures and are again in the middle of the sample, but on the upper side of the scale (59.4, i.e. more external). Nevertheless, there are significant differences observed in Montenegro and Slovenia: they suggest that in these two countries young managers see *internal* forces as significantly more influential than in Serbia, and that what happens to a person (organisation, country) is broadly due to its own doing rather than to some outside impact.

As we have presented in the above comments there are some significant differences among the SEE countries regarding cultural values. Despite the fact that Serbia appears frequently in the middle of the scale and on average of the sample, awareness of the importance of observed differences gave us an idea to explore their meaning for making business decisions. Among all, we find investment decisions to be particularly interesting field for our analysis, since FDI appear as an important element in the present state of the Serbian economy, and that understanding of factors that incite foreign investors could be of an undisputable significance for further development.

On the other hand we are aware of an interesting fact that SEE countries, when put in a larger sample, exhibit more similarities and appear much closer to each other

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[4] The only exemption in the whole sample is found in Russia: its result differs significantly i.e. is significantly closer to the *specific* notion, which is a bit surprising. The difference between expected and obtained may come as a result of the pressure for socially acceptable behaviour, which promotes values that are considered as ''western'' and therefore, desirable.

regarding cultural values[5]. This could be of major importance for our analysis and assessments. During a transition process investors come practically from all over the world; however, their investment efforts and interests are not exactly the same. We shall try to explore to what extent the closeness of cultural values can explain why some neighbouring countries appear as frequent and more regular actors in investing into the Serbian economy when compared with the attitudes of other foreign investors.

II. FDI DETERMINANTS AND NATIONAL CULTURE

It is a well known fact that the importance of FDI has globally increased in several past decades. From 1989, the flows of FDI have been particularly increasing in the region of Central and Eastern Europe and other transition countries. FDI were an important hold up for these economies to successfully and as painless as possible, pursue transition process from socialist to a market economy. Therefore, it does not come as a surprise that this field impels the attention of researchers for theoretical, as well as for empirical work. Yet, as Clausing and Dorobant (2005) note ''*…while many previous studies have examined the determinants of FDI, there are relatively few that consider FDI in the CEE region, even fewer that consider the entire first decade of transition''*. When considering the SEE region, there is even less evidence whereas the necessity for theoretical and empirical findings is constantly increasing.

Although in a delay, Serbia is one of those SEE countries, which is pegging along its transition path, with an intention to radically change its economic system. After the October 2000 democratic revolution, a blooming of foreign capital inflows to the country was expected, both through direct foreign investments in a form of greenfield entry and acquisitions, and thorough strategic partnerships. FDI were considered to be of great importance not only because of the inflow of fresh capital, but for expectations that they support learning and acquiring of new skills, which consequently spills over the entire economy.

The research done so far in analysing why Serbia might be an attractive investing place recognizes several reasons as important, such as its key regional position, industrial research tradition and good background in engineering/production skills, natural and human resources and lower costs for salaries of skilled workers, as well as for management position and finally, some tax incentives[6].

Previous research in the field acknowledges factors that influence investors decision on the country which to invest in. Some of the most usually cited reasons are market size, labour costs, tax rates, capital costs and political stability, country risk etc. (Wheeler and Mody, 1992; Wang and Swain, 1995; Devereux and Griffith, 1998; Lankes and Stern, 1998; Bevan *et al.* 2001; Merlevede and Schoors, 2004). There are also evidence from early years of transition that have pointed out some less expected elements in attracting foreign investors, such as the predominant importance of the positioning in a new market rather than tax incentives etc. (Blaho and Gal, 1997). It is apparent that among studied arguments about FDI none of them considers the influence national culture has on this process. Although there are studies that analyse FDI and other international business decisions from the standpoint of cultural

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[5] See, for example: Prasnikar *et al.* 2005, Priloga pp.127-129
[6] For more in depth research please see *National strategy for encouraging and developing foreign investments*, 2006.

diversities (e.g. Kirkman *et al*, 2006; Brock and Johnson, 2004; Baumgartner and Hausman, 2001; Kogut and Singh, 1988 etc.) we did not find any corresponding paper specifically dedicated to economies in transition.

However, this was not the only reason that gave us an impetus for present analysis. In an older paper (Cerovic and Nojkovic, 2003) we have already encountered some elements that directed our attention to the role of cultural heritage and its role in contemporary processes. Exploring probabilities of transition countries to enter the EU we have unveiled an intriguing fact that the EU decision about accession of a certain country is based rather on its *historical* and *geographical closeness* (to the EU) than on its *present economic performance and institutional development*. Moreover, this result shad a new light on FDI flows. Although we have confirmed a link between EU accession rating (announcement) and FDI (like Bevan and Estrin, 2000; Clausing and Dorobant, 2005) our result was not a clear cut in terms of dependence: above mentioned results indicated that FDI inflow could be regarded rather as an EU instrument of upgrading economy of a *desirable* country than a factor that will make it more developed and therefore, a desirable accession candidate. So, desirability itself appeared to have to do more with historical, in other words cultural, closeness than with performance of a country[7].

As we have seen most of the research concerning FDI and transition economies done so far, addresses characteristics of recipient country's population in some aspect, none of them considers the influence that national culture might have on this process. However, as we could see including our comment on the EU policy from above, national culture could be recognised not only as an important determinant of the direction FDI flow and their origin, but also as a determinant of their scale and cause including even type of entry (Kogut and Singh, 1988). In the case of Serbia, the dominant form of entry was through privatisation, whereas strategic partnerships (joint ventures) and greenfields were lower. Greenfield entry assumes that an investing company enters foreign market individually by starting business independently. Strategic alliance is the type of business cooperation in which two or more firms unite to pursue a set of goals and remain independent subsequent to the formation of the alliance; finally, mergers and acquisition assume that company doesn't maintain its economic and legal independency, but becomes a part of another.

Analysing data about these types of investment we have discovered that certain countries play an important role among the biggest investors in the Serbian economy, through several types of entry. Thus, for instance, among the biggest three greenfield investments done in the period 2000-2004 we can meet Slovenia from close surroundings, among the biggest strategic partnerships and joint ventures we encounter Germany as a major player (4 of the biggest 6), and among ten biggest investors through privatisation there are five that come from closer surroundings (Greece 2, Austria, Slovenia and Croatia).

Unfortunately, due to a very small number of available data grouped by the type of investment and entry we are not able to produce here a valuable analysis that will explore the influence of the culture on this remarkable distribution of investor

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[7] Although we obtained our results by means of relatively complicated statistical investigation it seems that life can verify them in an easier way: don't we recognise predominantly cultural arguments within the ongoing discussion on Turkey's accession to the EU?

countries across various types of FDI. For that reason we shall pursue an analysis that should clarify how much observed cultural similarities attract investor countries to enter Serbian economy in terms of total investment inflows over the period 2000-2004 as well as from the standpoint of relative importance of FDI made for the investor country in question.

3. FDI IN SERBIAN ECONOMY

As stated above we shall analyse FDI inflows into Serbian economy in the period 2000-2004. In that period total FDI inflow was around US$ 3 billion (in money and a fraction in commodities)[8]. In fact, the amount should be larger if it included further investments done after the initial inflow but due to reorganising and restructuring of data collection we were not able to get all these figures. All available data by selected countries are presented in *Table 2* below.

Table 2: FDI in Serbia by investor country (mill. US$)

Country	2000	2001	2002	2003	2004
Holland	0	0.1	2.24	599	102
Austria	0.2	1.4	33.9	93.7	146.1
Germany	6.1	9.8	82.8	75.7	52
Greece	0.3	1.3	12.5	62.3	53
Croatia	0	1.1	5.2	34.5	10.8
Slovenia	0.03	11.2	9.6	29	15.7
Italy	2	0.6	7.6	21.3	10.1
UK	0	1.2	6.6	20.6	79.6
USA	0.3	1.9	18.1	15	18.2
Switzerland	0.03	0.1	2.9	12.6	29.4
France	0	0.1	87.5	7.9	24
Bosnia & H	0.2	0.2	2.9	5.1	2.1
Hungary	0	0.3	1.2	4.2	16.6
Russia	0.7	3.6	2.6	3.6	0.5
Belgium	0	0	0.3	1.9	2.5
Bulgaria	0	0	0.1	0.1	9.9
Israel	0	0	0.3	0.2	3.1

For the sake of an accurate analysis we find it essential to make two important remarks here:

(a) The table does not provide precise data concerning investor countries since it presents the origin of an inflow and not the origin of the company that invests. Therefore, we have to correct data (at least for the big investors). Thus, for example, Holland that appears as the biggest investor shows cumulative figures that include US$517 mill. of *Philip Morris* and US$ 210 mill. of *Lukoil* and, consequently those amounts have to be added to figures for USA and Russia. Similarly, in Austrian data we have do deduct US$70 mill. of *Henkel* and to add to German amounts. In further analysis we shall use these re-calculated values for each country.

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[8] We use data collected and calculated in National Bank of Serbia, Agency for Privatisation and last but not least, calculations presented in a PhD thesis (Matavulj, 2006).

(b) The countries in the table are selected according to available data concerning cultural values that we need for further exploration. Thus, the table does not provide data about all investor countries. In that way we have omitted some interesting investors like Cyprus and Slovakia US$80 and 40 mill, respectively. However, the real origin of these inflows is somewhat disputable (particularly for Cyprus) and therefore, we shall not suffer a big loss in our analysis.

Now, we can comment upon the presented figures. Although we can see an increase of FDI over time, we can also remark that certain countries appear occasionally with big amounts, but usually connected with a single big investment. On the other hand there are countries that seem to be relatively persistent in their share in overall sum of FDI. Looking at the percentage share of individual countries we have remarked that among big investors we encounter several countries from vicinity like Austria, Greece, Slovenia and Croatia (the latter two exhibiting a substantial share in total FDI that is comparable with UK and France, for example, that is around 5%). In our view this means that some countries appear persistently and play the role of a real strategic partner of Serbia. The fact that they predominantly come from closer surroundings strengthen our intention to explore the influence of cultural distance in their attitude. Having in mind all these intriguing facts we refer to our statistical analysis and empirical evidence.

4. EMPIRICAL EVIDENCE

After re-arranging figures from the table according to the note (a) from above we were faced with an interesting question – which countries are really the biggest investors. Cumulative, absolute figures of FDI could be misleading: the importance of an investment of, say, US$50 million is not just equal for each country from our list. The same amount could be negligible for a big economy like USA, UK or Germany, but a substantial value for a smaller country like Slovenia, Croatia etc.

For that reason we have constructed and decided to analyse a kind of relative values that show a five year sum of investments made by an investor country as a share of its yearly GDP[9]. In that way we intended to weigh all FDI amounts from the standpoint of investor countries and to recognise principal investors. The variable constructed in that way will be denoted onwards as FDIcum/GDP.

In order to define a possible influence of cultural similarities among countries in decision making, we calculated correlation coefficients for six cultural indicators (as discussed in section II of this paper) for Serbia and investor countries[10]. These coefficients are presented in *Table 3*, below.

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[9] Source: World Bank (http://web.worldbank.org/)
[10] We used comparable data of six cultural indicators for selected countries from Prasnikar et al, 2005; Tabela 3, p. 115

Table 3: Correlation coefficients for six cultural indicators

	Serbia		Serbia
Serbia	1	Holland	-0.47288
Austria	-0.11323	Hungary	-0.51644
Belgium	-0.04153	Israel	-0.96908
Bosnia & H	0.83377	Italy	-0.74157
Bulgaria	0.35381	Russia	0.62583
Croatia	0.63683	Slovenia	0.75142
France	-0.33886	UK	-0.55511
Germany	-0.27703	USA	-0.53715
Greece	-0.37493		

In *Table 4* we present our first equation where FDIcum/GDP appears as a function of cultural similarities (variable denoted: *Culture*) that are measured by correlation coefficients displayed above in *Table 3*.

Table 4: OLS Regression: Dependent variable FDIcum/GDP

Variable	Coef.	Std. Err.	t	P > ItI
Culture	0.7510	0.1811	4.1472	0.001
Intercept	0.5182	0.1023	5.0658	0.000
$R^2 = 0.551$	n = 16		F = 17.20	Prob (F-stat.) = 0.001

The presented equation suggests that '*Culture*' is explanatory powerful and that similarities in national cultures alone are able to explain around 55 % of FDI inflow to Serbia in first five years of transition.

Although encouraged by that result, but taught from our paper about the EU attitude that geography could also play some important role in decision making, we continue by checking whether the result obtained is sufficiently firm if we put into equation some variable that indicates geographical distance between investor countries and Serbia as a recipient country. This distance variable is also important if we take into account well known findings by de Melo *et al.* (1997) that distance from a big market could be an important factor for faster break out from transition recession, which in turn, may be understood as a factor that could attract FDI, bearing in mind the role of FDI in accelerating growth.

We tried with two equations. In the first one we put distance in km between capital cities of countries in question and got a result that further points out the importance of 'cultural' variable whereas distance had no significant effects. Thus, we changed distances in km for a dummy variable: *Distance* = 1, if the distance between Serbian capital to capital city of investors' country is less than 1000 km and 0 otherwise. Seen in that way distance between became significant, but *Culture* still had a principal role, as presented in *Table 5*.

Table 5:   OLS Regression: Dependent variable FDIcum/GDP

Variable	Coef.	Std. Err.	t	P > ItI
Culture	0.5854	0.1643	3.5636	0.003
Distance	0.4796	0.1821	2.6337	0.021
Intercept	0.2604	0.1301	2.0013	0.067
$R^2 = 0.707$	n = 16		F = 15.71	Prob (F-stat.) = 0.0003

This equation suggests that both factors, cultural similarities and closeness of investors' country, are significant, the latter at 5%, while together the two determinants can explain around 70 % of FDI inflow.

In order to further investigate the role of cultural similarities when assembled with some other FDI determinants as presented in the section II of this paper we put a new variable that could indicate the importance of market size of the recipient country for investors. After estimating a few alternative specifications and measures for market size[11] we decided to use the ratio of population in investors' country to population in Serbia that could indicate a possible increment of investor's market in terms of new potential buyers. The new equation produced the following results (*Table 6.*):

Table 6:   OLS Regression: Dependent variable FDIcum/GDP

Variable	Coef.	Std. Err.	t	P > ItI
Culture	0.5857	0.1696	3.4533	0.048
Distance	0.4374	0.2109	2.0742	0.060
Market size	-0.0048	0.0109	-0.4416	0.667
Intercept	0.3102	0.1755	1.7679	0.102
$R^2 = 0.712$	n = 16		F = 9.89	Prob (F-stat.) = 0.001

Apart from an expected high R-square value (again around 70%), the above equation firmly suggests that cultural similarities as well as geographical distances remain significant and yet that cultural similarities are still more influential. The impact of Serbian market size was statistically rejected. This brought us to our final conclusion that factors like national culture exhibits an undisputable importance in directing, managing and attracting of FDI at least in the SEE region.

5. CONCLUSIONS

Studying the case of Serbian economy and corresponding FDI inflows we have confirmed our hypothesis that national culture, at least regarding dimensions that we have taken into account, is an important and significant factor in explaining and in attracting FDI. The results obtained could also be extended to the entire SEE region where a considerable amount of FDI comes from surrounding countries.

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[11] We found that an appropriate relative measure for market size would be based on a ratio between investors GDP and recipient's GDP, since it would reflect the importance of the recipient's market from the standpoint of an investor country. However we have rejected this approach, since it will oppose the variable for FDI that incorporates investors GDP.

Although presented evidence clearly outlines an important role of closeness of cultural profiles between investor countries and Serbian economy as an investment recipient, we want to draw attention to the fact that these results imply some generally applicable findings that should be seriously analysed in explaining FDI flows among different countries:

- Propensity to invest in a certain country is influenced by the degree in which investors' and investing cultures are similar according to principal cultural values.
- The level of cultural proximity could determine continuity in business transactions among two countries: the higher the level of cultural fit is, the more synchronic flow of direct investments between two countries will be. Countries which show high level of cultural fit will tend to maintain a persistent level of investments between each other in terms of investment regularity and by assuring that this investment flows will remain active over time.
- On the other hand, culturally more distant countries show lower tendency to become important investment partners in a long run. The lower the level of cultural fit is, the more sequential flow of direct investments between two countries will be. Distant countries which show low level of mutual cultural fit could become important occasionally by means of a singular large investment, while in general investment flow between two countries could remain rather inactive.

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BUILDING ON RELATIONSHIPS AS AN INSTRUMENT TO ACHIEVE GOALS: A COMPARISON BETWEEN TRANSITIONAL AND STABLE DEMOCRACY

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Abstract

The Achieving Styles/Connective Leadership Model (Lipman-Blumen, 1996) provides tools for studying individual and organizational behavioural strategies for achieving goals by distinguishing nine styles people use in various situations. Organizations, for their part, are evaluated for their tendency to reward certain kinds of achieving behaviour and to ignore others. In this paper, we present a quantitative research on goal-oriented behaviour of twenty-nine Bulgarian and thirty-seven Finnish politicians (all members of Parliament, MPs), who responded to the L-BL Achieving Styles Individual Leadership Inventory and the L-BL Achieving Styles Organizational Inventory. The results reveal that the Bulgarian MPs prefer to employ mostly the intrinsic-direct behavior, which is dominated by the personal ambition to excel. Also, the findings clearly show that the Bulgarian participants tend to ignore the instrumental strategies as a whole, among which the social-instrumental style, which is indicative for relying on relationships with others as a means to achieve goals, ranked as their least preferred one. As of Finnish politicians, they tend to employ much more balanced spectrum of achieving styles. In particular, the social-instrumental behavior is well presented. We speculate on utilizing relationships with others as instruments to get things done in terms of differences Bulgarian and Finnish society exhibit. More specifically, our comparative study aim at analyzing the weak social-instrumental behavior in the context of the transitional changes Bulgaria has been experiencing during the last decade, while the Finnish democracy has been rather stable and well-established within the European context during the same period.

1. INTRODUCTION

Getting things done through other people has usually been understood as a contradictory affair. On the one hand, phrases such as 'political moves' or 'organization politics' have acquired some pejorative connotations, for example self-serving behaviour and dealings "behind-the-scenes" (Gandz and Murray, 1980). In their recent study, Ibarra and Hunter (2007) found that actually most of the managers they worked with recognized the influence tactics to obtain ends through using networks of people as insincere or manipulative and therefore immoral. On the other hand, the same writers, as well as other recent research, highlighted the positive side of using strong political and networking skills to accomplish tasks successfully at the workplace (DeLuca, 1999; Lipman-Blumen, 2000; Reardon, 2005; Gilley, 2006; Hartley and Branicki, 2006). In their proposed political theory of leadership, Ammeter *et al*. (2002) assigned the term 'political' to influence and meaning management processes in an organizational settings, and not to manipulation and unethical behaviour. Whatever the socio-economic and cultural context, individuals tend to develop and maintain their own networks of trusted people or personal ties that could help them in accomplishing tasks. In some cultures, it is considered as rather immoral self-interested behaviour, yet in others it is grasped as a legal and reasonable approach for putting things in order.

This study addresses this controversy by exploring how members of Parliament in two European countries perceive achieving goals by utilizing relationships. Bulgaria and Finland are in a different stage of their socio-economic development, namely Bulgaria is a transitional country, and Finland is a well-developed and stable democracy. Although Bulgaria joined the European Union on 1st of January 2007, its case is quite interesting as the country is experiencing a prolonged transition period in comparison with other post-socialistic countries. Regarding Finland, during the past decade the country has strengthen its position as one of the world's leading knowledge economies, showing remarkable advance in education, research, and product development (Dahlman et al., 2006; Repo et al., 2005).

Current literature suggests that political awareness is a crucial leadership skill (Lipman-Blumen 1996; DeLuca, 1999, Hartley and Branicki, 2006). In this paper, we adhere to the notion of Lipman-Blumen (1996) about the instrumentality of the goal-oriented behavior. As this scholar take it, using other people's talents to achieve goals ethically (i.e. the Social Instrumental achieving style) is a component of a broader construct, labeled the Achieving Styles and Connective Leadership Model (Lipman-Blumen, 1996). In particular, social instrumental achievers have the capacity to see the relationships and mutuality not only between particular individuals, but also between ideologies and seemingly disparate groups. We conducted a comparative quantitative study by utilizing the Achieving Styles/Connective Leadership Model, and characterize politicians' goal-oriented behavior by using a set of nine achieving styles. Specifically, we address the use of political skill or utilization of Social Instrumental achieving style as a means of getting work done. We explore three research questions:

- First, what are the achieving styles profiles of Bulgarian and Finnish politicians, members of Parliament (MPs)?
- Second, in what ways do building on relationships as a means to achieve goals differ between Bulgarian and Finnish MPs?
- And third, how these differences can be explained?

Political skill represents a complex set of skills needed for navigating the political dynamics of an organization in order to achieve one's goals. Some of these skills include developing

and maintaining personal informal networks, building relationships and grasping them as 'vital and legitimate conduits' (Lipman-Blumen, 1992) for reaching one's goals within and between organizations. A politically perceptive individual is like a chess-player who has strategic mindset, play with black or white pieces, i.e. work through other people, and thus is able to select specific pieces, i.e. individuals, for specific tasks. As a relationships expert, he/she is not likely to work alone since he/she knows that to get work done it is important to build coalitions and alliances. Ferris *et al.* (2000) defined political skill as "the ability to influence others to act in ways that enhance one's personal and/or organizational objectives". Therefore, individuals high in political skill combine social astuteness with the capacity to adjust behaviour to changing situations in a way that appears to be sincere, inspires support and trust, and effectively influences and controls the responses of others. Markman and Baron (2003) suggested that competencies that enable individuals to interact effectively with others refer to the so-called social skills, which play a key role in all social interactions.

According to Lipman-Blumen (1996) the social instrumental achievers have *"strong political sensibility"* (p. 194) and *"call on relationships without embarrassment, guilt, or discomfort"* (p. 210). In other words, recently ever more and more scholars recognize the phenomenon of getting things done through other people as a legitimate strategy for achieving.. Lipman-Blumen (1996) found a connection between the instrumental achievers' appreciation of relationships and the Chinese word *guanxi*, which literally means "a relationship" between object, forces, or persons, and refers to 'instrumental-personal ties that range from strong personal loyalties to ceremonial bribery' (Walder, cited by Xin and Pearce, 1996). In China, *guanxi* does not carry negative connotations though. Interestingly, in their study Xin and Pearce suggested that *guanxi* is perceived as a substitute for an inadequate formal institutional support.

To date, there is too little understanding of the role of political skills in transitional settings. Hansson (2001) examined the informal social networks as providers of additional resources in Estonia, and concluded that although the Soviet-type exchange networks had lost their formal meaning, the informal social networks are still quite important as a means of support. Recently, Van Ees and Bachmann (2006) investigated trust building through adopting a network perspective, and found that both in developed market economies as well as in transition economies much of economic exchange takes place in networks. However, the concept of trust can differ significantly in transitional and developed societies.

2. THEORETICAL BACKGROUND

The present study is based on the Achieving Styles/Connective Leadership Model (Lipman-Blumen, 2000, 1998, 1997, 1983). Achieving styles are defined as characteristic forms of behaviour that individuals employ to achieve their goals. Style is considered here as a consistent pattern of behaviour. Connective leadership emphasizes connecting individuals to others and others' goals. Individuals as well as organizations pursue their own objectives, or can also work towards goals assigned by others. The Connective Leadership Model provides tools for assessing individual and organizational behavioural strategies for accomplishing tasks. The Model distinguishes nine styles that people use to achieve their goals in various situations. Organizations, for their part, are evaluated for their tendency to reward certain kinds of achieving behaviour and to ignore others.

The Connective Leadership Model is visualized by a circular conceptualization, which arranges the spectrum of nine goal-oriented types of behaviour into three sets of styles, as follows (see Figure 1.):
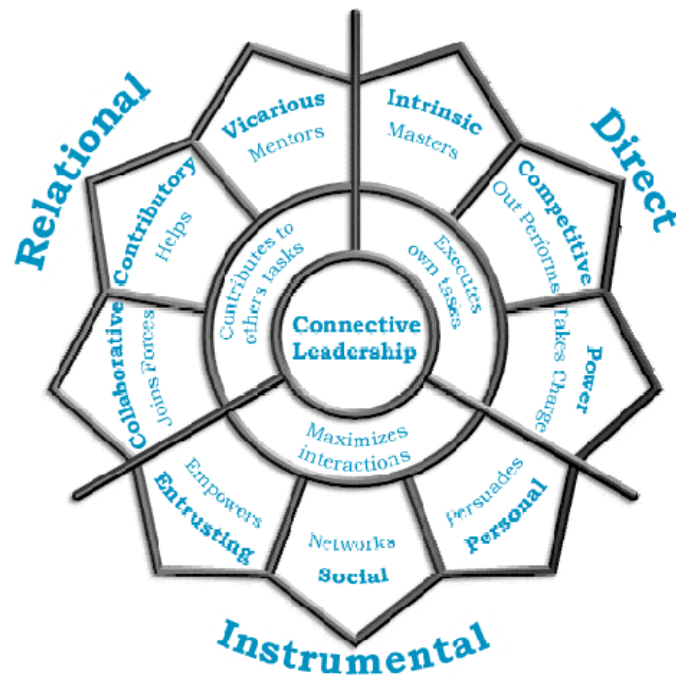
Figure 1. The Achieving Styles and Connective Leadership Model (Source: www.achievingstyles.com).

- The Direct set includes three styles that are oriented towards confronting a task directly. This set represents the trend of relying primarily on one's self and one's own resources. The three styles within the Direct set are labelled intrinsic, competitive, and power. The *Intrinsic Direct style* represents one's tendency to focus primarily on performing and mastering one's own tasks, and to sum up the results according to an internal standard of excellence. The *Competitive Direct style* is guided by an external standard of excellence, and assesses one's accomplishments in comparison with those of others. The *Power Direct style* calls for being in charge and organizing the task and people so as the task at hand to be accomplished.

- The Relational set emphasizes contributing to the completion of other participants' or groups' tasks. It is related to interdependence, or working together. The three styles within the Relational set are labeled collaborative, contributory, and vicarious. The *Collaborative Relational style* shows one's tendency to devote to the group and its goals, and taking one's share of responsibility for successes or failures. The *Contributory Relational style* focuses upon working behind the scenes to help in the achieving others' goals. The *Vicarious Relational style* involves contributing indirectly, for example through mentoring, to the success of others.

- The Instrumental set of behaviour types seeks to maximize interactions between one's self and others, who are seen as instruments for goal achievement. It is closely linked to political savvy. The three instrumental styles are personal, social, and entrusting. The *Personal Instrumental style* counts on personality strengths, such as intelligence,

attractiveness, sense of humour, and charm, to involve others in a task. The *Social Instrumental style* relies on existing or newly formed relationships as a means of getting things done. Utilising this sort of behaviour helps of recognizing the connections between people and tasks, and includes strong political and networking skills. The *Entrusting Instrumental style* focuses upon delegating tasks to others and individuals who are using this style have the capacity to bring out the best in others so as to achieve a goal or complete a task. Entrusting achievers also expect that everyone will help them in achieving their goals.

3. RESEARCH CONTEXT

3.1. Bulgaria: On the way to the modern democracy

Founded in 681, Bulgaria is one of the ancient European states. It is a South-Eastern European country situated in the heart of the Balkan Peninsula with a total land area of about 111,000 square kilometres. The population is 7,4 million (July 2006, The World Factbook). According to the Constitution, Bulgaria is a republic with a parliamentary form of government. The National Assembly of Bulgaria (Bulgarian: Народно събрание, transliterated as Narodno sabranie) is the unicameral parliament and body of the legislative of the Republic of Bulgaria. The Parliament consists of 240 members elected for a four-year term. The First Constituent Assembly of the Bulgarian Parliament has been held on 10^{th} February 1879. Today, 128 years later, the 40^{th} National Assembly consists of 240 MPs and the first sitting was held on 11^{th} July 2005. Concerning the time when data for the present study was collected (the 39^{th} National Assembly), the ruling body was composed by four parliamentary groups, namely National Movement Simeon II, United Democratic Forces, Coalition for Bulgaria, and Movement for Rights and Freedoms. The first sitting was held on 5^{th} July 2001 and the last sitting was held on 17^{th} June 2005.

Bulgaria began its transition to democracy on 10th November 1989. The transition process presented a great challenge for the country, which has been experiencing changes in institutional, political, and corporate environment. Although in the past few years incomes and living standards have remained low, compared to those in the European Union, Bulgaria's society has shown certain advances in its development. Bulgarian economy has been performing well, the institutional transformation has been improving, the country has modernized, and democracy has grown stronger. As a result, on 1 January 2007, 17 years after the fall of communism, Bulgaria became a member of the European Union.

The complexities of the tasks facing the country, however, are getting even higher now, and thus require a growing national consensus on the solving of crucial problems, such as corruption, organized crime, and the fairness of the juridical system. According to Michailova (1997) Bulgarian politicians and members of Parliament have to work towards constructive interactions and coalitions. Despite significant progress, there is a general lack of commitment among the political parties of working together so as an advantageous solution to be pursued. Although Parliament is meant to be a forum for political debate, the media in Bulgarian often exhibits the destructive fights between the political groupings, as well as the improper behaviour of certain political figures. Chavdarova (2001) has studied corruption in Bulgaria and argued that corruption has been "embedded in personal connections patronage practises" and served as an instrument for hidden privatization in the redistribution of national wealth.

Chavdarova also argued that readiness to exploit political power in the pursuit of private gain could be often observed at present in Bulgaria. Therefore, we assume that getting things done though relationships in the Bulgarian society appears to be as a substitute for a missing stable rule of law and institutional protection. It does carry negative connotations, and therefore we expect so that Bulgarian MPs will neglect this type of behaviour.

3.2. Finland: One hundred years of Finnish democracy

Finland is a Northern European country with a total land area of 338,145 square kilometres (December 2006, The World Factbook). The population is 5,2 million (July 2006, The World Factbook). Finland is a modern country with high standards of living, advanced technology and stable democracy. Finland has been a member of the European Union since 1995 and has entered the euro zone in 1999. The form of government is republic and the Parliament consists of one chamber of 200 elected members. On the basis of the Finnish Constitution, Parliament exercises supreme decision-making authority in the nation. It passes legislation, decides on the state budget and supervises the activities of the Government and the agencies which operate under it. The new coalition government formed in June, 2003, and consists of the Centre Party, the Social Democratic Party and the Swedish People's Party.

The parliament of Finland, which is called the Eduskunta (in Finnish) or Riksdag (in Swedish) is the supreme legislative authority. It celebrates its 100th anniversary in 2006-2007. Finnish constitution enacts that "members of Parliament have an obligation to serve justice and truth. In practice MPs may have to put their personal opinions aside, since many decisions are based on compromises, negotiations, and thus solutions must take into consideration the views of an MP's party, parliamentary group and electors". According to Sairinen (2000) there is a "widespread support for common responsibility" in Finland, since the welfare state ideology has deep roots in Finnish politics. This specific attitude towards a collegiate decision-making has been a tradition in Finland since the seventeenth century, and it makes corruption much more difficult and in fact, almost impossible, in Finland (Tiihonen and Tiihonen, 2005). There are also some other important factors that explain why is corruption so seldom occur in Finland, among which the egalitarian society; public financing of political parties; strong governance, accountability, strong rule of law; transparency and openness; and focus on networking and coordination of policies among key government agencies and between them and the business sector (Dahlman *et al.*, 2005, Tiihonen and Tiihonen, 2005). Therefore, achieving goals by using relationships is judged in the Finnish society as a legitimate way of working. Given the widespread Finnish attitude to act ethically and honestly, the utilization of the Social Instrumental achieving style does not carry necessarily negative connotations.

Therefore, we hypothesize that Bulgarian MPs will score significantly lower than Finnish MPs in terms of showing preferences towards utilizing the Social Instrumental style.

4. METHODOLOGY

4.1. Instruments

Two instruments were used to assess individual and organizational achieving style profiles. The first instrument is the L-BL Achieving Styles Individual Leadership Inventory (ASI,

Form 13; Lipman-Blumen, Handley-Isaksen, and Leavitt, 1983). It rates nine categories of leadership behaviours that individuals use to accomplish their goals. Taken together, the nine types of behaviour constitute an individual's Connective Leadership Profile. The second instrument is the L-BL Organizational Achieving Styles Inventory (OASI). It measures the leadership behaviors that an organization rewards. Both the ASI and the OASI are 45-item, self-report, Likert-type instruments. The Likert-type scale ranges from 1 (never) to 7 (always). Finnish MPs's achieving styles profiles were assessed by using both the ASI and OASI, whereas only the ASI was used to evaluate the profiles of Bulgarian MPs.

4.2. Samples

Data regarding Bulgarian MPs was collected in 2003, while data for Finnish MPs was collected at the beginning of the 2000s. Bulgarian MPs were representatives of the 39th National Assembly. One-hundred Bulgarian politicians were chosen randomly and were invited to participate in the survey in the end of May and the beginning of June 2003. As a result, twenty-nine politicians responded (twenty-one male, eight female) by completing the L-BL Achieving Styles Individual Leadership Inventory (ASI). Except for gender and age, there is no additional demographic information about Bulgarian members of Parliament. As to the Finnish MPs, thirty-seven politicians took part in the survey. In contrast to the Bulgarian sample, the Finnish respondents of both genders were equally represented as nineteen were male and eighteen were female.

5. RESULTS

Table 1 shows the mean scores and standard deviations of Bulgarian MPs' individual behaviour, together with their ranks. The Intrinsic Direct style is clearly ranked first, followed by the styles from the Relational set, i.e. the Vicarious Relational style, the Contributory Relational style, and the Collaborative Relational style.

Table 1. Means, standard deviations and rank scores of the Individual Achieving Styles Inventory (ASI) for Bulgarian politicians, members of Parliament.

Variable: Achieving Styles	Bulgarian politicians, MPs Achieving Styles Inventory (ASI)		
	Mean	SD	Rank order
Intrinsic Direct	6.03	0.99	1
Competitive Direct	4.92	1.29	5
Power Direct	4.77	1.03	6
Personal Instrumental	4.49	1.29	7
Social Instrumental	2.73	1.22	9
Entrusting Instrumental	4.21	1.06	8
Collaborative Relational	4.94	1.48	4
Contributory Relational	5.49	0.79	3
Vicarious Relational	5.86	0.77	2

The means, standard deviations, and rank scores reflecting the individual (ASI) and organizational (OASI) achieving styles of Finnish MPs are summarized in Table 2. The Social Instrumental style is ranked as the most rewarded style in the Finnish Parliament, and the same style is the most ignored at an individual level by the politicians, members of the Bulgarian Parliament. The second and third most rewarded achieving styles by Finnish

Parliament are the Power Direct and Personal Instrumental styles. The individual scores in the Social Instrumental style for Bulgarian respondents (M=2.73) are also much lower compared with those of Finnish respondents (M=4.71). Overall, the results reveal that Bulgarian MPs do not report often use of networks and political skill as a means to achieve goals.

Table 2. Means, standard deviations, and rank scores of the Individual Achieving Styles Inventory (ASI) and the Organizational Achieving Styles Inventory (OASI) for Finnish politicians, members of Parliament.

Variable: Achieving Styles	Finnish MPs (ASI)			Finnish MPs (OASI)		
	Mean	SD	Rank order	Mean	SD	Rank order
Intrinsic Direct	5.47	0.70	1	4.19	1.06	6
Competitive Direct	4.22	1.08	9	4.73	0.97	4
Power Direct	5.03	0.87	3	5.11	0.80	2
Personal Instrumental	4.54	1.03	8	5.05	0.73	3
Social Instrumental	4.71	1.00	7	5.38	0.66	1
Entrusting Instrumental	4.90	0.91	4	4.14	1.02	7
Collaborative Relational	4.77	1.15	5	4.23	1.33	5
Contributory Relational	4.72	0.85	6	4.05	1.14	8
Vicarious Relational	5.35	0.79	2	3.70	1.16	9

Style ranks are used to estimate the rank correlation between any two groups of respondents, using Spearman's formula (Weinberg and Abramowitz, 2002). The rank values for the first and second group in the test can be denoted by X_i and Y_i, $i=1,...N$, respectively. The rank correlation is calculated as

$$r = 1 - \frac{6\sum_{i=1}^{N}(X_i - Y_i)^2}{N(N^2 - 1)},$$

where N denotes the number of styles, i.e. $N=9$. When Bulgarian MPs and Finnish MPs are compared, $r=.53$, which shows a big differentiation for how politicians tend to accomplish their tasks in a transitional society and in a well-developed society. The correlation coefficient for the relationship between Finnish ASI and OASI individual is $r=.72$, indicating that there is a statistically significant correlation between the individual achieving styles, preferred by Finnish members of Parliament, and the styles that their organization rewards (i.e. Finnish Parliament) in the beginning of the 2000s. The results showed that at an institutional level, the Finnish Parliament recognizes the legitimate power and the importance of the networking approach (Social Instrumental M=5.38, rank order 1, see Table 2), whereas at an individual level Finnish MPs still tend not to rate using this strategy of achieving as among their most preferred ones (M=4.71, rank order 7, see Table 2). The achieving styles scores of Bulgarian and Finnish MPs were compared using also an independent samples *t*-test (see Table 3).

Table 3. Independent samples t-test comparison between Bulgarian MPs and Finnish MPs.

Variable: Achieving Styles	Bulgarian MPs		Finnish MPs		Comparison	
	Mean	SD	Mean	SD	*t*	*df*
Intrinsic Direct	5.47	0.70	4.19	1.06	-2.71*	64
Competitive Direct	4.22	1.08	4.73	0.97	-2.41*	64
Power Direct	5.03	0.87	5.11	0.80	1.11	64
Personal Instrumental	4.54	1.03	5.05	0.73	0.18	64
Social Instrumental	4.71	1.00	5.38	0.66	7.27***	64
Entrusting Instrumental	4.90	0.91	4.14	1.02	2.82**	64
Collaborative Relational	4.77	1.15	4.23	1.33	-0.51	64
Contributory Relational	4.72	0.85	4.05	1.14	-3.76***	64
Vicarious Relational	5.35	0.79	3.70	1.16	-2.66**	64

*Note: *p < .05, **p < .01, *** p < .001.*

This statistical test revealed that there are significant differences between the two samples in terms of most the nine achieving styles, except for three of them, namely the Power Direct, Personal Instrumental, and Collaborative Relational styles. Since the *t*-value is significant for the Social Instrumental style, we draw attention to the effect size, which is referred to as '*d*'; thus we found that there is a large effect size for this style as *d* = 0.89. This result shows that it is the approach to the Social Instrumental style, which reveals the biggest difference between Bulgarian transitional economy and Finnish knowledge-driven economy in terms of achieving styles preferences.

6. DISCUSSION AND CONCLUSION

The objective of this study was to analyze the achieving styles of Bulgarian and Finnish politicians, all members of Parliament. More specifically, we aimed at exploring the differences that Bulgarian and Finnish MPs exhibit in terms of the degree they prefer to use others to accomplish tasks. The findings upheld our hypothesis and showed that Bulgarian MPs score significantly lower than Finnish MPs in terms of showing preferences towards utilizing the Social Instrumental style. The results clearly reveal that Bulgarian politicians do not prefer to engage in social-instrumental type of behaviour, and prefer to use mostly the Intrinsic Direct style, which is indicative for a personal ambition to excel. By contrast, Finnish members of Parliament tend to use much more balanced spectrum of achieving styles by reporting the regular use of all the nine achieving styles. The difference between the two samples in terms of the Social Instrumental style could be explained by examining this style as employing one's personal ties and networks to get work done. We suggested this type of involving the use of others as considered as rather unethical behaviour in Bulgaria and, on the contrary, as rather ethical and acceptable in the Finnish society.

Today's global environment is complex and dynamic for both the Bulgarian and Finnish political leaders, although they are facing different challenges. It appears that both Bulgarian and Finnish MPs understand that using political skill as an important trend, yet their views differ significantly. The literature suggests that personal connections in transitional economies may exemplify more useful social capital that can balance for the lack of institutional support such as transparent juridical system and regulations (Peng and Luo, 2000). One possible

explanation of the reported negativism in respect of social-instrumental behaviour on behalf of Bulgarian MPs is that they viewed political skills *narrowly* as self-interest behaviour, directed solely by advancing their own interests. Apparently, Bulgarian MPs most probably associated 'politics' with 'politicking' (Mintzberg, 1985), that is to say blaming, attacking, corrupt practices, manipulation and exploitation (Allen *et al.*, 1979, cited by Hartley and Branicki, 2006; Bower and Weinberg, 1988; Eiring, 1999). In contrast, Finnish MPs tend to consider political awareness as an essential 'power-based approach' (Hartley and Branicki, 2006) in order to influence in the context of today's highly dynamic and complex environment, which is intensified by the need to balance between various competing interests and inter-organizational coalitions and partnerships.

Tiihonen and Tiihonen (2005) believed that political culture and political institutions determine the development of the country and the level of corruption. Concerning the issue of corruption, our results indicate that in Bulgaria utilizing the Social Instrumental style is viewed by members of Parliament as a mark of possible corruption practises, whereas in Finland using this strategy for reaching one's goals is perceived as a legitimate and normal practise. Our results could be linked with the findings of the recent public opinion survey of the Transparency International Global Corruption Barometer 2006. This worldwide survey highlights people's personal experience of bribery, and identifies the sectors most affected by corruption. "Transparency International" defines corruption as 'the abuse of entrusted power for private gain'. In 2006, the justice sector in Bulgaria got the highest corruption index of 4.4, followed by political parties, Parliament and the healthcare sector. Furthermore, in 2003, when data for the present study were collected among Bulgarian members of Parliament, political parties showed the highest corruption index. According to the researchers at Transparency International, there are facilitators of corruption who "assist political elites to launder, store and profit from unjustly acquired wealth, which often includes looted state assets".

By contrast, Finland continues to lead the worldwide statistics in being the country with least corruption. This finding is not surprising for Finland being a well-developed and stable society and a successful knowledge-driven and networking economy. It fully correlates with our results, which demonstrates that Finnish members of Parliament, as well as the Finnish Parliament being one of the most important institutions, acknowledge that getting things done through "networking" at various levels is a commonly accepted way of working. Also, Finland has been a rather stable democracy with a long tradition of general elections. For example, in 1906 Finland became the first country in the world to get the right of women not only to vote but to stand as candidates for election too. In the same year, Finland was also first to have female MPs. In addition, public administration is open to everyone and a career as a civil servant, which ahs been highly regarded, has been open for everyone as well (Tiihonen and Tiihonen, 2005).

Bulgarian MPs interviewed tend to perceive questions such as "I get to know important people in order to succeed" or "I establish some relationships for the benefits they bring" as referring to corrupt practices. We suggest they are probably inclined to complete the inventories in a socially acceptable way. Notably, at present it is difficult for Bulgarian MPs to understand that using strong political and networking skills in achieving one's goal is not unethical indeed. It is also necessary to point out that just because one is elected as a member of Parliament, it does not make him/her a leader. In our view, there is a set of competencies required for political leadership, such as communication skills, working in partnership within different communities, and providing vision. Thus, politically skilled leaders should have

most of the competencies typical of the connective leaders (Lipman-Blumen, 1996) in terms of easily utilizing various achieving styles according to the requirements of the situation. Specifically, as Edwards (2005) emphasized, the profile of a leader as a politician should reveal a balance between competencies such as listening and negotiating (i.e. Achieving Styles/Connective Leadership Model: the Instrumental set), as well as controlling and directing (i.e. the Direct set).

More than a decade ago organizational scholars and practitioners have argued that organizations can legitimately be viewed as *political arenas* in which coalition building, conflict resolution, and interpersonal influence leads to obtain success (Mintzberg, 1985; Ferris *et al.*, 2000). The present study recognizes the growing importance of political action as a key element of leadership needed today. Furthermore, our study argues that both Bulgarian and Finnish members of Parliament call on relationships to accomplish their goals. However, MPs in a transitional society are not so prone to reveal the intensive use of various contacts, whereas MPs in a knowledge-driven society tend to view utilizing relationships as legitimate way of working, or as a proxy of resources, which makes the attainment of individual and organizational goals easier through elite institutional ties and social networks. Although it is a small-scale and preliminary contribution, it sheds a new light on organizational politics and networking as a means to achieve goals in different socio-economic settings.

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STATE, FIRMS, AND CORPORATE IMPACT: CASH OR CONTROL

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1. INTRODUCTION AND MOTIVATION

Privatization schemes in many European emerging economies involved creation of a special government agency that assumed role of an owner as well as administrator of the state property. The property remained for extended period in hands of state even after privatization schemes were completed. This development has been documented for the Czech Republic in an early study by Kočenda (1999). Numerous ownership involvements of state led frequently to interlocked network of ownership structures that resemble corporate pyramids. As a paradox, often the state remained an ultimate owner within such pyramid long after the privatization was concluded. In this paper we uncover, for the first time in the literature, dynamics of changes in ownership structure, values of state stakes, effects of indirect ownership, and corporate impact on the Czech economy.

2. PRIVATIZATION AND STATE OWNERSHIP

2.1. Privatization scheme

The massive privatization program was administered in the Czech Republic in the first half of the 1990s under three different schemes: restitution, small-scale privatization, and large-scale privatization. The first two schemes began in 1990 and were most important during the early years of the transition. Large-scale privatization, by far the most important scheme, began in 1991, was completed in early 1995, and allowed for various privatization techniques.[1] Small firms were usually auctioned or sold in tenders. Many medium-sized businesses were sold in tenders or to predetermined buyers in direct sales. Most large and many medium-sized firms were transformed into joint stock companies and their shares were distributed through voucher privatization (almost one-half of the total number of all shares of all joint stock

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[1] The privatization process has been extensively described and analyzed. See e.g., Kotrba (1995); Valbonesi (1995); Hanousek and Kroch (1998); Kočenda (1999); and Filer and Hanousek (2001), among others.

companies was privatized in the voucher scheme), sold in public auctions or to strategic partners, or transferred to municipalities.

The voucher scheme was part of the large-scale privatization process. Two waves of voucher privatization took place in 1992–93 and 1993–94, respectively.[2] Both waves were administered in the same manner and there were no differences in their set-up. During the scheme, a total of 1664 firms were privatized: 988 in the first wave, and 676 firms in the second wave.[3] All Czech citizens over the age of 18 who resided in the Czech Republic[4] could participate in the voucher process. For each wave every eligible citizen was authorized to buy a voucher book that contained 1000 investment "points" for 1000 crowns (about a week's wage). Before the privatization started, individuals had the option of assigning none, some, or all of their points to Privatization Investment Funds (PIFs): newly established financial firms vaguely similar in their scope of activities to closed-end mutual funds.[5] As a summary Table 1 shows the two-wave process of voucher privatization translated into major numbers that provide its rough sketch.

Table 1. Brief Overview of Voucher Privatization Scheme

Subject	Wave 1	Wave 2
No. of State Enterprises Entering the Voucher Scheme	988	861
Book Value of Shares Allocated for Voucher in Particular Wave (billions of crowns)	212.5	155.0
Participating Citizens (in millions)	5.98	6.16
Average Accounting Value of Assets per Participating Citizen (crowns)	35,535	25,160
% of Voucher Points with IPFs	72.2%	63.5%

Source: Kočenda (1999). Note: Second wave includes 185 firms not fully privatized in the first wave.

2.1. State as owner

At the beginning it was the Ministry of Privatization that executed the privatization process. The privatization authorities had rough goals regarding how much property they wanted to include in the voucher program, hence, how much of the control should stay with the state. To administer the property that remained in state's possession, the National Property Fund (NPF) was established as a state institution that was entitled with legal power to exercise property rights over the companies that were fully or partially owned by the state. By the end of the

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[2] Privatization of each state–owned firm was decided on the basis of an officially accepted privatization project. According to the law, all state–owned enterprises were selected for either the first or the second privatization wave, or they were temporarily exempted. Each selected firm had to submit an official privatization proposal that was usually crafted by the firm's management under the tutelage (and responsibility) of its sectoral ministry. Any domestic or foreign corporate body or individual was allowed to present a competing project that was to be considered on an equal footing as the official one.

[3] 185 firms were privatized in both waves in various proportions of their assets.

[4] For the first wave in the Slovak Republic, as well, since only in 1993 was Czechoslovakia split into two independent nations: the Czech and Slovak Republics.

[5] The regulation of IPFs evolved gradually through Decree no. 383/1991, its Amendment No. 62/1992, and Act No. 248/1992. The most important clauses restricted each privatization fund from investing more than 10% of points acquired in the voucher scheme in a single company and obtaining in exchange more than 20% of shares in any company. Privatization funds established by a single founder were allowed to accumulate up to 40% of shares in a given company, but this cap was later reduced to 20%. Many privatization funds circumvented the cap through mergers. The Act also prohibited IPFs founded by financial institutions from purchasing shares of other financial institutions to prevent excessive concentration of financial capital (for details see Kotrba and Svejnar, 1994).

scheme in 1994 the NPF held on average about 25% stake in privatized firms but the extent varied greatly.[6] The NPF was dissolved at the end of 2005 and remaining property was transferred to the specially established office with limited autonomy and scope of activities to keep state's interests.

3. DATA

We have assembled a large data set on extent of ownership in a large sample of the Czech firms over the period 1994-2005. The beginning of our data ample coincides with the end of the privatization schemes, e.g. the starting point from which such data is meaningful and available. The end of our sample coincides with the end of the NPF as an institution. The data come from the achieves of the former Ministry for Privatization, National Property Fund, Prague Stock Exchange, Center for Securities in Prague, commercial database Aspekt, and the Commercial Register of the Czech Republic.

In our data we are able to distinguish specific extent of ownership held by state as well as other subjects. In this respect, first, we are able to trace developments of state control in a number of firms over time. Second, we are also able to identify cross-ownership links among various subjects, hence, to identify full extent of the state control that can be exerted on seemingly uncontrolled units.

4. PERSISTENCY OF STATE OWNERSHIP AND EXTENT OF CONTROL

4.1. Direct control

The National Property Fund (NPF), as a legal owner, was involved in different degree in a vast number of companies. Such degree was represented by the number of shares the state held in each company that belonged to the portfolio of the NPF. An illustrative perception of such an arrangement can be extracted from Table 2 (Total Number of Firms in the NPF Portfolio) that presents total numbers of firms from the NPF portfolio along with the division of proportional stakes. In the division of stakes that allow for effective control we follow Hanousek, Kočenda, and Svejnar (2007). According to their taxonomy, depending on the extent of a stake, different blockholders have under the Czech law different opportunities to influence corporate governance. In particular, the law provides important rights of ownership and control to owners with majority ownership (more than 50 percent of shares), blocking minority ownership (more than 33 percent but not more than 50 percent of shares) and legal minority ownership (at least 10 but not more than 33 percent of shares).

Majority ownership grants the owner the right to staff management and supervisory boards, alter and transfer firms' assets and make crucial strategic decisions at general shareholders' meetings. Through management and supervisory boards, majority ownership also facilitates more direct executive control of the company. The blocking minority ownership gives the right to block a number of decisions, such as those related to increasing or reducing assets and implementing major changes in business activities that the majority shareholder may strive to

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[6] Despite the massive scale of the voucher privatization, by 1998 there still remained a substantial number of companies where the state was involved. Altogether 1849 companies of a book value of 367.5 billions entered both waves of voucher privatization. In 1998 the state kept its involvement in 369 companies with the overall book value of more than 440 billions crowns. The book value of the state share in these companies amounted to almost 177 billions crowns (Kočenda, 1999).

implement at the general shareholders' meeting. Finally, legal minority ownership is potentially important because the law entitles the holder of this stake to call the general shareholders' meeting and obstruct its decisions by delaying their implementation through lengthy court proceedings. Effective legal minority shareholders, including the state, may thus use their ownership position to delay or completely block the implementation of decisions by stronger shareholder(s).

Evidence in Table 2 shows that since 1995 the number of firms in the NPF portfolio has been decreasing in general. On other hand state has strengthened its positions as the number of firms with the full state control increased after 1996. Even better perspective of the process is provided in Table 3 (Relative Number of Firms in the NPF Portfolio) that translates evidence in absolute terms (Table 2) into relative proportions. Several important observations can be made. State has been continuously increasing its dispersed ownership participation in the firms where it held less than 10% stake which did not allow for effective control through standard shareholder's channels. This increase has happened on account of reduced control in firms where state held more that 10% but less than 50% stakes. Most importantly, state has maintained relatively stable proportion of firms where the sheer majority of more than 50% stake allowed for effective direct control. Finally, after 1996 state dramatically increased its share of firms with complete control and ownership (100%) and kept it relatively stable until the end of the NPF existence.

Table 2. Total Number of Firms in the NPF Portfolio

Year	TOTAL	<10%	>=10% and <33%	>=33% and <50%	>=50% and <100%	100%
1994	990	416	376	100	79	19
1995	1048	582	246	99	101	20
1996	760	426	183	69	64	18
1997	527	284	108	50	41	44
1998	351	214	46	35	24	32
1999	293	183	29	29	27	25
2000	264	165	21	27	25	26
2001	235	157	16	25	18	19
2002	190	133	12	15	17	13
2003	164	116	14	9	12	13
2004	137	93	14	5	10	15
2005	109	75	11	5	9	9

Table 3. Relative Number of Firms in the NPF Portfolio

Year	TOTAL	<10%	>=10% and <33%	>=33% and <50%	>=50% and <100%	100%
1994	990	42%	38%	10%	8%	2%
1995	1048	56%	23%	9%	10%	2%
1996	760	56%	24%	9%	8%	2%
1997	527	54%	20%	9%	8%	8%
1998	351	61%	13%	10%	7%	9%
1999	293	62%	10%	10%	9%	9%
2000	264	63%	8%	10%	9%	10%
2001	235	67%	7%	11%	8%	8%
2002	190	70%	6%	8%	9%	7%
2003	164	71%	9%	5%	7%	8%
2004	137	68%	10%	4%	7%	11%
2005	109	69%	10%	5%	8%	8%

One can observe that the enterprises in which the state kept more than fifty percents of shares represent only a relatively small part of all firms; namely 10 to 19% of all firms in the NPF portfolio, depending on a specific year. From this perspective the extent of the state control does not seem to be large. However, such an assessment would be too simple for such a complicated matter which the ownership structure of the state represents. Therefore, Tables 4 (Absolute Book Value of Firms in the NPF Portfolio) and 5 (Relative Book Value of Firms in the NPF Portfolio) take into account a book value of each firm into analysis of state control extent. Book value of the firm can be considered as a proxy for the size of each firm in the NPF portfolio. Hence, it allows inferring an extent of control over the large and important firms in the economy. This enables to derive perception of an economic power of the companies and consequently the extent of wealth that is controlled by the state through the direct ownership channels, e.g. via amount of shares. Evidence in both Tables seriously undermines the former observation about the direct control of the state.

From Table 4 it is evident that the state kept tight control over the largest and most important firms. Absolute book value of the firms where state kept more than 50% stake is larger than the number of firms in any other category for any given year with the single exception of 1995 and 1996. The reason behind this finding is that the early post-privatization ownership structure emerged as shares from the second wave were distributed in early 1995 and rapid reallocation of shares across new owners took place in 1995-96 during the so-called "third wave" of privatization as new owners, including the privatization funds and state, reshaped their initial post-privatization portfolios of acquired companies. Depending on the investor, the swapping of shares in 1995-96 was aimed at (a) portfolio diversification, (b) obtaining concentrated ownership in specific firms and industries and (c) achieving conformity with legal requirements aimed at preventing excessive stakes being held by privatization funds. The 1995-96 ownership changes were massive, unregulated and frequently unobservable to outsiders, including researchers. Investors, especially the PIFs, engaged in direct swaps of large blocks of shares, and off-market share trading was common. More stable and more meaningful patterns of ownership emerged in 1996 (Hanousek, Kočenda, and Svejnar, 2007). Further, absolute book value of firms with clear state majority has decreased only very slowly, from 141 in 1996 to 110 in 2004. Also, the state kept relatively stable portfolio of firms with 100% control and even increased its positions (for example buying back the privatized stake in a national air carrier). In categories of the legal and blocking minority the state has been decreasing its stakes in general to which corresponds decreasing book value as well.

Table 4. Absolute Book Value of Firms in the NPF Portfolio (in bill. CZK)

Year	TOTAL	<10%	>=10% and <33%	>=33% and <50%	>=50% and <100%	100%
1994	353	104	101	33	115	1
1995	579	224	72	71	206	7
1996	490	181	71	92	141	6
1997	408	121	38	105	138	7
1998	350	98	12	101	133	6
1999	330	94	10	79	141	5
2000	315	88	8	75	138	5
2001	289	69	8	72	131	9
2002	270	66	5	52	141	5
2003	229	56	23	35	111	5
2004	185	52	15	0	110	8
2005	136	49	14	0	68	5

Again, the analysis would be incomplete without inspecting developments of the control over the firms' assets in proportions over time. Table 5 presents the evidence where the *relative book value* of firms in each category of direct control is considered as a proportion to the total for a given year. Similarly to the previous findings, the extensive direct control by the state is confirmed. Further, the relative control increases: as the portfolio reduces in absolute terms, the state control over the assets in firms increases. The reason is that state kept the largest and most important firms under its direct control for the entire period of economic transformation. Correlation between the size of a firm and the amount of taxes and dividends paid is very high. In terms of book value, in 2004 the state, via the stake of 50% and more, directly controlled assets of 118 bill. CZK out of its total 185 bill. CZK portfolio. In relative terms this represents ability of the state to directly control 63% of assets in the NPF portfolio. One cannot but to conclude that, despite the voucher privatization, the state sustained its influence over the significant part of the Czech economy.

Table 5. Relative Book Value of Firms in the NPF Portfolio (in bill. CZK)

Year	TOTAL	<10%	>=10% and <33%	>=33% and <50%	>=50% and <100%	100%
1994	353	29%	29%	9%	32%	0%
1995	579	39%	12%	12%	36%	1%
1996	490	37%	15%	19%	29%	1%
1997	408	30%	9%	26%	34%	2%
1998	350	28%	4%	29%	38%	2%
1999	330	29%	3%	24%	43%	2%
2000	315	28%	3%	24%	44%	2%
2001	289	24%	3%	25%	45%	3%
2002	270	24%	2%	19%	52%	2%
2003	229	25%	10%	15%	48%	2%
2004	185	28%	8%	0%	59%	4%
2005	136	36%	10%	0%	50%	4%

4.2. Indirect control

The state control in a firm may be exercised by various means. The simplest extent of control was described in the preceding section. It is control through the number of shares held by the state that represent associated voting rights. Other mean is embodied in a "golden" share.[7] Such an instrument, in a form of a single share with a special status, allows the state to prevent any major changes in a company where the state holds such a share.[8] Utility

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[7] The golden share was introduced by Act No. 210/1993, modifying Act No. 92/1991. The act set the conditions for property transfer from the state to others with the aim of protecting special interests of the state in firms privatized in large-scale privatization. The veto rights associated with the golden share usually relate to the scope and line of business activity and depend on each company's charter. When the state sells its golden share, it gives up its rights in the company and the golden share ceases to exist. The instrument of the golden share in the Czech Republic does not conform fully to that found in other countries since it is limited to being solely an instrument of state control and does not serve as a means of attracting free or less expensive credit.

[8] The fact that the state uses a golden share as an instrument of control is not isolated to emerging markets only. Telefonica, the former telecommunications public monopoly in Spain, was totally transferred to the private sector in 1997, after the State sold its last stake in the company. However, a political mechanism of control was in place after privatization, in particular via the golden share. Some deals that would have been positive for shareholders were not completed, and some of the deals that were completed had a negative effect on shareholder value. The operation of the different potential managerial disciplining devices in Telefonica was not optimal. No strategic private block-holder exercised true authority in the company in the period under study. The government's golden share made takeovers impossible and takeover threats ineffective (Bel and Trillas, 2005).

companies are a typical example of the state control through the golden share but not exclusive one as golden share has been part of the ownership structure in many industrial companies as well. Further, a number of companies were declared as strategic firms and enjoyed a special status that was embedded in related legal provisions. Similarly to the golden share instrument, in legally declared strategic firms the state was able to exercise greater control than would correspond to its ownership rights derived from the extent of its share holdings. Finally, in some companies the two instruments of indirect control were combined.

The indirect state control in firms via the instruments described above is summarized in Tables 6 and 7. In absolute terms the state has only a minor scope of exerting control through these indirect means as hundred of firms in its portfolio were without either the golden share or strategic classification. In relative terms, the proportion of firms with golden share has been increasing on the account of standard firms as the proportion of the strategic firms was quite stable.

Table 6. Total Number of Strategic Firms in the NPF Portfolio

Year	TOTAL	gold	strategic	gold&strategic	standard
1994	990				990
1995	1048				1048
1996	760				760
1997	527	77	23	19	408
1998	351	75	21	19	236
1999	293	72	19	19	183
2000	264	68	17	19	160
2001	235	44	15	19	157
2002	190	37	13	8	132
2003	164	37	9	1	117
2004	137	34	8	0	95
2005	109	34	5	0	70

Table 7. Relative Number of Strategic Firms in the NPF Portfolio

Year	TOTAL	gold	strategic	gold&strategic	standard
1994	990				100%
1995	1048				100%
1996	760				100%
1997	527	15%	4%	4%	77%
1998	351	21%	6%	5%	67%
1999	293	25%	6%	6%	62%
2000	264	26%	6%	7%	61%
2001	235	19%	6%	8%	67%
2002	190	19%	7%	4%	69%
2003	164	23%	5%	1%	71%
2004	137	25%	6%	0%	69%
2005	109	31%	5%	0%	64%

The indirect state control of the firms' assets changes the perspective considerably. Evidence in Tables 8 and 9 shows startlingly extensive control of the state. Depending on a year, the amount of assets controlled via indirect instruments is two or even more than three times larger than amount of assets of the firms without such control. Again, as the golden share or strategic classification was associated with companies vital to the economy, their

independence on the state did not fully reflect reality. Despite being privatized, the firms and their assets were part of the public economy.

Table 8. Absolute Book Value of Strategic Firms in the NPF Portfolio (in bill. CZK)

Year	TOTAL	gold	strategic	gold&strategic	standard
1994	353				353
1995	579				579
1996	490				490
1997	408	37	177	57	138
1998	350	36	175	56	83
1999	330	34	165	56	75
2000	315	22	158	56	78
2001	289	18	151	56	64
2002	270	19	145	43	62
2003	229	19	118	24	69
2004	185	17	107	0	61
2005	136	17	65	0	53

Table 9. Relative Book Value of Strategic Firms in the NPF Portfolio (in bill. CZK)

Year	TOTAL	gold	strategic	gold&strategic	standard
1994	353				100%
1995	579				100%
1996	490				100%
1997	571	9%	43%	14%	34%
1998	513	10%	50%	16%	24%
1999	493	10%	50%	17%	23%
2000	478	7%	50%	18%	25%
2001	452	6%	52%	19%	22%
2002	433	7%	54%	16%	23%
2003	393	8%	51%	10%	30%
2004	348	9%	58%	0%	33%
2005	136	13%	48%	0%	39%

4.3. Combined control

In order to evaluate an effective control power of the state over the companies we combined all feasible means of control together. Figures 1 and 2 illustrate the developments of the control potential through the direct control (extent of ownership stake and associated voting rights) together with the indirect control (golden share and strategic firm classification). Again we show the extent of the control potential in terms of firms (Figure 1) as well as the amount of assets these firms represent (Figure 2).

In terms of firms, the evidence is in line with the previous findings. There is an increase in the number of firms under the control immediately after the end of the privatization process. At its peak nearly 90% of the firms in the NPF portfolio are under effective control potential of the state. The extent decreases slowly and only after 2002 the number of firms within the state control potential decreases faster. Still, in terms of the portfolio proportions the relative number of firms under control remains stable. Similar pattern is visible when control potential is assessed in terms of assets of the firms in the NPF portfolio.
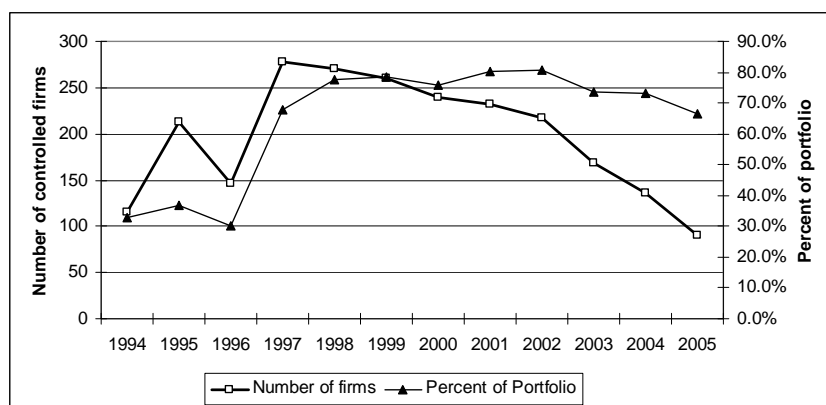
Figure 1.   Combined Contol Potential: Total and Relative Number of Firms in the NPF Portfolio.
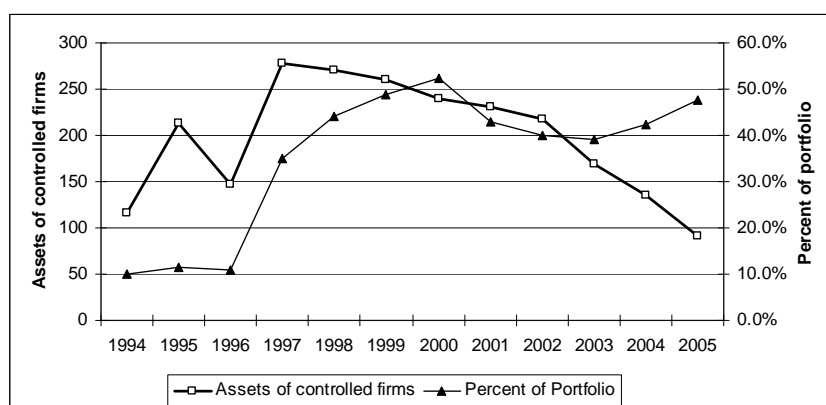
Figure 2.   Combined Control Potential: Absolute and Relative Book Value of Firms in the NPF Portfolio (in bill. CZK).

Both measures decrease over time, but their magnitudes document that medium and large companies privatized in the early 1990's remained under the control potential of the state longer than might be expected. As the Czech economy has been continuously growing since 1993 with the exception of 1997 the state control potential might be underestimated. Further, specifically for the Czech privatized firms Hanousek, Kočenda, and Svejnar (2007) have documented that many types of private owners do not generate performance that is different from that of firms with state ownership. Despite of this, in terms of privatized medium and large firms a private economy was shown to be a mere illusion during the period under research.

5. CROSS-OWNERSHIP A.K.A. PYRAMIDS

Ownership structures in which control is maintained through indirect ownership are quite common as documented by La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1999) and discussed by Bertrand and Mullainathan (2002). Example of an indirect ownership is a case when the ultimate owner may own firm A, which in turn owns firm B, which in turn owns firm C, etc. The resulting ownership structures are called pyramids. There are two most plausible reasons for emergence of pyramids. First, a pyramid creates separation of control from ownership that helps a controlling owner to enjoy private benefits that may include

expropriating wealth from minority shareholders. Second, a pyramidal structure facilitates the control of multiple corporations and the cross-subsidization of funds among affiliated firms. Pyramids were studied in Asia (Claessens, Djankov, and Lang, 2000; Bertrand, Mehta, and Mullainathan, 2002) as well as in Europe. In the latter case Faccio and Lang (2007) show that state ownership has decreased dramatically in Europe after the privatization wave of the 1990s. Still, in some continental European countries, the state controls a significant number of larger firms, for example more than 10 percent of the listed firms in Austria, Finland, Italy, and Norway.

The existence of pyramids related to state ownership in Europe has important implications with respect to our research. The state control of various types of firms, documented in preceding section, may produce different degree of cross-ownership. The reason is the existence of banks with state control and number of privatization funds that were established by banks and other financial institutions. To understand the issue, let us consider the following example: state owns a share in a company C and a share in bank B; bank B owns a share in company C and a share in privatization fund F that was established by bank B; fund F owns a share in company C. Thus, state has a direct (primary) ownership in a company C in the extent of its share, but it also has a secondary ownership in a company C through its share in bank B, and also tertiary ownership through bank B and subsequently fund F. Clearly, the control potential of state over the company C may be greater than would a primary ownership structure suggest.

The privatization funds formed a popular form of how the citizens allocated their points from the large privatization. For these points the funds acquired shares in numerous companies, where the state also kept its share. At the same moment it has to be noted that a number of these funds was formed by financial institution where the state has kept its large share. Thus the funds became elements in pyramids but also involuntarily became to a certain extent institutional managers of the residual state property.[9]

The question of how to evaluate the extent of the control that stems from cross-ownership is not easy to address. Turnovec (1999) suggested new methodological approach, which can provide some insight in the real property rights in an enterprise with cross-ownership interests. The technique was designed to unveil the indirect ownership that is usually hidden behind the scene, on which the 'actors'—seemingly unrelated owners—perform.
The matrix-algebra based technique proposed by Turnovec (1999) is briefly introduced here. Suppose there is m primary owners and n secondary owners. Primary owners can be citizens, the state, municipalities, etc. and they can own, but cannot be owned. Secondary owners are companies that can be owned. Let s_{ji}^0 denote the direct share that the primary owner i ($i=1$, …,m) has in the secondary owner j ($j=1,…,n$), expressed as the proportion of the total number of j's shares. Similarly, let t_{jk}^0, $j,k \in \{1,…n\}$, denote the direct share of the secondary owner k in another secondary owner j. Let us label the matrix

$$\mathbf{S}^0 = (s_{ji}^0)_{\substack{i=1,…,m \\ j=1,..,n}}$$

as *the primary property distribution matrix* and matrix

$$\mathbf{T}^0 = (t_{ji}^0)_{\substack{i=1,…,m \\ j=1,..,n}}$$

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[9] Issues related to the corporate governance of the privatization funds in the Czech Republic are discussed in detail by Kotrba, Kočenda, and Hanousek (1999).

as *the secondary property distribution matrix*. The couple $\{\mathbf{S}^0, \mathbf{T}^0\}$ then represents an primary property distribution in the economy. If follows from the definition of $\mathbf{S}^0$ and $\mathbf{T}^0$ that for any $j=1,\ldots,n$ it must be that

$$\sum_{i=1}^{m} s_{ji}^0 + \sum_{k=1}^{n} t_{jk}^0 = 1.$$

Expressing the same in matrix form yields

$$\mathbf{S}^0\mathbf{e}_m + \mathbf{T}^0\mathbf{e}_n = \mathbf{e}_n,$$

where $\mathbf{e_n}$ denotes the *n*-dimensional vector of composed of 1's.

Let us assume that $\mathbf{T}^0 \neq \mathbf{0}_{nn}$, where by $\mathbf{0}_{nn}$ we mean $n \times n$ zero matrix (if $\mathbf{T}^0 = \mathbf{0}_{nn}$ we have a transparent ownership structure that deserves little theoretical interest). Then the real share of *i*'s primary owner in company *j* is given not only by *i*'s direct ownership (s_{ji}^0), but also by the shares *i* holds in the other owners of *j*, namely, in other companies $k0\{1,\ldots n\}$, $k \neq j$. Thus the "first degree" ownership of the primary owner *i* in the secondary owner *j* can be defined in the following manner

$$s_{ij}^1 = s_{ji}^0 + \sum_{k=1}^{n} t_{jk}^0 s_{ki}^0.$$

Analogously, one can express the "first degree" ownership of secondary owner *k* in another secondary owner *j*

$$t_{jk}^1 = \sum_{l=1}^{n} t_{jl}^0 t_{lk}^0.$$

In matrix form this can be expressed as $\mathbf{S}^1 = \mathbf{S}^0 + \mathbf{T}^0\mathbf{S}^0$ and $\mathbf{T}^1 = \mathbf{T}^0\mathbf{T}^0$. Exploiting further the suggested notion of "gradual" ownership, the following is definition of the "r-th degree" ownership

$$\mathbf{S}^r = \mathbf{S}^{r-1} + \mathbf{T}^{r-1}\mathbf{S}^{r-1}, \text{ and}$$

$$\mathbf{T}^r = \mathbf{T}^{r-1}\mathbf{T}^{r-1}.$$

The defined methodology will be used to assess the indirect ownership as well as resulting control potential of the state. We will use this application with the privatized and publicly traded Czech firms. Results are not available yet. They will be presented at the conference.

6. CONCLUSIONS

We have analyzed extent of the control potential of the state in the Czech firms privatized in the mass privatization scheme. The property remained for extended period in hands of state even after privatization scheme was completed and the National Property Fund (NPF) was set up as a special agency to protect economic interests of the state. More than a decade of the data allows us to explore the behavior of the state in its position of an important owner and co-owner.

The state control in a firm may be exercised by various means. The simplest extent of control through the number of shares held by the state that represent associated voting rights. Other mean is embodied in a "golden" share. Such an instrument, in a form of a single share with a

special status, allows the state to prevent any major changes in a company where the state holds such a share. Further, a number of companies were declared as strategic firms and enjoyed a special status that was embedded in related legal provisions. Similarly to the golden share instrument, in legally declared strategic firms the state was able to exercise greater control than would correspond to its ownership rights derived from the extent of its share holdings. Finally, in some companies the two instruments of indirect control were combined. All feasible means of control combined together allow to evaluate an effective control power of the state over the companies At its peak nearly 90% of the firms in the NPF portfolio were under effective control potential of the state. The extent decreases slowly and only after 2002 the number of firms within the state control potential decreases faster. When we consider the amount of assets within the state control potential the picture is similar. Overall, we identified important aspects of the role of state that has not been researched before. In terms of privatized medium and large firms, a private economy was shown to be a mere illusion during the period under research.

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THE PECULIARITY OF INNOVATION ACTIVITY IN UKRAINE

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Mechanism stimulation, venture capital

1. INNOVATION TYPE OF DEVELOPMENT IN THE CONDITIONS OF TRANSITIVE ECONOMY

1.1. Innovation stage in an economic transformation strategy

During the last decades the world economy, especially economy of the developed countries, was entering the radical structural transformation, which was caused by the rapid increasing in significance of science intensive and high technological productions, development of which was mostly determined by the intensive knowledge utilization and massive implementation of the innovations into the economic and social life. As a result we can observe the foundation of such called ***knowledge based economy***. All this actualize the question of innovative activity, which, as we have found out, is basically the main condition of building an effective economy, competitive on the world market. Hence indisputable is the necessity of transformation the Ukrainian economy into the economy, based on the innovative model of development.

The forming of national competitiveness depends on an innovation activity in the country. Ukrainian development strategy in the transitive conditions supposes structural reconstruction of industry, innovation activity development and statement as high-tech country. The reason of this ride is in the great Ukrainian opportunities for economy development in scientific and technical field that it had on the beginning of market transformation. In the number of scientific orientations as a material science, a theoretic physics, a mathematic, a welding engineering, biotechnology Ukraine still occupies leading positions in the world.

National innovation policy determines competitiveness and leads to strategic changes both in domestic and foreign policy. These changes are followed by managerial decisions which react on quick movements on the outside environment and market needs because of the scientific-technical progress. Scientific-technical progress demands revision of national innovation

policy, namely: to put new ideas in it, to define target reference-points on the basis of marketing, to develop long-term innovation strategy and to determine competitive advantages of the priority branches.

The theory of innovation development was formed in the middle of the XX th century. The conceptual approach to the innovation theory was carried out by J. Schumpeter. He considered the innovation to be the change of the production technology and to have the essential meaning and importance.

The analysis of the latest achievements and published materials on the problem of innovation activities proves that there are not enough conditions in Ukraine to create the model of innovation policy, although there are all the elements to do it. Taking into account all this, the formation of innovation model for Ukraine under the condition of economic development is urgent.

However, there is a lack of fundamental methodological works in modern literature on economics that view the innovation model as an integral part of the economic improvement in Ukraine.

Concept the "innovation" occurring from English invention, it is accepted to define the new technology, a new method as new idea which during development can be realized in the new product. Concept "innovation", in English innovation, it is necessary to understand as the new either advanced product or the technology created as a result of use of an innovation and sold in the market or introduced in industrial, administrative or other activity

Innovation is an idea, commodity or technology which are inculcated in industry and presented on market, and customers perceive them as new or with unique qualities. New qualities, which are first realized in some commodity or technology and represented at the market. Law of Ukraine „About innovative activity" interprets the innovations as „accrued (applied) and (or) improved competitive technologies, products or services, and also organizationally-technical decisions of production, administrative, commercial or other character, that substantially improve a structure and quality of production and (or) social sphere".

Innovative activity is the process directed on realization of results of complete scientific researches and developments or other scientific and technical achievements in new or improved product, that will be realized at the market, in new or improved technological process, that is used in practical activity, and also related to it additional researches and developments. Innovative activity is an innovative process, which begins from appearance of scientific and technical idea and completing by distribution (diffusion) of product.

The innovations include an economic subsystem:

- Industries, which carry out the innovation;
- Industries, which diffuse a new technology and deepen its economic advantages;
- Industries, which arise up in development investigation of a new technological style.

Practically, the innovation is the change of production technology, which directly influences on production factors productivity and method of their combination, and also, provides modification of production function. On determination, the innovation in the socio-economic system is a high-quality effective method use of resources. Consequently, even for saving of present disposition of production factors takes place the increase of production volumes.

Thus, the public effect of innovation consists in that they:

- growth acceleration of production factors productivity is carried out;
- growth acceleration of production volumes is provided;
- accelerate structural changes;
- improve a national competitiveness.

Consequently, from our point of view, innovation development can be described as process of structural perfection of national economy, which is achieved mainly due to the practical use of new knowledge for growth of public production volumes, upgrading public product, strengthening of national competitiveness and acceleration of social progress in society.

From the higher resulted determination follows, that stimulation of innovation development can not be limited only with point stimulation of the chosen themes of researches or developments, and has to be directed on creation of terms for the mass search of effective ways of technological changes and rapid support of positive finds. Main task of the government innovation policy are providing of the balanced co-operation of scientific, technical and production potentials, development and introduction of business innovative activity activation mechanism, distribution of innovations entities on all spheres of national economy.

The object of innovation policy can be not only and not so much separated scientific or production enterprises but also stability of their intercommunication, system of co-operations in the process of innovations creation. Experience of the USA, countries of Western Europe showed that at the intensive mastering of innovations most participants of innovative cycle mostly are in the relations of organizational cognation. For example, within the framework of multinational corporation in the West. Consequently, the necessity of purposeful, process control system, concerted co-operation of research workers and specialists of different fields of knowledge for the search and development of necessary technological processes, determination of optimum office, and creation of equipment hours are increasing. Exactly in the process of large innovation projects management were created the programmatic-having a special purpose methods of rule spread.

In a political economy context the necessity of the purposeful state adjusting and stimulation of innovation processes is explained through conception of market relations. Because innovation is the transmitter of the synergy effect, the consequences of its realization are consumed not only by its direct performer, but by all members of society. The task of state innovation policy consists in providing the internationalization — compensates to creators an effect, which the innovations carry out for the whole society. Such indemnification can acquire as direct grant of financial resources through the system of the favorable crediting, taxation, custom levying, grants and others, and indirect — through the grant fully or partly of free services in infrastructural, informative, legal and other spheres
For supporting of innovation activity there are instruments by which the state will realize necessary functions in this sphere. It can be:

- direct sponsorship of innovative processes;
- fiscal privileges for creators;
- politic and economic instruments;
- economic support;
- Infrastructural instruments.

Introduction of innovative type of growing is principle important for providing the national competitiveness of постсоціалістичних countries, which economic is characterized by considerable specific gravity of out-of-date productions. Especially relief this necessity looks in light of motion of the European постсоціалістичних countries to the EU entry. Lag in modernization national production structure threatens by canning of these countries in a role of European periphery and loss, in the end, their national identity, their economic decomposition and positioning as object in the world division of labor. Renewal of the economy growing without activation of his innovative constituent conducts in a transitional economy, which is characterized considerable lack of resources, to the gradual backlogs exhausting of extensive growth and threat growth of economic depression. Maximal realization of synergy effect of innovative development seems uniquely possible method of realization the task of making up of the technological and economic tearing off the developed countries of world, which are the must for all without the exception post social countries.

The afore-mentioned stipulates considerable attention, which is spared lately introduction of innovative model of development in Ukraine.

2. THE BASIC DIRECTIONS OF INNOVATIVE DEVELOPMENT OF ECONOMY OF UKRAINE

2.1. The present situation of national economy in Ukraine

Innovation activity in Ukraine is one of the key factors in competitive battle. Local industrial enterprises still use old-fashioned technology, which leads to the production of uncompetitive industrial products importing mostly raw materials and sub products.

According to the State Statistics Body of Ukraine three quarters enterprises of those that carried out innovations in 2005 enlarged the variety of products; 60% kept and expanded their traditional markets; and every third enterprise improved the flexibility of production, production resources and labor conditions. Every second industrial enterprise built new markets; about 30% - abroad. 28, 9% enterprises that are oriented on the innovation, introduction of new ideas had results in the reduction of environment pollution; 23,4% performed in cutting power expenditures; 19,5% reduced their material costs .

The most attractive direction in innovation activity for national enterprises is the production of innovation goods; this is followed by implementing new technological processes. If we analyzed the innovation activities in different industrial branches in 2005, we will notice that the most active in innovation sphere were the enterprises producing coke and oil refining products, the enterprises in chemical industry, machine-building, metallurgy and metal processing. Big enterprises (25%) were the most active. In all industrial enterprises of Ukraine innovation activities were carried out mostly by mean of their own funds. (fig.1)
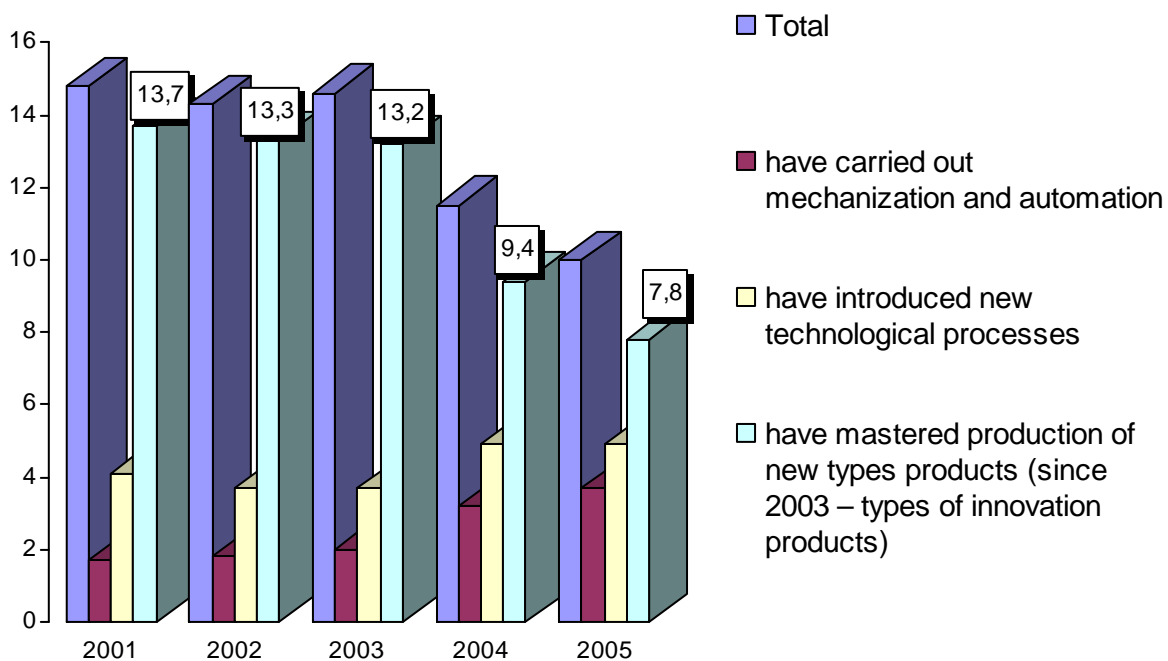
Figure 1.   Innovation activity of industrial enterprises of Ukraine.

Source: *Stat. collected articles. 2005*

Of all the number of Ukrainian enterprises (9920) there is small amount of realized innovative products. For example, in 2005 more than 500 industrial enterprises had 1% to 10% realized innovative products of all produced.

Investing in innovations, society pawns bases of long-term strategy of formation of internal roar of the goods of consumer and industrial assignment.
Ukraine started processes of economic transformation, having as a whole the ramified sphere of researches and development, significant experience of development of innovations, in particular in sphere of power and electrification, manufacture of some kinds of arms, some other areas. At the same time, the technological level of base areas of manufacture - coal, ferrous metallurgy, food many areas of mechanical engineering (for example, an agricultural production of the equipment for the food-processing industry, the road and transport equipment, instrument making) is obsolete. Manufacture, as a whole was characterized by high use of energy and materials, as well as significant hand-worked application. More and more appreciable became backlogs of Ukraine, in automation of manufacture and management. Thus, the question innovational development, acceleration of scientific and technical progress was considered as actual.

The conducted analysis of present position of scientific-and-engineering and innovative spheres in Ukraine shows that innovative activity level, level of scientific-and-engineering production, the amount of investments, made into science, development of innovative entrepreneurship infrastructure in Ukraine lags behind from the present activities in the developed countries. There is a significant discrepancy between the scientific-and-engineering

potential of Ukraine and the total productivity of national economy, which is caused by the low effectiveness of national innovative system.

According to the main figures of innovative economy, Ukraine lags far behind the developed and similar countries. Comparatively low are Indexes of national economy competitiveness and country's readiness for the functioning in global networks, unsatisfied are the share of science intensive production in country's export and the share of national science intensive products in the world structure. The profitability of national science intensive products is also very low.

The figures, mentioned above, testify that Ukraine has obtained the specialization of low technological products producer in the world market. This is the reason of inexpedient implementation of existing presuppositions for the foundation of science intensive kind of competition, necessary for technological brake in modern production.

2.2. Strategy of modernization of economy on the basis of innovational development

Significant backlog of Ukraine in social and economic and scientific and technical development not only from the advanced countries of the world, but also from the former states of " socialist camp " makes transition to innovational type of development by an indispensable condition of preservation of the economic and political sovereignty. The basis of a new strategic direction can be processing and realization of the state policy directed on creation necessary economic, institutional, scientific and technical and social preconditions of the statement of Ukraine as highly technological state, its belonging to the circle of highly technological countries of the world.

The main objective of an innovational state policy is creation of social and economic, organizational and legal conditions for effective reproduction, development and use of scientific and technical potential, maintenance of introduction of modern non-polluting, safe, energy kept technologies, manufacture and realization of new kinds of competitive production. The basic directions of an innovational policy resulted in (table 1.)

At the same time Ukraine keeps the chance to accomplish the transfer to the innovative model of economic development. In several branches of scientific researches and science intensive activities Ukraine managed to keep competitive positions. Development and successful implementation of mentioned possibilities fully depend on government support of science intensive branches of economy. The government has to choose the correct main vector of world integration of Ukraine in order to provide country's embodiment into world scientific cooperation in the important research and manufacturing projects.

Table 1. The basic direction of an innovation policy of state

The basic directions of an innovational policy	Orientation to an innovational way of development of economy of Ukraine
	Definitions of priorities of innovational development
	Formations of normative legal base in sphere of innovational activity
	Creation of conditions for maintenance, development and use of domestic scientific, technical and innovational potential
	Maintenance of interaction of a science, formation, manufacture, financial - credit spheres in development of innovational activity
	An effective utilization of market mechanisms for assistance of innovational activity, support of business in research-and-production sphere
	Realization of actions on support of the international scientific - technological cooperation, a transfer of technologies, protection of a domestic production in a home market and its promotions on a foreign market
	Financial support, realization of a favorable credit, tax and customs policy in sphere of innovational activity
	Assistance to development of an innovational infrastructure
	Supply with information of subjects of innovational activity
	Professional training in sphere of innovational activity

2.3. The mechanism of support of innovative activity

The modern condition of economy of Ukraine testifies that mechanisms of regulation of innovative activity of the enterprises insufficiently work. It is possible to carry to them: participants of innovative process: sources of financing; a state policy in the field of stimulation of innovations; creation an infrastructure of innovative activity. Among these factors the important place borrows functioning proprietors. Participants of process of innovative activity are: the large and average enterprises of the state pattern of ownership. The greatest innovative activity was characteristic for the enterprises of the foreign and joint property mixed and private patterns of ownership. . High innovative activity is characteristic

for the large enterprises (number from 5000 person) with a collective pattern of ownership. Among them more than 60 % of the enterprises carry out those or other innovations. The large enterprises have an opportunity to use turnaround means for realization of technological innovations, and they as rules have own scientific and design divisions The *state enterprises* are is better protected in conditions of existing political and social and economic instability, and, hence, can put more long-term objectives of the development which can be realized owing to innovative activity. They develop innovations and realize the received results in the market and bears economic risks. First of all it concerns production of a high technological level and the big complexity. Again created private enterprises have, as a rule, much a smaller innovative reserve. Nevertheless the best opportunities for introduction of innovations have averages and small enterprises. The *small innovative enterprises* in the basic weight are focused on a home market. Besides the majority of small enterprises are engaged in release of high technology production, having insignificant charges on researches and development.

Small business shows innovative activity, plays the important role in occurrence and becoming of perspective branches which define competitiveness of national economic system in the future Small business influences innovative activity of regions that has huge value in Ukraine. However, while it is not enough small innovative enterprises even for that low level of demand on an innovation which is available now. The greatest number of the small innovative enterprises is concentrated in mechanical engineering and metal working, light industry, food and sphere of services. Take place also creation of joint ventures.

Thus, the pattern of ownership influences innovative activity and specificity of made production. In Ukraine the most sore question-sources of financing. In 2006 on carrying out of innovative works of the enterprise has spent -2,2 billion grn., from which enterprises of a private property-1,9 billion grn.., the state own-0,9.
Sources of financing:

- Own means-77,3 %;
- State funds-1,4 %:
- Domestic investors-10,6%
- foreign investors - 2,5 %
- credits - 7,8 %
- others-0,4%

As shows an expert, the quantity of small enterprises increases, and are financed from own means. However is insufficiently for carrying out to the innovative policy, also there is no support from the state. The source of financing second on importance were foreign means. What is the investment as a source of financing of innovations are most accessible to the enterprises controllable by the foreign capital. Among them: the CIS countries, the USA, Chyprus, the Great Britain, Germany, Austria, Switzerland. Investments are involved not only in the existing enterprises, but also in new projects and manufactures. In these purposes joint ventures, representations, agencies are created. Financial support is necessary for successful innovative policy from the state. It is known, that in the developed countries, support of branches and manufactures occurs through the state order. Preceding from it in Ukraine it is necessary to create new structure for the state order for an innovative product.

Innovative funds which take place at the state, branch and regional level should be created due to direct state investments, and also involve means private. Especially the attention deserves a question of development the venture of capital-one of tools of financing of research works and development of high technologies, support of small and average business.

However while in Ukraine its role It is not clear . Behind estimations of Ministry of Economics, the volume of the market ventures the capital in Ukraine makes nearby 400 million $ USA. The greatest funds are: the capital at a rate of 150 million $ USA .-priority branches for investment-the food-processing industry, an agriculture, manufacture of building materials, the financial organizations As it was resulted above financing due to foreign investments increases. Today there is a small group of most successfully working enterprises having foreign sources and focused as a rule on international market for selling of production. It is quite natural to assume, that foreign investments as a source of financing of innovations are most accessible to the enterprises controllable by the foreign capital. In the latter case obvious dynamics aside decrease in the state both local budgets and simultaneous growth of a share of foreign sources is observed. However expenses for researches and development cannot be considered as completely innovative. The part of means goes on fundamental and search researches which far are not always connected with innovations. Therefore the greatest interest is represented with dynamics of charges on researches and the development which are carried out in enterprise sector of a science due to own means. These expenses with the greatest probability can be carried to innovative. The enterprise sector of a science includes the so-called branch scientific and technical organizations and the design offices being submission of the branch ministries and departments and working in interests of branch, and also research divisions at the industrial enterprises

The credit system is a little used for financing innovations. As a rule, credits of banks have short-term character and are given under high percent while innovative projects are expensive and long-term

For support of innovative activity exist a complex of tax and other privileges. Techno parks use them basically. Which carry out 64 innovative projects and 10 investments. Among them: privileges for development high, preferential stimulation of introduction of information technologies and telecommunications, a preferential mode of depreciation charges on the investment credit, preferential taxes at the first stages of development of new technologies and production, financial participation of Ukraine the European scientifically-technological programs, methods and models of forecasting social-economic development in crisis conditions.

In modern conditions gets wide scope communication science/higher educational institution with business and creation of techno parks. The center of such kind is National technical university "Kyiv polytechnic institute". University sciences has wide front of basic researches, but concedes corporate after the sizes of financing and opportunities of introduction of the development in industrial production. In modern to Ukraine their limited quantity, both on structure, and on functions. The reason is-insufficiency of the mechanism of state regulation, centralization of decision-making.

Thus, rational connection of different patterns of ownership at the organization and carrying out innovative activity-the important problem for formation of national innovative system in Ukraine.

3.   THE DEVELOMPENT OF INNOVATIVE PROCESS IN   UKRAINE

The conducted analysis of present position of scientific-and-engineering and innovative spheres in Ukraine shows that innovative activity level, level of scientific-and-engineering production, the amount of investments, made into science, development of innovative entrepreneurship infrastructure in Ukraine lags behind from the present activities in the developed countries. There is a significant discrepancy between the scientific-and-engineering potential of Ukraine and the total productivity of national economy, which is caused by the low effectiveness of national innovative system.

The main problems, which restrain the development of hi-tech sector of economy, are lack of investments and inoperative state policy, which results in cutting the quantity of scientists, complicities getting the economic return in the form of consummated innovative elaborations in order to use them in national production.

Insufficient demand on the results of scientific-and-engineering researches, deficiency of state system of intellectual property protection and badness of mechanisms of intellectual product commercialization discourage the potential agents of innovative activity. Such situation leads to backing the economies of developed countries by free of charge transferring qualified specialists with the results of their researches

The lack of institutional providing hampers the innovative process greatly. It can be revealed in absence of developed market environment as a whole and particular in incompleteness and unstructured organization of necessary legislative base, denial of active laws, which are of vital importance for profitable innovative activity.

State policy of innovative development is characterized by incompleteness, absence of strict conception of national innovative priorities and lack of system approach to the development of innovative activity (national innovative system).

Basically the main government support is turned to the low-technology branches and productions, which results in creating the model of economy, which does not need innovation boost and is competitive in the world market because of chip labor and redundant expending of resources.

At the present stage a basis of an aggravation of position in innovational sphere is increasing discrepancy between its present position and requirements of innovational development. It is necessary to emphasize, that "readiness" of national economy and a society for innovational development will consist of a complex of factors which lay in scientific and technical, industrial, financial, personnel, nature-resource, social, political-regularity spheres.

At the same time it is of vital importance for the country to assist in creation of national demand on the innovations; to implement the wide range of instruments, based on the motivations. They do not need high budget deductions, but can multiply the innovative share in the economy. Simultaneously in order to increase the level of solvent demand and stimulate the innovations, the inner employer has to increase the salary significantly. This can become the first investment into the human recourses.

But this transformation is being restrained under the pressure of several negative factors, among which we can specify the following:

- insufficient development of competitive environment and dominance of economical activity, based on the searching and appropriation of rent type revenues restrains the demand on innovations;
- long term orientation of government economical politic on chip labor prevents the implementation of modern economic techniques;
- lack of goal-oriented and consistent government politic in innovative development, absence of strict conception of national innovation priorities and system approach in development of innovative activity;
- unavailability of institutional providing for innovative activity, which becomes apparent in incompleteness and unstructured organization of necessary legislative base, denial of active laws, which are of vital importance for profitable innovative activity;
- incompleteness in foundation and imperfection of infrastructure of innovative development, which is essential for country's integration into the global process of technology transfer (according to the Index of country's readiness for functioning in global network, which was determined for each country during the World Economic Forum in Davos, Ukraine took the 78th place among 102 countries);
- lack and imperfection of government and non-government financial mechanisms of all branches of economy, starting with fundamental researches and ending by presenting new products and services on the market, which basically are the materialization of existing knowledge, indicate the government incompetence neither to develop Ukrainian scientific-and-engineering potential to the world level no to keep it on the existing level.
- sluggish realization of reforms in economic and administrative spheres increase the existing difference between scientific-and-engineering level of employees and their work productivity.

It demands the weighed complex state strategy which major principle is maximal full realization of potential innovational development for radical modernization of national economy, increase of its social and economic efficiency and national competitiveness.

I consider the priority branches of industry to be the following:

- aircraft industry;
- electric power industry;
- resources saving technologies;
- biotechnologies;
- nanotechnologies, microelectronics, information technologies, telecommunications;
- chemical industries, new materials development;
- metallurgical industry, instrument engineering and machine building industry need to be modernized as they are the basis of high technological up-dating of all industrial branches.

Fundamental and applied researches are very important to improve the mentioned above industries to the world standards in the following branches:

 fundamental research and up to the launching products and services into the market.
Fundamental and applied researches are very important to improve the mentioned above industries to the world standards in the following branches:

- chemical technologies improvement, new materials;
- biotechnologies;
- development of resources saving technologies as in Ukraine we have the highest indices of industrial resources capacity, it is true, first of all, for power saving;
- nanotechnologies, microelectronics, information technologies, telecommunications;
- development of the technologies that can help to modernize the existing funds in metallurgical and machine-building industry, instrument engineering up to the stage when they are completely up-dated; as at the present stage, because of the outdated principal funds, Ukrainian products are not competitive;
- to keep supporting those design bureaus that carry out new aircrafts and modify the existing ones.

Innovation activities (research and implementation) can be financed by the following:

- the state (priority fundamental research at first);
- joint-ventures;
- existing enterprises and institutions with the help of their profits;
- investing companies and funds;
- banks, pension funds:
- others.

All mentioned above is not enough for the full-valued development of innovation process in Ukraine. Innovations are very essential in:

1. Social sphere. It is important to develop the population with the help of education improvement, healthcare, to simplify information access for all strata of society, to form public society. It is evident that the society with the underdeveloped and not healthy population cannot follow the innovation development.
2. Ecological sphere. In this sphere it is important to work out the quality of drinking water; to improve ecological situation in big towns which is connected with transport; to look after the ecological condition of Ukrainian APS and to provide guidance of natural parks and recreation zones, otherwise the population health will deteriorate.
3.

We can name the following as innovation subjects:

- state;
- enterprises and institutions of all sizes and ownership;
- joint-ventures, banks, pension funds, investing funds and companies;
- scientific-research institutions and design bureaus;
- techno-parks;
- population

Proceeding from the mentioned above the implementation of these recommendations can promote the formation of the model of national innovation and implementation of effective mechanisms to stimulate innovation activities and innovative culture of the society.

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VARIATIONS IN THE SIZE OF GOVERNMENT SECTOR: ANALYSIS OF DETERMINANTS

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1. INTRODUCTION

One of the major issues in the social sciences is the expansion of government in recent times. Namely, absolute and relative size of government sectors grew rapidly in the majority of industrialised countries over the past century. As described by Tanzi and Schuknecht (2000), in the industrialised countries the share of government spending in GDP grew, on average, from about 12 percent before World War I to about 45 percent in the middle of 1990s. However, growth in government spending and regulation was not fully symmetrical across countries, indicating that large cross-country differences in the size of government exist nowadays, even among developed countries. For instance, based on OECD (2001) and EBRD (2001) data for 2000, total general government expenditures were approximately 20 percent of GDP in South Korea, 30 percent in Ireland, something below 40 percent of GDP in the United Kingdom and more than 50 percent in countries like Denmark and Sweden. Consequently, the main question that ought to be answered in the paper is, why such differences exist and which factors shape those differences.

2. WHAT CAUSES VARIATIONS IN THE SIZE OF GOVERNMENT: THEORETICAL FOUNDATIONS

First of all, it should be noted that in literature the measures of the size of government are usually spending based, typically with some government spending ratio. The main advantage of using government spending ratio as a measure of the size of government is that it expresses the size of government in one single number. However, a reservation exists in practice about the focus on government spending ratio as a measure of the size of government. Namely, government expenditure ratio only includes those government activities, which result in financial flows in government accounts. As Posner (1971) stresses, budgetary instruments are only one of two instruments for executing government policy, the other instrument being regulation. Nevertheless, regulation of economic activities can have little impact on the size of government budget, but it can have profound economic effects. Accordingly, governmental regulatory activities as "non-budget" or "non-fiscal" item should also be considered when measuring the overall size of government.

2.1.Size of budgetary government

The literature on the differences in size of government spending across countries and the factors shaping those differences basically focuses more on the political economy determinants, which include the following:

- Size of country, trade openness, and the degree of integration in the world economy.
  For example, Alesina and Warcziarg (1998) argue that the size of government correlates negatively with country size and positively with trade openness, contrary to what most economists would expect. They have shown that smaller countries have a larger share of government consumption in GDP, and are also more open to trade. Similarly, Rodrik (1998) finds a strong positive association between openness and government size. According to him, this is some sort of a paradox since it is often assumed that closed economies have more interventionist governments, as trade restrictions themselves are a form of government intervention. Rodrik explains this paradox by arguing that government expenditures are used to provide social insurance against the risk of terms of trade shocks that open economies face, meaning that government spending obviously plays a risk-reducing role in economies exposed to a significant amount of external risk. He shows that higher levels of government consumption are associated with reduced volatility in income flows.

- Level of economic and urban development, preferences and the heterogeneity of taxpayers and voters.
  According to classical Wagner's hypothesis, more developed countries should have larger government. Besides, it can be argued that larger urbanisation rate of a country should positively affect government spending, since urbanisation is likely to create more demand on government spending on various infrastructural, safety and social services. Similarly, the share of dependent population positively affects demand for social services and consequently government spending (Holsey and Borcherding, 1997). In addition, governments should spend more in societies with relatively unequal income distribution because in this situation the median voter is poorer than the mean voter, meaning that the benefits of redistributive government policy outweigh the costs of increased taxation for such a voter (Persson and Tabellini, 1999).

- Structure of government and political institutions.
  Three fundamental features of political institutions are: (a) structure of government, contrasting centralised and decentralised governments; (b) the electoral rule, contrasting majoritarian (pluralitarian) and proportional electoral systems; and (c) the regime type, contrasting presidential and parliamentary regime. Basically, if taxpayers are mobile, the devolution of tax bases to sub-national governments (i.e. political decentralisation) encourages competition for tax bases and may help to reduce the size of government. Reliance on grants and transfers from higher levels of government to finance sub-national governments is associated with larger governments and fiscal imbalances at the sub-national level (de Mello, 1999). In addition, Persson (2001) argues that presidential regimes should have smaller governments and countries with majoritarian elections should have smaller welfare-state programmes and less corruption.

- Social fractionalisation and ethno-religious heterogeneity of the society.

This factor should have two counteracting influences. On the one hand, Annett (2000) has revealed that higher social fractionalisation (as measured along ethno-linguistic and religious dimensions) leads to greater political instability, and governments use government spending as a tool for insuring political stability, meaning that the effect of fractionalisation on government spending should be positive. On contrary, Alesina, Glaeser and Sacerdote (2001) argue that the differences in level of redistribution between the United States and the European countries appear to be the result of racial heterogeneity, since disproportional association of certain cultural group with income redistribution may cause the aversion of majority of voters to governmental redistribution policies.[1]

2.2. Size of non-budgetary government

The term non-budgetary government indicates that government activities are not "visible", since they are not directly perceivable in the amount of government spending, yet they can be substantial and represent an enormous burden to individuals. The non-budgetary government usually appears in the form of various regulatory demands set by government in order to oversee individual behaviour. One of rare attempts to identify determinants shaping governmental regulatory activities was undertaken by Pryor (2002). He identifies several plausible causal factors of determinants of regulation:[2]

- Size of economy.
  According to Pryor, this factor should have two counteracting influences. Because production in large countries is more difficult to regulate than in small countries, governments may be reluctant in implementing regulation so that laissez-faire and size would be positively correlated. On the other hand, in a large country, the size of enterprises is generally larger and regulation may be more necessary than in a smaller country, in a way reflecting a desire by the citizenry in large countries for greater protection against possible excesses.

- The level of economic development.
  This factor also should have counterbalancing influences. Namely, Pryor stresses that it is commonly believed that governmental regulation increases as per capita income increases because the government has more resources to carry out regulatory activities. However, he also argues that it is possible at the same time that as the level of development rises, the economy increases in complexity and governmental regulation becomes more counterproductive and possibly unnecessary.

- The relative importance of foreign trade in the economy.
  Pryor's hypothesis is that more open the economy, the less able or willing is the government to regulate domestic economic activity. Similarly, Garen and Trask (2001) argue that the extent of regulation is much larger in less open economies, because they

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[1] Authors stress that the largest difference in the composition of government spending between the United States and Europe is in the area of transfers to households (including social security), and subsidies, which are the main tools for income redistribution.

[2] Although Pryor empirically examined all those determinants on the sample of 18 OECD countries, statistical confirmation received only two factors, namely the size of the economy and income inequality. His results suggest that the degree of economic laissez-faire is inversely related to economic size and directly related to income inequality. He argues that this direct relationship is particularly important in political economy because it suggests that power relations between income groups are crucial in determining the extent of the regulatory regime. Still, one disadvantage of his analysis is that it included only 18 units of observation.

tend to have relatively less government expenditure, but have more government in other forms.

- Income inequality.
  It was derived by Pryor that in situations with larger income inequality, the high-income population has relatively more political power and, as a result, fewer regulations could be imposed on "their" economic activities.

- Governmental ownership of enterprises.
  Although the majority of economists see government ownership of enterprises and the extent of regulation of the economy as substitutes, particularly in the relation to the common fable that privatised government enterprises should be extensively regulated in order to prevent them exercising their market power, Pryor argues that governmental regulation and ownership are complements, since both of them spring from the same urge to control private economic activity.

3. ANALYSIS OF DETERMINANTS AFFECTING CROSS-COUNTRY VARIATIONS IN THE SIZE OF GOVERNMENT

3.1. Data and methodology

The aim of the analysis is to identify factors influencing the variations in the size of government sector across countries. Therefore, cross-section modelling is used and it is based on a sample of 32 developed and democratic countries for which cross-sectional data on all relevant explanatory and dependent variables could be obtained. It is worth noting that the sample consists of 27 OECD member countries (out of 30 OECD countries Iceland, Japan and Turkey are not included), 4 former transitional non-OECD economies (Estonia, Latvia, Lithuania and Slovenia) and Chile as newly industrialised country and most developed country in Latin America. The theory about size and scope of government implies that certain common factors exist which might affect the differences in the size of budgetary and non-budgetary government across countries, although the direction of influence may differ. The dependent variables in the analysis are the share of general government consumption spending in GDP (CON) and the share of general government transfers and subsidies in GDP (TRF) as measures of the size of budgetary government[3] and the extent of total regulation of the economy (REG) as a measure of the size of non-budgetary government. Besides, following explanatory variables are used in the regression analysis:

- Real gross domestic product per capita (GDPC):
  Wagner's law states that government spending both absolutely and relatively expands as economies develop. Therefore it is to be expected that the level of GDP per capita would positively affect the size of budgetary government, but the effect on the size of non-budgetary government should not be exposed with reasonable certainty due to the countervailing affect of the economic development on the extent of regulation.

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[3] The purpose of using both two variables is in capturing possible different directions of influence of various explanatory variables on two main components of government spending.

- Country size (POP) and trade openness (OPN):
  As already mentioned, Alesina and Warcziarg (1998) argued that government spending correlates negatively with country size, whereas Rodrik (1998) found out positive correlation between government size and trade openness. The effect of the country size on the extent of regulation could not be predicted because of two countervailing affects. However, it should be expected that trade openness would negatively affect the extent of the regulation in the economy.

- The share of population above 65 (OLD) and below 19 (YOU):
  The economic theory recognises the importance and side effects of population aging. This involves increased demand for government spending on health care, social security, etc. Moreover, a high dependency ratio in the form of a large share of young population should for example increase demand for government spending on education, so it is to be expected that both variables should positively affect government size, but there is no rationale to predict any affect on the size of non-budgetary government.

- Urbanisation rate (URB):
  The share of population living in urban areas should positively affect the size of government spending, since urbanisation is likely to facilitate increasing taxation and to create more demands for government spending. Similarly to the above two variables, no effect on the extent of regulation is expected.

- Government ownership of enterprises (OWN):
  Although public corporations are not included in general government sector, it is to be expected that they should affect the level of government spending implicitly. Namely, they operate in order to provide certain (public) goods and services for which probably the most important costumer (but not the only one) is government. Therefore, it should be expected that government ownership of enterprises (i.e. the number of public corporations) would exert positive impacts on government consumption through purchases of goods and services produced by state-owned enterprises. Similarly, the positive effect is predicted in the relation to the extent of regulation in the economy, since larger number of public corporations would obviously require larger number of regulatory bodies, which are primarily financed with government consumption spending.

- Three political dichotomous dummy variables for country's regime type (PRES), electoral rule (PLUR) and political decentralisation (FED).
  It is expected that presidential political regime should negatively affect the size of budgetary government and positively affect the size of non-budgetary government through income and openness "channel". According to theoretical predictions it is expected that the presence of plurality in electoral rules should positively affect the size of government consumption spending, negatively affect government transfer spending and positively affect the size of non-budgetary government through afore mentioned income and openness "channel". In addition, political decentralisation should positively affect both the size of budgetary and non-budgetary government. The reason should be

very clear, since any additional legislator would imply additional government intervention.[4]

- Share of largest ethno-religious group in total population (FRAGM).
  This variable indicates the level of ethno-religious homogeneity of society. It should have two countervailing effects. On the one hand, it should negatively affect government spending through political instability channel. Namely, in more heterogeneous societies government spending to different groups within society should serve as a means of increasing the political stability of a country, meaning that spending through this "channel" should be minimised in more homogeneous countries. On the other hand, it should positively affect government spending, since in more homogeneous societies voters are likely to approve increased spending to certain social groups, because it is larger probability that they do not belong to certain ethno-religious minority. This effect is based on presumption that it is in human nature to prefer the people of the same kind.

- Dichotomous dummy variable for countries in transition (TRA).
  The purpose of this variable is to identify possible cultural or institutional differences that would imply different average size of government in this "region". Namely, the purpose for separate variable for transitional countries is to identify possible effects of the change in economic system, which largely reduced the role of government. It is to be expected that remnants of past regime would cause the larger size of government in those countries.

- General government employment as percent of total labour force (GEMP).
  This variable indicates the share of labour force that is employed in government administration. Because the salaries of government employees represent an important item of government spending, it should be expected that government employment should positively affect the size of government spending, in particular government consumption spending. However, since government employment represents "visible" government activity, the prediction should be made that it would be negatively associated with the extent of regulation.

- Income distribution in society, measured with Gini coefficient (GINI):
  The prediction is that governments should spend more in societies with relatively unequal income distribution because the median voter is poorer than the mean voter. Therefore, it is expected that high levels of Gini coefficient would positively affect the differences in the size of budgetary government across countries. In contrast, higher income inequality is expected to be negatively associated with the size non-budgetary government, since high-income population has relatively more political power and it can impede the imposition of regulation on their economic activities. Again, the inversely related effect of income inequality on government spending and regulation indicates that those two are substitutes.

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[4] In connection to the description of income and openness channel, Pevcin (2005) argues that the greater probability exists of more open and more developed countries having parliamentary political regime and proportional electoral rules.

Table 1. Variable description and data sources[5]

Variable	Description	Data source
CON	General government consumption expenditure (% GDP)	World Development Indicators (2001)
TRF	General government transfers and subsidies (% GDP)	Gwartney and Lawson (2002)
GDPC	Real gross domestic product per capita (in USD)	World Development Indicators (2001)
OPN	Trade openness (sum of the share of imports and exports in % of GDP)	World Development Indicators (2002)
POP	Country size (population of the country in millions)	World Development Indicators (2002)
OLD	Share of population older than 65 years in total population (%)	U.S. Census (2001)
YOU	Share of population younger than 19 years in total population (%)	U.S. Census (2001)
OWN	Governmental ownership of enterprises; politomous dummy variable, values between 0 (min) and 10 (max)	Based on Gwartney and Lawson (2002)
REG	Extent of total regulation of the economy; values between 0 (min) and 10 (max)	Based on Gwartney and Lawson (2002)
URB	Urbanisation rate of a country (share of urban population in % of total population)	World Development Indicators (2002)
PRES	Political regime, dichotomous dummy variable, 1 – presidential political regime	Beck et.al. (2001)
PLUR	Electoral rules, dichotomous dummy variable, 1 – existence of plurality in electoral rules	Elections around the world (2003)
FED	Structure of government, dichotomous dummy variable, 1 – existence of political decentralisation	Beck et.al. (2001)
FRAGM	Fragmentation (homogeneity) of society (share of largest ethno-religious group in % of total population)	Microsoft (2003)
GEMP	Government employment (% of total labour force)	Schiavo-Campo et.al. (1997)
GINI	Income distribution in economy, measured with Gini coefficient	World Development Indicators (2000)

3.2. Results and discussion

Following, the results of empirical analysis of factors causing differences in the size of government spending and scope of regulation are presented in tables 2-4 below.[6]

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[5] Data for all variables are for year 2000 or closest year available.

[6] In all tables, only statistically significant variables (at 10 % margin) are presented. The elimination of variables is based on their statistical insignificance and on the extent they "inflate" variance of the model. Besides, ordinary least squares estimation method is used.

Table 2. Factors affecting differences in general government consumption spending ratio

Dependent variable	Gov. consumption expenditures
Constant	2.64
(t-stat., p-value)	(0.73, 0.47)
Gov. employment	0.16
(t-stat., p-value)	(1.88, 0.07)
Old population	0.55
(t-stat., p-value)	(3.26, 0.00)
Urbanisation	0.11
(t-stat., p-value)	(2.74, 0.01)
Pluralitarian el. rules	-4.03
(t-stat., p-value)	(-4.03, 0.00)
N	32
$R^2_{adj.}$	0.65
s_e	2.56
F-stat.	15.22
Heteroscedasticity (White's Test)	No

Source: Own calculations.

The results in Table 2 indicate that government employment, share of population above 65 and urbanisation rate of the country positively affect government consumption expenditure. Rather surprisingly, the results also reveal that the existence of plurality in electoral rules negatively affects government consumption in developed countries, which is contrary to theoretical predictions.[7]

Table 3. Factors affecting differences in government transfer spending ratio

Dependent variable	Gov. transfer expenditures
Constant	4.59
(t-stat., p-value)	(0.75, 0.46)
Trade openness	0.05
(t-stat., p-value)	(2.39, 0.02)
Pluralitarian el. Rules	-6.15
(t-stat., p-value)	(-3.24, 0.00)
Political decentralization	9.27
(t-stat., p-value)	(4.48, 0.00)
Homogeneity of society	0.23
(t-stat., p-value)	(3.77, 0.00)
Regulatory activities	-3.38
(t-stat., p-value)	(-3.00, 0.01)
Transitional economies	5.73
(t-stat., p-value)	(2.39, 0.02)
N	32
$R^2_{adj.}$	0.54
s_e	4.36
F-stat.	7.07
Heteroscedasticity (White's Test)	No

Source: Own calculations.

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[7] However, due to the statistical insignificance of regression constant, the possibility exists that some important explanatory variable was omitted.

Interestingly, results in Table 3 indicate that more open countries should have larger transfer spending, which is in line with Rodrik's findings that governments provide social insurance against the risk of terms of trade shocks that open economies face. It is evident that social insurance can easily be provided with increased transfers and subsidies. Similarly, more homogeneous developed societies have larger transfer spending, meaning that voters find transfer spending to ethno-religious groups less appealing. According to theoretical predictions, transfer spending is negatively associated with plurality in electoral rules, but positively associated with political decentralisation, possibly through the existence of flypaper effects in decentralised countries (see Brennan and Pincus, 1996), and also positively associated with transition economies due to their extensive social problems connected with political and economic transformation. Surprisingly, the share of population above 65 seems to explain the variation in government consumption expenditures but not in government transfers and subsidies in this group of developed countries. Basically, it can be derived that more than 50 percent of variance of transfer spending can be explained with 6 statistically significant variables, which is not a bad result in cross-section econometric modelling (more on this see Gujarati, 2002).

Table 4. Factors affecting regulation in developed countries

Dependent variable	Gov. regulatory activities
Constant	7.70
(t-stat., p-value)	(8.33, 0.00)
GDP per capita	-0.001
(t-stat., p-value)	(-2.40, 0.02)
Income distribution	-0.09
(t-stat., p-value)	(-4.40, 0.0002)
Country size	-0.004
(t-stat., p-value)	(-1.85, 0.08)
Gov. ownership of enterprises	0.11
(t-stat., p-value)	(2.51, 0.02)
Presidential pol. Regime	1.11
(t-stat., p-value)	(2.38, 0.03)
Gov. transfer spending	-0.04
(t-stat., p-value)	(-2.34, 0.03)
Gov. employment	-0.04
(t-stat., p-value)	(-2.65, 0.01)
N	32
$R^2_{adj.}$	0.69
s_e	0.48
F-stat.	10.90
Heteroscedasticity (White's Test)	No

Source: Own calculations.

The results in Table 4 indicate that almost 70 percent of variation in differences in the extent of regulation across countries could be explained with 7 statistically significant explanatory variables. It is shown that the extent of regulation decreases with income inequality in society, with the level of economic development, and with the size of economy, reinforcing the idea that regulation is easier in smaller and less developed countries. In addition, regulation is negatively related to transfer spending and government employment, the two measures of "visible" government activity. On the contrary, it is positively related to government ownership of enterprises (they act as supplements) and to presidential political regime, which should have smaller budgetary government.

4. CONCLUSION

The main question that ought to be answered in the paper is, why cross-country differences in the size of government exist and which economic, political, cultural, demographic and social factors shape those differences. The results of the empirical analysis revealed that the form of government activities (budgetary versus non-budgetary) and composition of government spending matters in explaining differences, as, broadly speaking, economic factors are more important in explaining the variation in the size of consumption spending and in the size of non-budgetary government, whereas political, social and cultural factors are more important in explaining the variation in the size of transfer spending. Besides, the results obtained obviously indicate, that the size of budgetary government and the size of non-budgetary government move in the opposite direction. Possible explanation of this phenomenon is that the extension of regulation of the economy should act as a direct substitute to the fiscal instruments of the government. The reason could be in the fact that the existence of small government (in terms of fiscal instruments) indicates that private sector has a very large role in the economy and government oversees its activity through the regulation. Nevertheless, it is also possible that the association between budgetary and non-budgetary government is indirect. Namely, larger openness of the country should hamper the ability of government to regulate the economy, which should in turn boost output growth and according to Wagner's hypothesis very likely contribute to increased government spending.

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BANKING EFFICIENCY AND FOREIGN OWNERSHIP IN TRANSITION: IS THERE AN EVIDENCE OF A "CREAM-SKIMMING" EFFECT?

‒ FULL PAPER NOT PUBLISHED ‒
‒ EXTENDED ABSTRACT ‒

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Key words: *Banking Efficiency, Stochastic Efficiency Frontier, Foreign Ownership, "Cream-Skimming" Effect*

This paper revisits the issue of banking efficiency and foreign ownership in transition economies. The prevailing view in the empirical literature on banking in transition suggests that banks acquired by a strategic foreign partner tend to do better in terms of cost efficiency (Bonin, Hasan and Wachtel, 2005; Fries and Taci, 2005). Only few papers provide empirical evidence suggesting that foreign ownership in fact may have a negative impact on efficiency, but these studies are based either on cross-country data from developed countries (Berger, Demsetz, and Strahan 1999), data from a set of developing economies with only small share of emerging countries (Detragiache, Tressel, and Gupta 2006) or individual country data (Kraft and Tirtiroglu 1998).

The novelty of our approach is that we instrument for the decision of foreign investors to acquire domestic banks. This allows for the evaluation of the endogeneity bias due to the so-called "cream-skimming" effect. Using a sample of 282 banks in 19 transition economies we employ two-stage instrumental variable approach. In the first stage, we estimate probability of foreign acquisition by implementing panel probit model. In the second stage, the estimated propensity scores are used in the Battese and Coelli (1995) stochastic efficiency frontier specification.
Our main observation is that instrumental variable approach makes the coefficient of the impact of foreign ownership on banking efficiency positive and highly significant. This finding indicates the presence of the "cream-skimming" effect, which predicts that foreign investors target the most efficient banks for acquisition in the first place. The coefficient in front of the foreign ownership variable becomes significant for both probit and linear regression specifications, which implies robustness of the result with respect to the distributional assumptions.

Furthermore, our estimations suggest that those emerging countries which started negotiations on EU accession and eventually became (or will soon become) EU members experienced a

downward shift in the cost frontier. This result documents that improved discipline resulting from the obligations related to the EU accession, together with benefits coming from technological and market spillovers indeed improves the technology of the banking sector in the accession countries.

The comparison of inefficiency scores provides evidence that the most advanced emerging countries (Czech Republic, Hungary, Poland, and Slovakia) house in general the most inefficient banks, with only Albania disrupting this unflattering hegemony. Since these countries were the most successful in terms of attracting foreign direct investments into their banking systems, this result implies that opening financial sector for foreign entry does not necessarily assume improvement in performance of banking institutions. Drawing parallels with the previous findings on a downward shift of the cost frontier due to the EU accession, we interpret this result as the inability of the emerging markets which have recently entered the EU to accommodate the improved technological possibilities and fully enjoy the gains stemming from productivity improvements.

We would like to emphasize, however, that the negative association between foreign ownership and cost efficiency should not be confused with the contribution of foreign ownership to the stability of financial systems in emerging markets. The results should be rather interpreted as an evidence of inefficient use of inputs by foreign owned banks given the input prices and other country- and bank-specific characteristics. In other words, foreign owned banks in emerging economies might be more active in terms of providing, say, more credits to local clients or extending banking services within their local networks in emerging markets.

In addition, we do not want to necessarily associate the negative impact of foreign ownership on cost efficiency with underperformance. After entering the new market, the foreign owner can follow strategies related to long-term success and development which may be costly in the short run. These include aggressive expansion in the market or deep modernization and restructuralization, which usually require additional spending. However, this does not change our conclusion about foreign banks targeting primarily more efficient domestic banks.

To conclude, the results of our estimations suggest that opening domestic financial systems for foreign entry should not be regarded as a panacea for policymakers in emerging economies. To enjoy full benefits from foreign acquisition, the countries should develop appropriate strategies to diminish the impact of the "cream-skimming" effect. In addition, creation of beneficial conditions for foreign entrants can lead to greater benefits only if supported by a set of other institutional reforms, for example, improving governance practices.

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MULTINATIONAL CORPORATIONS AND FOREIGN DIRECT INVESTMENT: TWO CHANNELS OF EMERGING ECONOMIES DEVELOPMENT

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Key words: *multinational corporations (MNCs), foreign direct investments (FDI), emerging economies, development policies, economic growth*

1. INTRODUCTION

In the past few years, the financial and investment background has changed dramatically. In response to the production globalization and to the improvement of domestic policies, the international cash flows, represented by direct foreign investment, have increased considerably. FDI has become a real leading force of globalization throughout the world. From 1990 to 2001, the capital investment increased twice in the developing countries and three times in the poor ones. However, after 2002, the FDI flows have decreased, which renders not only the attraction, but also the maintenance of the FDI important.

The changes on the FDI scene throughout the world are reflected not only in the increase or decrease of the level of FDI global flows, but also in the purpose, structure and methods of participation as well as in the make-up of the main participating protagonists. The purpose of FDI has been dramatically extended from the traditional manufacturing companies to services, including information technology, finance and banks, as well as media. Seeking cheap labour and resources in less developed countries is no longer a phenomenon specific to the big countries. The classical scene has changed with new countries, such as China, India, Brazil, Russia, Malaysia, and the Central and Eastern European Countries (CEEC) becoming main targets of FDI.

The contracting form of the foreign companies' participation has also changed from licensing, joint venture and franchise. These changes should be carefully considered and reflected in the governments' and companies' strategies.

In the last two decades, FDI from emerging economies has emerged. It is difficult to explain why, in the period between 1990 and 2000, the foreign direct investment flows were not attracted by Romanian economy. Since the start of reforms, in 1991 Romania has been afflicted with a continued lack of financial discipline and a cold investment climate.

After the decades of financial and currency crisis, the new MNCs from emerging economies are quite different from the former "red multinationals" (which have sunk in the recession and liquidity crisis accompanying the first years of transition) and have come out from a recovery of outward FDI. This new MNCs exhibit several characteristics, in particular in the first stages of the expansion. Some MNCs from new industrialised countries are in a further stage

of internationalisation than the one that MNCs from emerging economies are muddling through.

The countries of CEECs are very recent arrivals in these types of analysis. For the most part of these, the FDI stocks are far below the average of EU-15. After 1990, there are many developments, as the lowered the barriers to FDI, increasing openness to trade, privatization, and, the major one, moving their centralised economies to market economies.

The change of economic, social and political orientation in CEECs together with the accession of a first group into EU in 2004 has raised the question about the implications of Eastern openness in terms of international capital reallocation. FDI is a major channel of economic integration. A number of studies have surveyed the determinants of FDI to the region, but the issue remains unexplored from the empirical point of view (Galego, Vieira, 2004).

Using a random effects panel data model in the analysis, they examine the probability of FDI diversion from the EU periphery to these economies. The empirical view of FDI to CEECs suggests the importance of the host country characteristics (potential demand, openness to world trade, lower labour compensation levels); for the investing country the only significant feature is population. Using a world macroeconomic model, Breuss (2001) predicted that the effects of enlargement on FDI flows will spur economic growth in the CEEC (due to capital accumulation and the renewal of capital stocks), but negatively affect growth in the current EU members, especially in the Southern countries (the Baldwin asymmetry is due to diversion effect or crowding out effect). Because it was found no evidence of FDI diversion from South to CEECs, efforts should be focussed on the implementation of structural reforms capable of generating the necessary competitiveness conditions to attract market-seeking FDI and upgrade the demand for efficiency-seeking projects.

Lipsey (2006) found that Czech Republic, Estonia, Hungary, Poland, and the Slovak Republic, in the period 1990-2003, have risen their FDI stocks far surpassed the predicted levels. In the same period, in Latvia, Lithuania, Romania and Slovenia was closed to the predicted levels, and only Bulgaria was well below. Lipsey (2006) also show that the CEECs wasn't a major destination for United States investment, but was a major location for Germans investors.

In 2006 the FDI stock in Romania was about 7.5 billion Euros. The rate of increase was 34.1%, close to the average global rate (about 34.3%).

For the investment outside the country and establishing MNCs there are two main strategic reasons. The classical point of view is expressed by Shatz and Venables (2000) and consists in serving the local market (horizontal MNCs or market-seeking FDI) and minimizing the costs (vertical MNCs or FDI with a production cost minimizing effect). Horizontal FDI are viable if the access cost by exports (transport tariffs and costs) exceeds the net cost of the local platform installation. The FDI tend to replace the exports in direct proportion to the size of the market for two reasons: a) the installation specific fixed unit costs diminish in direct proportion to the size of the market; b) the big markets tend to have more local companies and get involved in higher competition, which leads to a lower price of the products. Localizing the production is efficient if the marginal cost corresponding to the exports is relatively high. The vertical FDI are efficient in the case of input minimizing (labour, intermediate goods or even the access to certain externalities – a situation which is characteristic of FDI crowding into a location). The vertical FDI are normally export-oriented and, actually, they are not influenced by the size of the market or by the host economy. These are generally stimulated when various stages of the production process have various input requirements and input prices which vary from one country to another respectively. Shatz and Venables (2000) point

out that the international differences at the level of the price of factors and material resources tend to encourage the vertical FDI.

Both forms of FDI tend to gather in a certain location (the crowding effect) due to the connection between the projects and to the tendency of getting installed close to other companies. A famous example is furnished by the strategy of regional grouping of the suppliers of various services on the markets of intermediate inputs with direct effects on the reduction of unit costs of the final products (Wheeler, Mody, 1997). Another reason for grouping is represented by the companies' uncertainty regarding the quality of the location in a certain country; they usually wait for a first positive sign. Although the distinction between the horizontal and vertical FDI is highlighted is most research works, these strategies do not exclude each other (they are thus defined as complex or oblique FDI).

The analysis of direct investment funds drew the researchers' attention both through the governing factors and through consequences. As far as the attraction and vectorization (localizing and channelling) of the FDI funds are concerned, there are two modern theories: the theory of the allocation factor, according to which the FDI seeks countries with low wages and rich natural resources; the new commercial theory, according to which the economies of scale are the fundamental factor that determines the FDI, and the crowding effects often play a crucial role (Wheeler, Mody, 1992, Head, Swenson, 1995, Kinoshita, 2001).

The regional economic integration (REI) effect (analyzed for the first time by Blomstrom, Kokko) is represented by the degree of openness and the main influencing factors (the size of the market, the investment climate). REI is deemed to refer to the reduction of the commercial and investment restrictions which eventually leads to the expansion of the integrated community market. REI influences the FDI by means of several links.

2. THE DETERMINANTS OF FDI IN EMERGING ECONOMIES

The Galego, Vieira (2004) empirical model examine the determinants of FDI into CEECs by using dynamic panel data methods. The effects of traditional determinants (market potential, low labour costs, skilled workforce and relative endowments) and transition specific factors (level and method of privatisation, country risk) could explain the differing attractiveness of the individual countries.

EU enlargement should have considerable effects on FDI flows to CEECs, because the market potential of the entrants will increase due both to the likely increase in their GDP and to the reduction in the economically relevant distance to the EU. Decreasing trade costs should also be reflected in a reduction of CEECs tariffs. The process of integration will reduce the unit labour cost differences, which would reduce FDI in CEECs. As a result, the catching-up process will have a tendency to increase investments by horizontal multinationals and depress the vertical investments.

Kaminski (2000) argues that the accession process had first the larger impact on capital flows and subsequently on goods flows. The biggest beneficiaries among CEECs were those who followed the path of radical liberal reforms. The latter combined with preferential access to EU markets have attracted FDI. EU provided an outlet first for CEECs unskilled labour intensive products and recently for skilled labour intensive and technology based products. The EU has also been the source of knowledge intensive imports contributing to industrial realignment in CEECs. The accession has provided boost to relocation of production by MNCs to CEECs.

The"EU factor" has been decisive in attracting FDI foreign firms seem to have been contributed to the shift in CEEC exports to the EU toward more advanced stages of production. They have been almost fully responsible for integrating some CEEC firms into global networks of production and marketing. This relation is unambiguous. Those countries that attracted significant FDI flows have been also among top performers in EU markets.

Many studies of the location of FDI now take into account the economic environment in each country. One of these rating is provided by the Global Competitiveness Reports (World Economic Forum, 2006).

For 2006, the average among the EU-15 was 19, and for CEECs was 43, where 1 represented the highest rank (Table 1). We can see that Estonia, followed by the Czech Republic and Slovenia, were the leaders among CEE countries. These countries outranked both Greece and Italy, and were close to Spain and Portugal.

Table 1: Global Competitiveness Rankings, 2005

Country	Global Competitiveness Rankings 2005
CEE Countries	40
Bulgaria	61
Czech Republic	29
Estonia	26
Hungary	35
Latvia	39
Lithuania	34
Poland	43
Romania	67
Slovak Republic	36
Slovenia	30
EU-15	18
Spain	28
Portugal	31
Italy	38
Greece	47
China	48

Source: World Economic Forum, 2006
            Levine, 2006

3. MACROECONOMIC ASPECTS. MULTINATIONAL CORPORATIONS, FOREIGN DIECT INVESTMENT AND THE ECONOMIC GROWTH

Many researchers have had in view the correlation between FDI flows and economic growth. Dunning (1988) proposed the so-called model of an Investment Development Path (IDP model). The foundation of the model are that inward and outward FDI of a country is function of its level of economic development (GDP per capita) and that a country follows a

foreseeable sequence of production internationalisation alongside with its economic development path.

In the latest literature there appears a trend of highlighting a positive correlation between the FDI and economic growth, both the technology transfer and the labour productivity growth being included here.

Borezstein, De Gregorio, Lee (1997) showed that while FDI is an important vector of the technology transfer and a positive factor contributing to the economic growth, the impact is directly proportional to the qualitative level of the human resources in the local economy (this level can be represented by the level of education and by the general health condition). In addition it was shown that, in the investment race, the FDI are also characterized by the flock effect.

Andreeff (2002) proposed an econometric testing of the relationship between outward FDI and the level of economic development in home country that fits with emerging economies. Economic recovery and growth perspectives of the domestic market accelerated FDI. Home rather than host country factors or motives often explain emerging outward FDI from developing countries. Home country level of economic development and the size of its domestic market are major determinants of outward FDI. The sector structure of the home country also shows up as being influential, but the result is quite ambiguous since it doesn't clearly split developing economies from developed countries as regards outward FDI. The technological level is not a strong determinant of outward FDI and less explaining a variable than it is usually assumed in the literature on third world multinationals; it should not be retained when explaining outward FDI from emerging economies. Short-term variable basically have no significant effect on outward FDI stock. Such a result verifies, in a reverse way, that outward FDI is linked to structural aspects of economic development, namely in emerging economies.

There is also ample evidence both in the theoretical literature concerning economic growth (Barro, 1997), and in the empirical branch of the finance-growth research (De Haas, 2002) which confirm the hypothesis that a country can improve its economic growth structurally. At the same time (Koivu, 2002, Bonin, 2000, Pisarides, 2001), the financial systems serving to facilitate and channel investment are still little developed in the great majority of the Central and Eastern European countries. FDI plays an important role in providing the funding necessary to these countries. Mention should be made of the small number of the analyses performed for the Eastern Central European countries as regards the influence of FDI on economic growth.

Kokko, Zejan (1996) pointed out that the evaluation of the transfer is difficult when the foreign branches have levels of productivity way higher than the local companies. In the case of resource processing enclaves, there is no more purpose of learning and transfer, owing to the discrepancies between the foreign and the local technology. These special cases of enclave-type FDI (in the oil industry – natural resources) have a low impact on economic growth. In an extreme hypothetical case, in which the transfer is not proposed, FDI contributes however to economic growth through the mere generation of income.

4. MICROECONOMIC ASPECTS. TECHNOLOGY TRANSFER AND PRODUCTIVITY SPILLOVERS TO DOMESTIC FIRMS

4.1. The technology transfer to indigenous firms

FDI is expected to generate technology spillovers to indigenous firms in emerging economies. Cohen, Levinthal (1989) point out that R&D plays two roles: to stimulate innovation and to increase the firm's absorptive capacity (ability to identify, assimilate and exploit outside knowledge). The investments cause direct (increased productivity due to superior technology and human capital) and indirect effects (from increased absorptive capacity, which increases the ability of the firm to internalise and utilise outside technology and knowledge).

Findlay (1988) shows that the increase of the FDI flows generates the increase of the rhythm of the technical progress through a contagion effect coming from the advanced technologies and efficient managerial practices used by the companies in the developed countries. This contagion or diffusion of the knowledge base (often expressed by the spread of externalities or efficiency of transfer) may lead to the improvement of the productivity and efficiency of local firms through several channels of action.

Sinani, Meyer (2004) use a production function framework to estimate the impact of technology transfer from FDI on the growth of sales of domestic firms. Employing panel data techniques they control for industry and firm specific effects and use a Heckman two-stage procedure to control for sample self-selection bias. They find that the magnitude of the spillover effect depends on the characteristics of incoming FDI and of the recipient local firm. Their reaction depends on the ability to absorb technology. Glass, Saggi (2002), Borensztein (1998) argue that absorptive capacity is a function of technology accumulation and human capital because investment in new technology and skilled labour contributes to increased absorptive capacity. For CEECs, Djankov, Hoeckman (2000), Kinoshita (2001), Konings (2001), Yudaeva (2003) investigate technology transfer spillovers based on firm-level panel data. In addition, Liu (2002) investigates spillovers using industry data from China. Konings (2001) finds negative spillovers to domestic firms for Romania, Croatia, Turkey and Bulgaria, which suggests that the crowding –out effect of competition dominates the positive effect of technology transfer. However, Konings finds no evidence of any spillovers to domestic firms in Poland. Djankov, Hoeckman (2000) find a positive impact of FDI on the growth of sales of domestic firms. Hence, growth of sales in the industry occurs in the foreign-owned firms while the technological level of local firms may be too low to enable them to absorb new knowledge that they encounter. The correlation between FDI presence and productivity growth in Romania using industry-level data was tested and the effects of spillovers are similar to those in other CEECs ten years ago.

Razin, Sadka, Yuen (2004) argue that foreign investors have an informational advantage over the local protagonists. On the basis of these arguments, Lougani and Razin (2005) suggested that although the empirical relevance of these types of risks connected with FDI remains to be demonstrated, the potential risk seems to lead to a more shaded point of view as regards the effects of the FDI.

Spillovers have a positive or negative impact on productivity of local firms depending on whether the negative competition effect outweighs the positive effect of demonstration and imitation, the training of employees and the positive effect of backward and forward linkages.

By using panel data analysis and different measures of spillovers (industry level) it is possible to focus on identifying characteristics of Romanian firms that explain the ability to benefit from FDI. Contrary to expectations, own resources of domestic firms do not enhance their

ability to attract spillovers; the pertinent interactive terms are mostly negative across firm types and for the overall sample of domestic firms. Given that domestic firms fail to catch up with foreign firms in most industries, it was introduced the minimum threshold to modify and apply the advanced technology of foreign firms. In Romania, the absorptive capacity of domestic firm's problem declined further because the skilled workers moved to foreign firms.

As it results from the literature in this field, a governing quantity-based factor of the transfer seems to be the size of the technological gap between the domestic and the international companies. This is to be explained through the power of the host company to absorb the new technology. Imbriani, Reganati (1997) analyzed this aspect with various types and sizes of companies in Italy and demonstrated that the transfer efficiency is in inverse ratio to the technological gap. Blomstrom (1996) analyzed the effects and the mechanism of reducing the average diffusion of the gap as a consequence of the presence of FDI in Mexico and proved that this effect cannot be dramatic in the sectors using simple technologies. Blomstrom interpreted this as an invitation to achieve a surplus of productivity as early as the stage of attracting the FDI.

Wang, Blomstrom (1992) argue that competition reduces the technology gap between domestic and foreign firms, which forces foreign firms to transfer more technology to the host country. Promotion of local competition would increase competitiveness and consequently, the transfer of technology.

The evaluation of the size of FDI spillovers is based on a correctly measuring of firm productivity (Olley Pakes, 1996). The firm maximises the expected discounted value of its future net cash flows. At the beginning of the period, the firm learn its productivity (which is assumed to evolve according to an exogenous Markov process) then it decides whether to exit or not, it chooses variable factors (labour and materials) and how much to invest in capital. The results suggest that FDI lead to significant productivity gains for domestic firms. This analysis indicates that the results are likely to generalise to other countries and periods.

Another problem is connected with the speed at which the host companies adopt the new foreign technologies. In this case the central factor is represented by the increase of the degree of competition set by MNC. Mc Fetridge (1997) showed that the new technologies are often introduced by the MNC branches, but the aggravation of competition implies the acceleration of adopting the new research and innovations by the local companies. Chen (1993) demonstrated the existence of a positive correlation between the technology transfer speed and the weight of FDI for four branches in Hong Kong. Moran (1998) suggested another important factor influencing the size and the efficiency of the transfer, namely the type of the investment climate in the host country, showing that a liberal climate tends to generate strong effects through the force of attraction of more dynamic FDI, equipped with an extended set of attractive qualities (size, economy of scale, higher management practices, state of the art technology and utmost efficiency). On the other hand, a restrictive investment climate tends to attract less efficient FDI, characterized by slow rhythms of technology transfer and delays in implementing advanced management systems.

Moran (1998) also argued that a more liberal investment climate tends to encourage the export-oriented activities and sectors, which results in the interest and attraction of renowned global or regional MNC networks. The additional advantages consist in the continuous supervision of costs, a top quality control and in the development of human resources and management. Together with the FDI orientation towards export the force of attracting other major foreign investors is also created, and the new competitors crowd the target location. The synergetic combination of top technologies, the competitive export on the international markets and the attraction of foreign investors in target locations tend to generate a

considerable transfer and powerful externalities. Ernst (1998) observed that in the case of domestic market oriented FDI, the introduction and use of modern systems of management, including the quality control systems, are delayed.

Bloningen, Kolpin (2002) introduced endogenously determined technical innovation and agglomeration externalities into a model of regional competition for investment. Most recent literature on regional competition for investment has almost exclusively focused on how regional competition may promote efficiency or efficient outcomes despite imperfect or asymmetric information. This study points out that there are serious inefficiencies induced by regional competition that go beyond resources used to participate in the bidding process. These inefficiencies affect firm location, production technique and the agglomeration externalities that accrue. The only previous theoretical study considering competition for investment in the presence of agglomeration externalities is Ludema, Wooton (2000). This was focused on how exogenous changes in agglomeration affect the intensity of tax competition across regions, whereas Bloningen, Kolpin (2002) examines how agglomerative forces affect Pareto efficiency of outcomes from regional competition for investment and are endogenously determined by such competition.

In contrast with previous literature, it is identified new reasons for why regional competition may lead to inefficient outcomes-such competition may induce the development of inefficient production techniques, inefficient firm location and industry agglomeration. Regional competition gives firms incentives to develop and adopt technologies that make alternative location more competitive. This can allow the firm to extract surplus from regions that exceeds the productive inefficiency costs of developing new technologies. In addition it may lead to inefficient location of investment with a concomitant lessening of agglomeration externalities.

4.2. The analysis of the productivity spillovers from FDI to domestic firms

Lall (1990) identified the following types of interactions which contribute to the increase of the productivity and efficiency of local companies: a) the suppliers' support in the production facilities; b) the suppliers are requested to manufacture high quality products and deliver them at the stated times; c) providing technical or informational aid for the purpose of improving the quality of the products or of facilitating and supporting innovations; d) providing support in staff training, including management and structuring; e) assisting the suppliers in finding new customers, including the recommendation of the sister companies from other countries (in this way, the suppliers can start their export activity towards the sister branches or other independent targets).

The empirical studies (conducted separately at the level of companies, branches and sectors) provide a solid proof that FDI achieves a robust transfer efficiency, but no consensus has been reached on the intensity of the effects (Blomstrom, Globerman, Kokko, 2004). For the developed countries there is limited evidence which indicates a highly positive correlation between the productivity of the local companies and the presence of the foreign companies (Caves, 1994, Globerman, 2001, Nadiri, 2003). For the emerging countries the results are positive on the whole, even though the opinions are not unanimous. There are studies that testify to the presence of foreign investors leading to the increase of productivity in the sectors of the host country (Blomstrom, Kokko, 2002, conducted an economy-based analysis of the effects of FDI in Mexico; Kokko, Zejan, 2003, for Uruguay; Sjoholm, 2001, for Indonesia, Javorcik and Spatareanu, 2003, and Altamonte and Pennings, 2005, for Romania), but there are also other studies that point to the limits or even the non-existence of the contagion (Aitken, Harrison for Venezuela).

Haskel, Pereira, Slaughter (2002) proposed an analysis of the productivity spillovers to domestic firms by using a first micro level study. From this point of view it is interesting to know how much should host countries to pay to attract FDI. They estimate a significantly positive correlation between plant's total factor productivity and the foreign share of employment in that plant's industry; these estimates suggest that per job value of spillovers appear to be less per job incentives governments have granted in recent high profile cases, in some cases several times less. Spillovers take time to permeate to domestic plants that they are more important for plants at the lower end of performance distribution.

5. THE ISSUES ASSOCIATED WITH EMERGING ECONOMIES

5.1. The effects of excessive FDI

FDI is not just an ownership problem, but, more important, an actual exercise of control and management of inside information (this aspect of control distinguishes FDI from other types of capital inflows as foreign portfolio investment, FPI). FDI investors can monitor closely the operation of platforms and have an informational advantage over FPI. Anticipating future domestic stock market trade opportunities, in advance, foreign investment becomes excessive. Unlike the home- bias informational problem, which leads to inadequate FPI, but may be correctable by Pigouvian taxes (tax on non-resident income, tax on interest income, corporate tax), excessive FDI flows under insider-outsider informational problem call for a non-tax corrective policy (because they are governed by unobservable variables and because there exist self – fulfilling expectations equilibrium which cannot be efficiently corrected by taxation). The corrective policy tool that is left available is then quantity restrictions on FDI.

FDI is highly leveraged domestically. After gaining control of the domestic firm, a FDI, after an aggressive extension of the market value of the firm, usually resorts to the domestic credit market to finance new investments. Razin, Sadka, Yuen (1999) explored the policy implications of the home bias in international portfolio investment as a result of asymmetric information problems (in which domestic investors have an informational advantage over foreign portfolio investment, FPI). The gains (or losses) brought about by FDI are estimated by comparing the laissez-faire allocation in the presence of FDI with the closed economy laissez-faire allocation (named autarky). In the traditional argument in favour of capital mobility the welfare impact of capital mobility is presented with the scissors diagram (marginal product capital for the two, home and foreign, countries are situated at opposite ends). FDI, a resilient type of capital flows is introduced in a framework in which domestic capital markets are characterised by imperfect information. A model of FDI interacting with Romanian credit and stock markets includes more than one equilibrium (different equilibrium are characterised by significantly different volumes of FDI flows, as well as saving rates and welfare levels).

5.2. The differential behaviour of firms in turbulence periods

Desai, Foley, Forbes (2004) provide evidence on the effect of financial constraints on firm growth by examining the differential performance on (multinational) affiliates and local firms during currency crises in emerging markets (for instance, the third generation of currency crises). Affiliates expand sales, assets and investment subsequent depreciation, while local firm decreases in these measures of operating activity and tends to increase the leverage and vulnerability (which represent a consequence of the asymmetrical information). Both types of

firms experience similar changes in operating profits after crises, indicating that the competitiveness benefits from depreciation are similar. Multinationals receive equity infusions from their parent companies after depreciation; this evidence confirms the importance of internal capital markets to MNC in overcoming the financial constraints that hinder local firms in the aftermath of currency crises.

These findings point to an underappreciated effect of FDI in emerging markets. The internal capital markets of MNC's allow their affiliates to expand output after severe depreciations, precisely when economies are fragile and prone to severe economic contractions; as a consequence, the affiliates can mitigate some of the aggregate effects of crises. While MNC appear to mitigate the contractionary output effects of severe depreciations, the long-term effects on local firms remain an open question.

Also, none of the theoretical models of FDI spillovers (Markusen and Venables (1999), Lin and Saggi (2006)) investigate the role of local financial markets and neither do they focus on the dynamic effects of FDI spillovers.

5.3. The effects of capital market mispricing. The cheap capital concept

Baker, Foley, Wurgler (2004) analysed how stock market mispricing affects FDI (in developed markets) and proposed the cheap capital view of FDI. A substantial literature has examined the link between securities market mispricing and corporate investment patterns, but a consensus has not emerged. Loughran, Ritter (1995), Baker, Wurgler (2000) find that equity issuers have abnormally low equity returns in the years following the issue, but Brav, Gompers (1997), Famma (1998) challenge the interpretation of some of these results. Speiss, Affleck-Graves (1999) finds those speculative grade debt issuers experience low subsequent stock returns, and Richardson and Sloan (2003) find that raising external equity or debt is associated with low subsequent returns. Dong, Hirshleifer (2003), Verter (2003) find support for the mispricing driven view of mergers in data.

Gordon, Hines (2004) surveys the literature on the effect of host country exchange rates on FDI**.** The interaction of exchange rate shocks and capital market imperfections in the Romanian case is very interesting. This aspects could yield many important insights about the complex nature of FDI and allows the researcher to separately study the impact of host (it contains relatively more info about investor's perception of the marginal profitability of FDI in Romania) and source country valuations (for the foreign investor's cost of capital). Prior research has not considered FDI from the perspective of mispricing. There are two channels through which mispricing affect FDI: cheap assets channel (in which FDI inflows represent the purchase of hosts assets at less than their integrated-efficient world markets benchmark price and could result from low investor sentiment or a liquidity crisis) and the cheap capital channel (here, FDI outflows are a natural use of the low cost capital available to overvalued firms in the source country). Cheap capital concept offers a realistic and useful addition to the existing theories of FDI.

5.4. FDI and regional economic integration

The REI effect (analyzed for the first time by Blomstrom, Kokko) is represented by the degree of openness and by the main influencing factors (size of the market, investment climate). REI refers to the reduction of the commercial and investment restrictions which ultimately leads to the expansion of the integrated community market. REI influences the FDI through several links. As regards the intraregional FDI, the following effects are going to be

analyzed: the reduction of the barriers (a surplus of openness); the stimulating effect as a consequence of making efficient use of the MNCs functioning. In addition, the intraregional FDI become stimulating by shifting the investment restrictions including the removal or the reduction of the entrance restrictions. As regards the impact of the interregional FDI, it is their effects that are highlighted. If the REI leads to a protection that is higher as compared to the rest of the world or if there is a tendency of growing fear of the outsiders from future protection, the horizontal FDI can be accelerated. The other FDI will also increase thanks to the expansion of the integrated community market and to the attractive and friendly intraregional investment milieu.

The current research works have only referred to the statically effects of the FDI. By analyzing the REI, an evaluation of the dynamic effects positively affecting the FDI flows is absolutely necessary.

CONCLUSIONS

In the past few years, in response to the production globalization and to the improvement of domestic policies, the international cash flows, represented by direct foreign investment, have increased considerably. The financial and investment background has changed dramatically, and FDI has become a real leading force of globalization throughout the world.

Two basic aspects of foreign direct investment (FDI) are analysed, namely its correlation with the economic growth, technology transfer and labour productivity, on the one hand, and the specific issues of CEECs related to MNCs and FDI, on the other hand. The results are also presented from the standpoint of the influences and importance of the business and investment climate, of the existing capital market and of the degree of openness (liberalization).

FDI contributes to economic growth in host economies directly and indirectly. FDI adds directly to employment, capital, exports, and new technology in the host country. In addition, local firms may benefit from indirect effects of improved productivity through demonstration effects and labour mobility. These externalities are commonly known as spillovers because foreign investors cannot appropriate them fully. The expectation of obtaining FDI spillovers has motivated governments in many emerging economies to adopt policies aimed at attracting investors.

Even though no general consensus has been reached as regards the correlation between the FDI and the economic growth, there appears in the latest literature a more and more obvious tendency to highlight a positive correlation between the FDI and the increase of the company efficiency and productivity for emerging economies. The main efficiency transfer channels are as follows: the technologies taken over from MNCs, making efficient use of the existent technologies and resources, the new techniques of staff training, the connections between the MNC branches and the local suppliers and customers.

We also have in view the size of the technological gap between the domestic and international companies. This is to be explained by the capacity of the host company to absorb the new technology; the speed of adopting the new foreign technologies by the host companies. In this case the central factor is represented by the increase of the degree of competition set by the MNCs; the type of the investment climate in the host country. Analysed will be the impact of the liberal climate which tends to generate strong effects through the power of attracting more

dynamic FDI, equipped with a wide range of enticing qualities (size, economy of scale, higher managerial practices, state of the art technology and utmost efficiency), and the export-oriented ones, but also the impact of a restrictive investment climate which tends to attract less efficient FDI, with outdated technologies, characterized by slow rhythms of technology transfer and delays in implementing advanced managerial systems.

We may also take into consideration the efficiency of the FDI in a situation of crisis (for instance the third generation crises from the end of the last decade) with sudden sales and withdrawal from the emerging markets, which represent a consequence of the asymmetrical information.

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GOVERNANCE QUALITY AND ECONOMIC DEVELOPMENT:
A theoretical and empirical analysis

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transition, democracy

1. INTRODUCTION

The rise and decline of nations throughout history continuously puzzles economists. Experiences of yesterday's superpowers and yesterday's paupers show that successful economic performance in the long run is a very complex process, the scope of which goes well beyond the simplified neoclassical approach to growth. Economic growth is a process, which is irreversibly connected with economic development. And successful growth in the long run thus also implies the need for successful development. Capital and human capital accumulation, abundance of labour and technological advances are necessary, but not sufficient conditions for successful economic growth. Successful economic performance has its base in the microeconomic level. And firms can not grow, they will not invest, employ, buy new technology, develop new technology unless the business environment is good, stable and growth supporting.

Business environment is a key determinant of successful performance of firms. It consists of numerous aspects of institutional environment in an economy: the rule of law, property rights protection, capital and financial market development, labour market institutions, international relations, the role of the state, presence of corruption etc. Institutional development has been proven to impact economic performance (e.g. North 1991, Barro 1991, Bevan et al. 2004, Alston et al. 1996). Thus it is important to ensure the development of institutions and their

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[1] The next steps in the analysis to improve the results will be: (1) we will make a comparison with the 1999 database and (2) probit analysis will be used to establish the relationship between some further variables of interest.

efficient performance. Now, the key institutions that often manages or at least influences the development of all other institutions, is the state. Therefore, efficient state is crucial for successful economic performance.

The article will examine the importance of how the state is managed or 'governance' for economic performance in transition economies. According to the definition used by the World Bank[2] governance is the manner in which power is exercised in the management of a country's economic and social resources for development. In order to examine the importance of governance for economic performance, we will first shortly examine the process of economic growth and show that the growth equation extends beyond the simple production function approach. Next, we will focus on the importance of institutions for growth and define governance as a subaspect of institutional quality. Then, we will develop a theoretical model, examining the importance of governance for growth. Last, the importance of governance will be shortly examined on a sample of transition economies with the help of micro data provided by the BEEPS study by the World bank.

2. GOVERNANCE IN INTERDISCIPLINARY APPROACH TO GROWTH

Investigation of sources of long term growth and development has always been an interesting topic to economists, seeking for the causes of rise and decline of nations. In this paper, we focus on the importance of governance, which refers to how the state with all its institutional arrangements is being run. Let us first define the role of governance in the process of economic growth.

2.1. Interdisciplinary approach to growth

Empirical literature, although often starting from typically neoclassical foundation, includes into the explanation of growth process what Durlauf and Quah (1999) called 'a blaze of mediocre sociology'. In the standard neoclassical setting softer variables, like institutions, history, geography don't matter. Dibooglu and Kibritcioglu (2001) stress, that the theory developing from the Solow (1956) foundations into the endogenous growth stream focuses merely on the supply side factors like capital, labour, knowledge, technology (e.g. Denison 1962, Barro 1999). However, modern institutional economists have been developing a slightly different story. Douglas North, a Nobel laureate, argues: ' Institutions are the incentive structure of a society and therefore rules, norms and enforcement characteristics that make up the institutional foundations of a society direct the allocation of resources of that society and economy'. Economic growth throughout history could only be realized by creating an institutional and organizational structure that would induce productivity enhancing activity – a supply side argument; and equally that the consequent tensions induced by the resulting societal transformation have resulted (…) in politically induced fundamental changes in the institutional structure to mitigate these tensions – a demand side argument (North, 1994. p.1).' The linkages between economic growth and factors of growth are very complex and thus impossible to capture with a few variables. Dibooglu and Kibritcioglu (2001) proposed a matrix approach to analysis of growth factors (See Table 1).

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[2] For definitions used by the World Bank see for example publications available at:
http://web.worldbank.org/WBSITE/EXTERNAL/WBI/EXTWBIGOVANTCOR/0,,menuPK:1740542~pagePK:
64168427~piPK:64168435~theSitePK:1740530,00.html.

Table 1: Possible interactions in growth process

	Capital and labour	Techno-logy	Demogr-aphic factors	Geographical factors and climate	Cultural factors	Institutional factors and democracy	Government policies	Income distribution	Macro-economic stability	Economic growth
Capital and labour	↰									
Technology	↰	↰								
Demographic factors	↰	↰	↰							
Geographical factors and climate	↰	↰	↰	↰						
Cultural factors	↰	↰	↰	↰	↰					
Institutional factors and democracy	↰	↰	↰	↰	↰	↰				
Government policies	↰	↰	↰	↰	↰	↰	↰			
Income distribution	↰	○	↰	○	↰	↰	↰	↰		
Macroeconomic stability	↰	↰	○	○	↰	↰	↰	↰	↰	
Economic growth	↰	↰	↰	↰	↰	↰	↰	↰	↰	↰

Source: Dibooglu and Kibritcioglu, 2001, p. 8

Successful economic growth in the long run is a complex mix of factors, both supply side factors, analyzed by neoclassical, today endogenous growth theory, demand side factors and other softer factors, some completely exogenous (e.g. climate).

2.2. Role of institutions in the process of economic growth

Institutions are a very complex process understood differently by various scholars. For many institutions are a set of rules and norms of behaviour that structure human interaction (North, 1989). Consequently they have a lot of impact on political, social and economic relationships in the society. Institutional changes shape and contribute to the evolution of the society in time and affect the history. For some, institutions are a set of constraints, which govern the behavioural relations among individuals or groups (Nabli and Nugnet, 1989). Institutions are hence in short set of formal and informal rules governing the actions of individuals and organizations and interactions among them. The term institutions is very broadly defined and is used to denote both governmental and non-governmental systems that govern social relations.

Economically, both formal and informal rules, traditions are very important from developmental viewpoint. But given that informal rules, norm and traditions evolve spontaneously and very slowly (See Aoki, 2001), they are usually not in the centre of interest of scholars. The formal set of rules are created by the state. The state through its legislative, executive and judicial branches sets out the formal rules and enforces them through coercive systems (mainly judicial and regulatory systems) in order to create a stable and sound institutional environment to support economic growth and development. Both sound formal and informal set of rules create an environment with low transaction costs and enhance efficiency and growth in an economy.

Let us focus on the formal set of rules in a capitalist environment. Pejovich (1990, pp. 25-34) claims that there are three basic institutions that define the nature of the capitalist system: private property rights, the law of contracts and a limited government. The underlying idea in the identification of these core capitalist institutions is the liberal capitalist idea: economic agents seek to maximize their target functions in an environment that ensures the protection of their property rights through an efficient legal system. The state is a monitoring actor and a creator of a good and stable institutional environment, but does not interfere with the economy. The idea of invisible hand and homo economicus would in the long run in such an environment lead to efficient economic results. Several other definitions of good institutional environment emerged. Rodrik (1992, p.4) claims that the following aspects of institutional framework are important: property rights, regulatory institutions, institutions for macroeconomic stabilization, institutions for social insurance, and institutions of conflict management.

2.2.1. Historical emergence of institutions as a mean of governance

Institutions as a framework for economic activity are not new. Even in prehistoric times, when people were living in tribes, there were some kinds of "institutions", though impersonated as the chief of the tribe, whose role was to guide the tribe. The evolution of institutions continued with the rise of urbanism and establishment of states and governances. Several factors influenced the process of urbanization, including: (1) The need for security may have caused people to seek protection within the safety of fortified walls, (2) It facilitated central control of the population by the state, (3) Society was evolving beyond its mere agricultural needs and required specialized craftsmen, traders and other skilled personnel.

In order to increase the economic activity, first formal law systems were implemented[3]. One early solution was the Community Responsibility System, where all the members of the foreign community were held responsible for the behavior of their members, even from other cities. But the system was imperfect in sense of the sanctions, which could result in the disruptive trade between the cities involved in the conflict. The second solution was the system of merchant guild, which boycotted the goods from the merchant coming from cities that traded unfairly (Tanner et. al. 1932). Commonly, guilds established their private tribunals that later expanded over the boundaries of the cities and became the guideline for the long distance trade. Another solution was the system based on the reputation, thus based on past experience and knowledge (such a system was established in Venice, see Aoki, 2001).

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[3] With great empires emerging, there was also the expansion of the trade. When exchanging goods in the market, following with immediately payment, the quid and the quo are exchanged simultaneously. But what if quid and quo are separated, especially in time? The seller could hand over the goods without receiving immediately payment. What was the guarantee for the seller to receive the payment, or paying goods in advance and a promise of the seller to deliver goods later? The quid and the quo were also separated in space in time, for example different agent, representing the seller, taking goods to distance markets to sell them (Grief, 2004a). If he was cheated in the market, he had to trust local authorities to protect him and not discriminate him as a foreigner. This problem was very acute in the medieval, not so much in the European cities, but when the long distance trade has to be carried on (Grief, 2004b). The cities had their own legal system, which could not be implemented in distant cities and the result was limited trade between the cities. Although the lack of the formal law institutions, there were informal instruments that enabled the long distance trade, such as family connections and previously experiences.

Institutional arrangements slowly developed through history out of mere need for overseeing of economic processes and lowering of transaction costs. Hence all three basic institution, that define the capitalism, were formed and it seemed (this process continues nowadays) that institutions work in the public benefit and their quality heavily influences economic activity.

But what also became very evident through historical experience was that institutional arrangement are heavily influenced by the current management of the state, which can also be interpreted as politics. Thus the process of governance, the process of 'state' management, is under direct impact of politics. In the western hemisphere, in the end of the 18th century, the society faced with the term modern democracy, which was seen as the opportunity for the enlightened people to guide the society towards the prosperity. Adam Smith and James Madison, who later became the fourth president of the USA, believed in the democracy, but they quickly realized, that democracy is again the system in which the rich minority controls the poor majority and can be thus problematic from several aspects (efficiency, fairness, etc.). Adam Smith predicted that the rich minority will govern by the principle: All for us, nothing for other people. In 1792 Madison warned, that the developing capitalism state replaces the public duty to serve majority with private benefit (Chomsky, 1999). But when does the democracy work? The democracy works, when the individuals can participate in the decisions, which influence on the society and are not disturbed with the concentrated forms of power.

2.2.2. Empirical investigation into the importance of institutions

Empirical studies have confirmed the importance of good institutional environment for economic growth. Country-level studies consistently show that less secure property rights are correlated with lower aggregate investment and slower economic growth (Knack and Keefer, 1995; Mauro, 1995; Acemoglu, Johnson and Robinson, 2001). There is evidence that a well-functioning financial system contributes to investment and growth (Levine, 1997; Rajan and Zingales, 1998). The importance of legal system for capital markets development and thus subsequently economic growth was confirmed by Berkowitz, Pistor, Richard (2002), La Porta, Lopez-de-Silanez,Schleifer and Vishny (1998) and other. The role of the state as an institution has also been carefully examined. Growth enhancing or supporting state should be characterized by a small state (fiscally), benign and incorrupt government, low taxes and deregulation. A healthy state has contributed to economic performance in Europe in the past millennium (North (1981)), to economic growth across states in the past 40 years (Knaack and Keefer (1995), Mauro, 1995, Easterly and Levine, 1997) and also to successful transition from socialism to capitalism (Johnson, Kaufman anf Scleifer, 1997). The role of institutions in the process of economic development can thus not be overlooked or neglected.

2.3. Governance as a subaspect of institutional quality

What is governance and why is it important? Governance is just one aspect of the institutional quality. World Bank (1992) provided one of the first definitions of governance. The definition claimed that governance was the manner in which power was exercised in the management of a country's economic and social resources for development. In its latest publication on the problem of governance and corruption, World Bank (in Kaufman et al 2006) defines 'governance as the exercise of authority through formal and informal traditions and institutions for the common good. Governance encompasses the process of selecting, monitoring, and replacing governments. It also encompasses the capacity to formulate and

implement sound policies, and the respect of citizens and the state for the institutions that govern economic and social interactions among them.' Governance is divided into six components organized around three broad categories (a) *voice and accountability*, which includes civil liberties and freedom of the press, and political stability, (b) *government effectiveness*, which includes the quality of policymaking and public service delivery, and lack of regulatory burden, and (c) *rule of law*, which includes the protection of property rights and independence of the judiciary and control of corruption.

Campos and Nugent (1999) argue that governance shows five institutional components including the executive branch of government, the bureaucracy, the rule of law, the character of the policy-making process, and civil society. Ahrens and Meurers (2001) claim that governance is the capacity of the formal and informal institutional environment to implement and enforce public policies and to improve private - sector coordination. Governance or rules that enhance the quality of policy making need to show distinct characteristics, which in turn imply four major principles that should guide governance related policies. There are four fundamental governance dimensions or put differently: rules that enhance the quality of policy making need to show distinct characteristics, which, in turn, imply four principles that should guide governance related policies. The first principle is *accountability*. Control mechanisms must be in place that make public officials responsible for their actions and that imply credible sanctions in case of non-compliance with rules. Secondly, rules must be sufficiently flexible to adjust to changes in preferences, technology or societal needs. This process of institutional change must reflect different interests. This aspect is referred to as *participation*. The third aspect is *predictability*. Rules must be clearly defined for a sufficient domain of possible events and economic agents must be confident that the rules will be properly enforced. The last aspect is *transparency*. The rules must be known and actions of government agents must be observable to judge compliance with formal rules (Ahrens and Meurers, 2001).

The lack of good governance is often linked with the presence of corruption (Thomas et al. 2000). Corruption is even defined as the abuse of public office for private gain (Thomas et al. 2000, p. 137). The presence of corruption among high and lower levels of state institutions depletes the positive effects of good governance by lowering the efficiency of state governance. But numerous empirical exercises suggest that corruption is closely intertwined with all six governance components and also that the presence of corruption has a negative impact on economic performance and welfare. Mauro (1997) (in Thomas et al. 2000, p. 144) showed that corruption slows growth; in Bangladesh the growth rate without corruption would be 1,8 percentage points higher that it was (4% on average in the period 1960-85). Otherwise corruption by lowering the efficiency or the quality of governance has numerous other negative impacts on economic growth: (1) it leads to lower domestic and foreign investment (Mauro 1997, Johnson et al. 2002), (2) impacts enterprise development and leads to higher activity in the unofficial sector (Johnson, Kaufmann and Zoid-Lobaton 1998), (3) leads to distorted public expenditures and investment, (4) state capture by elties and leads to phenomena such as purchased laws and policies (see Thomas et al. 2000, pp.144-50 and Anex 6, Hellman, Jones and Kaufmann 2000). Corruption is thus directly linked with the phenomenon of good or bad governance. Improvement of governance quality thus in the longer run leads to better economic performance. Let us first establish the link theoretically.

3. THEORETICAL INSIGHT INTO GOVERNANCE AND ECONOMIC GROWTH

The theoretical examinations into the importance of governance follow the simple logic of strategic behaviour of individuals and firms in economic environment. Economic environment is daily shaped by formal and informal institutional arrangements. Specially formal are heavily influences by the quality of governance or the lack of it and the presence of corruption, especially also elites. [Elites have an important impact on state officials both in developing and developed economies, but in developing economies this relation is usually termed as corruption, while lobbying is the more often used term in developed.] The presence of corruption, power of elites and weak governments undermine the efficiency, transparency, desire for development oriented policies and add to the uncertainty in economic environment. In such an environment, strategic behaviour of economic agents in dynamic setting will be significantly marked by uncertainty.

3.1. Governance, growth and corruption

The main characteristics of good governance based on the definitions provided are related with the institutional environment. First, good governance implies that rules must be enforced. This leads to lower uncertainty and lower transaction costs (see e.g. North 1989) which in turn leads to more efficient and dynamic economic activity. Second, when rules are being changed, they must be changed in a manner that benefits on average all economic agents not solely the representatives of economic elites (See Acemoglu 2005, Acemoglu et al 2003, Shleifer and Vishny 1994). Third, the politicians are the key element in the process of governance. A strong presence of political element and strong impact on institutional arrangement of day-to-day political disputes in the long run imply inefficiency and irrational rule changes. Also corruption and lobbying (i.e. close relationship between economic and state sphere) lead to a similar result. Good governance implies economic freedom in an environment of low uncertainty.
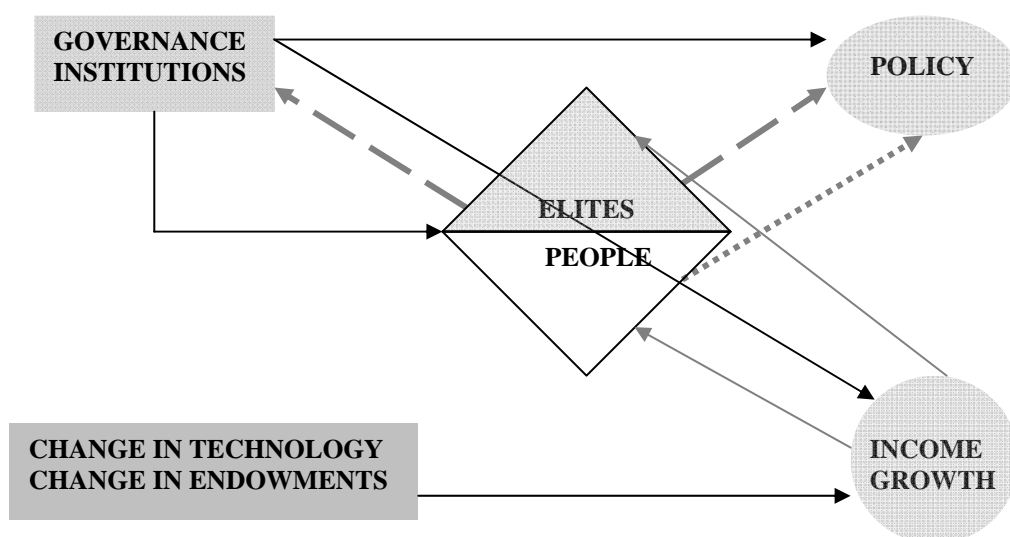

Figure 1.   Governance, growth and elites
Source: adjusted from Bourguignon, 2006

3.2. General equilibrium approach to governance and economic performance

Following the ideas of Chakrabati (2001) a two-period model of governance impact on economic agents and economic performance will be set up. Chakrabati examines the impact of corruption in a static single period model. We will turn around his model, focus on governance instead of corruption, reinterpret it and extend it to two periods. We shall also rely on the contributions, both theoretical and empirical, of Bourguignon, 2006, Johnson et al. 2002, Acemoglu 2003 and other already mentioned.

The basic framework follows Chakrbati (2001). Assume an economy with n agents. Each individual *I*, *i=1…n*, has a certain endowment of human capital, ki, and is also averse to risk, which is evident from parameter b_i in his utility function: $u_i=y_i-b_i\sigma^2$, where y_i is the expected income and σ^2, is the variance of y_i. Human capital, ki, is defined very broadly as the complete human contribution to the production process. At the aggregate level, the total output results from two basic inputs, *G*, governance quality and input, *K*:

$$Y = G * K = \sum_{i=1}^{n} G * k_i$$

Chakrbati (2001) examines the economy in a single period. We shall extend the model to two periods in order to examine the strategic behaviour of individuals and the impact of governance quality changes on economic behaviour of individuals. At the end of period 1, each agent produces an amount y_i (of human capital). This can be reinvested completely or not, depending on the circumstances the agent observes in period 1.

Initial situation, N individuals. Output depends on initial amount of human capital and governance quality (initial

Based on observed governance quality and consequently transaction cost exhibited in output loss,

Result: Governance quality reflects in transaction costs, which reflect in output loss and in the next period investment level. Thus model has dynamic consequences.

Period 1 begins.

Production depends on observed governance quality at beginning of period.

Governance quality improvements possible.

Period 2 begins.

Period 2 ends.

Figure 2.   Time-line of the game

Governance quality and wealth of nations are related. What is the cause and what the consequence has been widely dealt with (Dawson et al. 2003). As the average level of wealth rises in society, not only do members of the society become better off at the micro level, but this increase in wealth is reflected also in better organization of the society, better institutional arrangements, which in turn allows for more efficient production. Clearly, there is endogeneity present. Let us assume the following relationship between governance quality (as a sub-aspect of institutional quality) and wealth: $G = a\sqrt{K}$. Governance quality improves with the rise in wealth, but as the country gets richer and hence also institutional quality is

better, the improvements in governance are slower. This implies that the production function in the aggregate manner can be rewritten as:

$$Y = G * K = a\sqrt{K} * K = aK^{\frac{3}{2}}$$

$$Y = \sum_{i=1}^{n} G * k_i = \sum_{i=1}^{n} a\sqrt{K} * k_i$$

Equation also shows that individual production functions are depending on governance quality which in turn depends on the aggregate production level. Hence, the individual depends on the performance of the society as a whole.

Now, we will again use an assumption from Chakrbati (2001) that every individual has a 'dishonesty index', p_i, which lies in an interval [0,1], 0 denotes complete honesty, 1 complete dishonesty. The societal dishonesty index can be defined against the number of agents (N) or the amount of economic production power (K). Let's define the 'dishonesty index' against the productive power of the society and name the index 'cheating': $c = \frac{1}{K}\sum_{i=1}^{n} p_i k_i$. In each period, the cheating, allowed by poor governance raises transaction costs in society and leads to output loss. Hence poor governance acts like a tax on the economy, governance inefficiency tax. The agents notice the tax and the higher this tax or output loss due to poor governance, the lower the motivation in the next period will be. We could write $Y = (1-c)GK$, where cGK is the output reducing effect of cheating and is felt as tax by economic agents, especially by the honest ones. So, within a given governance environment, each agent chooses his dishonestly level. Therefore cheating is related to governance.

But cheating is risky and our agents dislike risk to a certain level. One may or may not get punished for cheating. The poorer the governance, the less likely is punishment. Nonetheless, even in very poor institutional environment one might get caught. Chakrbati (2001) defines y_c as income from corruption of completely dishonest person. Let us define y_c as income from cheating from one who always cheats ($p_i=1$). The motivation for cheating is higher, the bigger the reward is. Following Pistor, Xu (2002) we will assume that cheating has a higher yield if the wealth of the individual is higher (in the sense money makes money). With increasing wealth of individuals also motivation for cheating rises. That implies that the mean of the distribution of y_{ci} is proportional to human capital endowment of the agent. It also depends positively on the size of the whole pie (cY) (the bigger the whole pie is, the bigger the motivation for cheating and hence bigger the potential cheating income and the lower the possibility to get caught). The variance of the distribution, a measure of risk of getting caught, is positively related to the quality of governance (G). The risk of getting caught also increases with the personal wealth of the individual, k_i, because richer people are more visible and have more powerful enemies (although this assumption can based on real life experience also be turned around). A fully dishonest agent would have the following distribution: $y_{ci} \sim N(Gk_i,(1-c)Gk_i)$.

The agents do not have to be fully corrupt. They maximize their utility in the given economic/governance framework, which means that they choose the level of their cheating, c_i, from the range [0,1]. Each agent has an honest part of economic activity and some share that he can earn by cheating. The output from his honest activity depends on the governance quality and cheating tax and his individual human capital: $y^h_i = (1-c)Gk_i$, where h stands from return on his honest activity. Also, he can earn some additional income, y_c, which

depends both on the distribution of y_c and level of risk averseness. The cheating index is chosen so as to maximize the utility function.

$$\max_{p_i}[(1-c)((1-c)G)k_i + p_ik_i((1-c)G) - b_i(G(1-c)p_ik_i)^2$$

This yields a result:

$$p_i = \frac{1}{2b_ik_i(1-c)G}$$

The inclination to cheating is falling with the risk-aversion. It is also falling with individual capital endowment, because richer are more visible and hence the chance of getting caught is higher. Cheating is also more likely if the society as a whole is more prone to cheating, i.e. c is higher. And better governance decreases cheating.

Based on observed governance quality and consequently transaction cost exhibited in output loss, agents decide on investment level. Agents have also chosen their cheating levels.

Result: Model has dynamic consequences.

Period 2 begins.

Observed improvement in governance has the following impacts:
1. increases investment and investment rate
2. lowers cheating and individual's dishonesty
3. lowers dishonesty tax and hence transaction costs
4. increases output realized by agents, who in turn can invest more

Period 2 ends, period 3 begins.
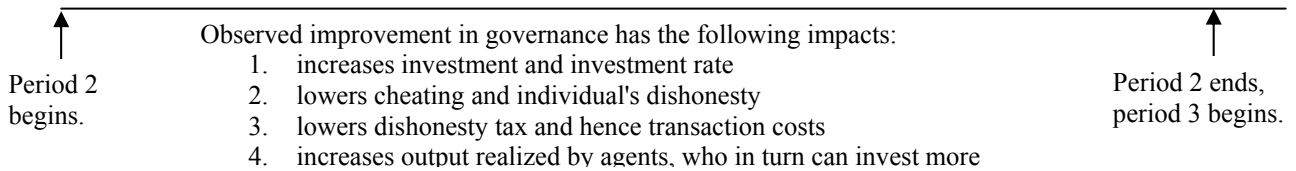
Figure 3.   *Period 2 and on*

Now, let's extend the model into the second period. At the end of period 1, each individual has chosen his level of dishonesty, p_i. Also, they have observed the cheating level, c, in the society. Also, they were directly hurt by output loss due to cheating (1-c), those less honest earned some extra cheating income. We will also assume that during first period, the state aimed at improving its governance quality, but the change is not evident till period 1 ends. It means that agents can only observe final states, but can not notice progress. The game at the beginning of period 2 and in period 2 is presented in figure 3.

Higher observed level of cheating in society will discourage people from investing. Let us assume that everyone can observe level of cheating in society, c, and quality of governance, G. Also, each agent feels the cheating tax. Even dishonest members of the society will be discouraged from investing by the fact that they paid cheating tax. Let us assume that each individual invests a share (1-100%) of output produced in period 1 into the production in period 2. Each individual will invest a share α into the future production. The share reinvested depend on the product obtained from his honest and dishonest activity in the previous period $\{(1-c)Gk_i + p_ik_i(1-c)G\}$. There is interplay between cheating and governance quality. The agent has at the moment not observed the improvement in governance quality. But if he decides to invest more and cheat more based on positive past experience, the chances of getting caught rise.

$$\Delta k_i = \alpha\{(1-c)Gk_i + p_ik_i(1-c)G\}$$

Inserting pi into the above equation yields the equation showing the impact of governance on investment:

$$\Delta k_i = \alpha\left\{(1-c)Gk_i + \frac{1}{2b_i}\right\}$$

The growth rate of capital and hence also growth of output, that is economic growth, depend on:

$$g_k = \frac{\Delta k_i}{k_i} = \alpha \left\{ (1-c)G + \frac{1}{2b_i k_i} \right\}$$

Investment rate (g_k) positively depends on governance quality, G, negatively on societal cheating rate, c, and negatively on risk averseness, b. Also, higher amount of existing capital implies slower investment rate.

Now, let us assume, that the government managed to improve governance. An improvement in governance will raise investment rate and will hence lead to higher economic growth:

$$\Delta g_k = \Delta \left(\frac{\Delta k_i}{k_i} \right) = \alpha \left\{ (1-c)\Delta G \right\}$$

An observed improvement in governance will also impact the level of cheating of each individual $\frac{\partial p_i}{\partial G} = -\frac{1}{2b_i k_i (1-c)G^2}$. An improvement in governance will also consequently lead to a lower cheating index $\Delta c = \frac{1}{K} \sum_{i=1}^{n} \Delta p_i k_i$. Output loss due to cheating and related transaction costs will be lower and consequently output will be higher $\Delta Y = \Delta G * K = \sum_{i=1}^{n} \Delta G * k_i$, ceteris paribus.

Together, an improvement in governance will have 2 impacts on economic performance. First, due to observed improvement in governance, agents will be motivated to invest more. Second, due to better governance during the second period also an indirect impact – due to less cheating transaction costs will fall, cheating tax will decline and more will remain with the agents. Consequently, as investment depends on production, the next period investment will be higher also due to this link.

There are several issues that have not been considered here, but will be a part of future research. First, the changes in governance quality are often under the influence of elites, economic elites, which are also those, who in general benefit more from a non-functional environment. The role of elites is also different in different political regimes (see Acemoglu, 2003), hence the difference between democratic and autocratic regimes should be examined more carefully.

4. WHAT DO DATA SAY ABOUT THE IMPORTANCE OF GOVERNANCE FOR ECONOMIC GROWTH

Institutional quality impacts economic performance in a given economy via numerous channels: impacts government efficiency, policy efficiency, dedication to changes, impacts the rule of law and hence impacts transaction costs in the economy. The poorer the rule of law, the more corruption is present, the more uncertainty is present in the economic environment. Firms are consequently more reluctant to invest, they have problems obtaining permits, problems with inspections, have to use informal ways and corrupt manners to do business activity normally, external finance is harder to obtain etc. these phenomena have been widely identified by numerous authors (La Porta et al. 2000, 1997, 1998, 1999, Campos and Nugent 1999, Ahrens and Meurers 2002)

The aim of this section is to present the extent of governance quality across transition economies with the help of the latest governance data for the period 1996-2005, published by the World Bank, and examine the differences in enterprise performance in transition economies with the help of BEEPS study.

4.1. The data

The first data set will be the data set provided by the World Bank study of governance. The data set provides aggregate governance research indicators for 213 countries for 1996–2005, for six dimensions of governance: (1) voice and accountability, (2) political stability and absence of violence, (3) government effectiveness, (4) regulatory quality, (5) rule of law and (6) control of corruption. The six governance indicators are measured in units ranging from about -2.5 to 2.5, with higher values corresponding to better governance outcomes. Detailed presentation of the data is available at the World Bank web page[4] and Kaufman et al (2006).

The Business Environment and Enterprise Performance Survey (BEEPS), developed jointly by the World Bank and the European Bank for Reconstruction and Development, is a survey of managers and owners of firms across the countries of Eastern Europe, the former Soviet Union, and Turkey designed to generate comparative measurements of the quality of governance, the investment climate and the competitive environment, which can then be related to different characteristics of the firm and to firm performance.[5] Till today, three studies have been conducted: 1999, 2002 and 2005. The analysis in this paper will be based on the 2002 study, for which the data is already publicly available. EBRD and World Bank in 2002 interviewed about 6,500 enterprises in 28 transitional economies: 16 from CEE (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, FR Yugoslavia, FYR Macedonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Slovenia and Turkey) and 12 from the CIS (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan).

4.2. Economic performance and institutional quality in transition economies

Institutional quality and consequently also governance quality differs among transition economies quite significantly. Transition was/is a process of massive socioeconomic change, as Blanchard and McKremer named it 'a process of disorganization' and later again reorganization. Transition as a reform process has included 5 major reform packs (Gomulka, 2002, p. 2): *micro-liberalization* (especially with regard to prices, trade and entry), *macro-stabilization* (especially with regard to inflation, public finances and foreign debt), *structural changes* (especially privatization and international trade), *new market institutions* (especially with regard to commercial codes, property rights and the financial/capital markets sector), and establishment of *safety nets*. The speed and dedication to reform has differed significantly among transition economies and therefore also economic results among transition economies differ quite significantly. The direction and the speed of institutional reforms has contributed to the success of the transition process, which was confirmed by several authors. Blanchard [1997], Falcetti et all [2002], Gomulka [1998, 2000], Moers [2002] focus strongly on institutional problems and economic growth. Also Berg, Borensztein, Sahay and Zettelmeyer [1999] and Fischer, Sahay and Vegh [1996] examined the relative roles of macroeconomic

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[4]http://web.worldbank.org/WBSITE/EXTERNAL/WBI/EXTWBIGOVANTCOR/0,,contentMDK:21045419~me nuPK:1976990~pagePK:64168445~piPK:64168309~theSitePK:1740530,00.html
[5] http://info.worldbank.org/governance/beeps2002/

variables, structural policies, and initial conditions in explaining the time path of output in transition economies. The results point to the importance of structural reforms [liberalization, private sector conditions] over both initial conditions and macroeconomic variables in explaining cross – country differences in performance and the timing of the recovery.
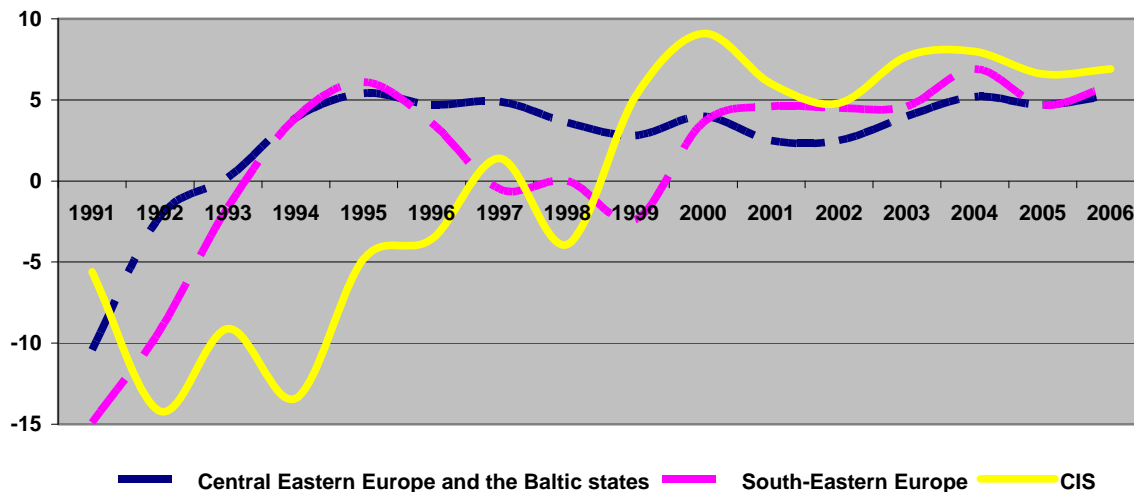

Figure 4.   Economic growth in 1991-2006* in selected transition economies
Source of data: Transition Report, 2006
* 2006 data is an estimate provided by Transition Report, 2006

Transition economies today are still a highly heterogeneous group of economies. By 2005 the economies of the CEE group and the Baltic have on average reached 133% (113% in 2002) of pretransition level of output [1989=100], South Eastern Europe is at 97% (in 2002 82%), while CIS economies are at 87% (in 2002 69%). Inflation has been stabilized in almost all economies. Mean inflation [all in 2003] in CEB [Central Europe and Baltic] economies was 3,3%, highest inflation rates were recorded in Lithuania [6,7%] and Estonia [4,1%], in SEE [South East Europe] mean inflation was 5,7%, among SEE economies Romania and Serbia recorded highest inflation with 9,5 and 17,2% respectively, while mean inflation in CIS was 9,9%, highest being in Uzbekistan with 21% [Transition Report, 2006]. The majority of economies in CIS [Commonwealth of Independent States] and SEE groups have exhibited a stable path of stabilizing inflation, despite enormous inflation rates in the past, which reached even 15600% [Georgia, 1994], and unmatched $16,5* 10^{12}$ in then Serbia and Montenegro in 1993 [Transition Report 2004, p. 56, 58]. But despite good growth and inflation performance and catching up, the differences among transition economies are still big.

These economic results are a reflection of a decade's mix of policies and reforms. Keeping in mind that transition has been above all an institutional reform, which required building a system of private property, market coordination, changed the role of the state and political elites [or has it not?], required changes in the legal system and required firms to get used to this new framework, whether or not it was well suited to their needs, these output results must at least in part be a reflection of the institutional reforms. And given that institutional reforms were directly dependant on the state, governance must have played a crucial role in the process of transition; influencing how the reforms were implemented, what the structure of reforms and policies was (potential impact of political and economic elites) and how efficient the state was in general.

4.2. Governance in transition economies: a comparative analysis

In part, the success of transition is also a reflection of the governance quality. A comparison of governance quality across transition economies reflects a mirror image of economic performance. Figure A1 in Appendix presents differences in 6 dimensions of governance quality as measured by the World Bank. The data presented are simple averages of country scores between 1996-2005. For comparison, also data for Great Britain, USA, France, Germany and Sweden, as examples of developed economies are added. Those, with best governance, are CEB economies and these economies have also recorded best economic results. On the other hand, FSU economies have been struggling long with the reform process and still today, their growth (unless the economy is rich in fossil fuels or other resources) is unstable and weak.
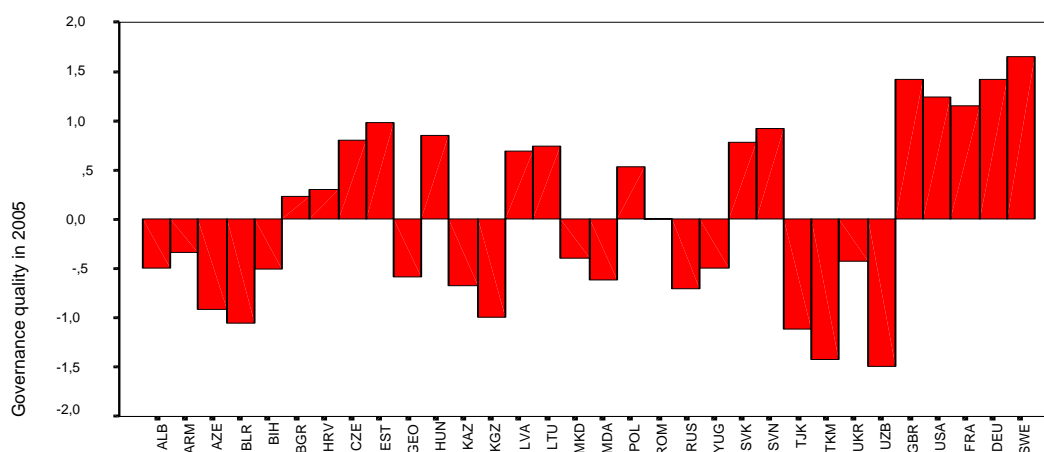
Figure 5.   *Average governance quality in 2005 in transition economies and selected developed economies*

Data: World Bank governance indicators, 2006

Figure 5 presents average governance quality (as simple average of all 6 dimensions) for 2005. On average, governance in transition economies is worse than in developed (see Appendix 1 for details on which country lags behind in which governance dimension). Czech Republic, Croatia, Estonia, Latvia, Lithuania, Slovakia, Poland and Slovenia are economies with best governance, while Tajikistan, Turkmenistan and Uzbekistan followed by Belarus and Azerbaijan had worst governance quality in 2005.

In the long run poor governance must be associated with poorer economic performance compared to economic performance in conditions of good governance. Rule of law, political stability, government effectiveness, combating corruption and voice and accountability are elements that determine the quality of business environment. In the short run, spells of high growth are possible in chaotic institutional conditions, also in the medium run experiences of high growth in poor institutional environment have been recorded (e.g. former Soviet republics abundant with natural resources like oil, gas and metals). But in the long run the rise and decline of nations will be co-determined by institutional factors (See Alston et al. 1996, North 1989). Let us examine how and why.

4.3. Governance and business performance in transition economies

Poor governance is expected to reflect itself in firm performance. Theoretically, poor governance is related with poor property rights protection, poor rule of law, corruption, state

capture and other related phenomena. Although some firms may prosper in such environment, in general and in the long run transaction costs in such an economy are higher and present an obstacle to investment, employment, technological development, foreign investment and are hence related to poorer economic performance.

The paper will focus on 27 economies, all but Turkey, transition economies. The data were obtained from the 2002 BEEPS study[6]. We left Turkey in the sample, because the country is known for its governance problems, therefore it does not represent a problem in the sample. The main focus will be on establishing, whether governance quality had any impact on economic performance on firm level.

4.3.1. Governance quality across the sample

First, we had to determine the quality of governance in each economy. We decided to rely on the firm's perception of their business environment and to derive governance quality on that basis. We chose question #80[7] from the BEEPS questionnaire as the basis for determining governance quality. Governance quality was defined as a simple average of fields we were interested in[8]: tax rates, tax administration, customs and trade regulations, business licensing and permits, labour regulations, economic policy uncertainty, macroeconomic instability, functioning of the judiciary system, corruption, organized crime, anti-competitive practices of producers, contract violations by customers and suppliers. These fields were chosen so as to capture six dimensions of governance: (1) voice and accountability, (2) political stability and absence of violence, (3) government effectiveness, (4) regulatory quality, (5) rule of law and (6) control of corruption. Governance quality perception was calculated for each firm. To obtain governance quality in the economy, simple averages were calculated and these will later be used for calculations[9],[10]. The results clearly indicate that the perception of firms about the governance quality in their economy is quite different from how the World Bank governance indicators evaluate governance quality, especially in some less developed economies in the group. See Figure 6 for results.

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[6] Data available at: http://info.worldbank.org/governance/beeps2002/.

[7] Also see http://info.worldbank.org/governance/beeps2002/ for the questionnaire.

[8] The scale went from 1 (no obstacle) to 4 (major obstacle) and 5 (do not know). All answers 5 were deleted, so that governance quality was not affected by 'do not know'.

[9] We also tested the principal components methodology, but simple averages worked better on further calculations.

[10] Kruskal Wallis test confirmed that the differences in governance quality among groups (defined as countries) were statistically significant.
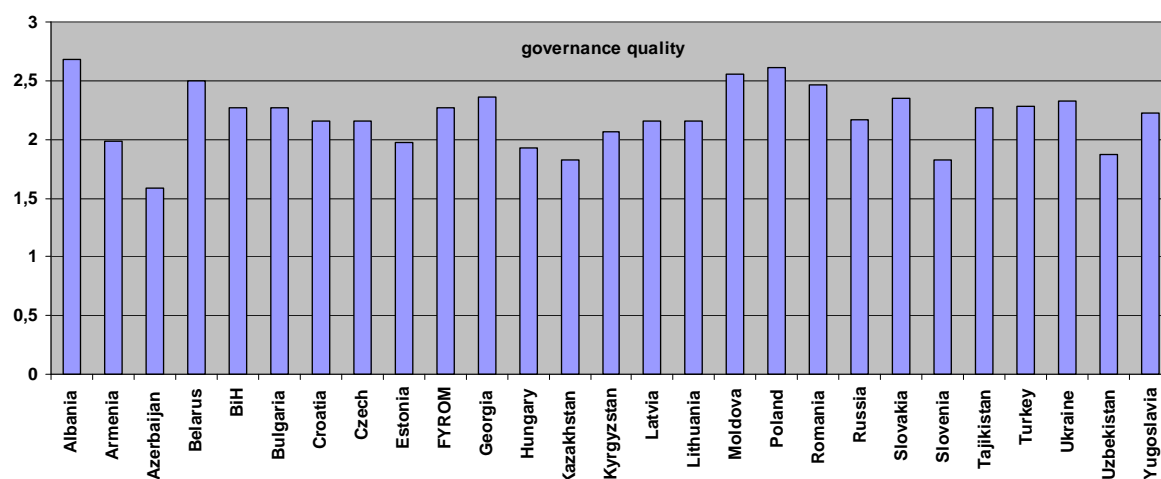
Figure 6.   Governance quality as perceived by firms in BEEPS 2002
Data: BEEPS, 2002

We also checked, how ownership impacts the perception of governance quality. The results are not at all surprising. Governance is least problematic for firms owned by the government or government agencies[11]. Firms, that were most critical to governance quality, were those owned by managers or investment funds. In these two cases, the profit motive is probably most clearly very important and thus also the perception of obstacles most critical.
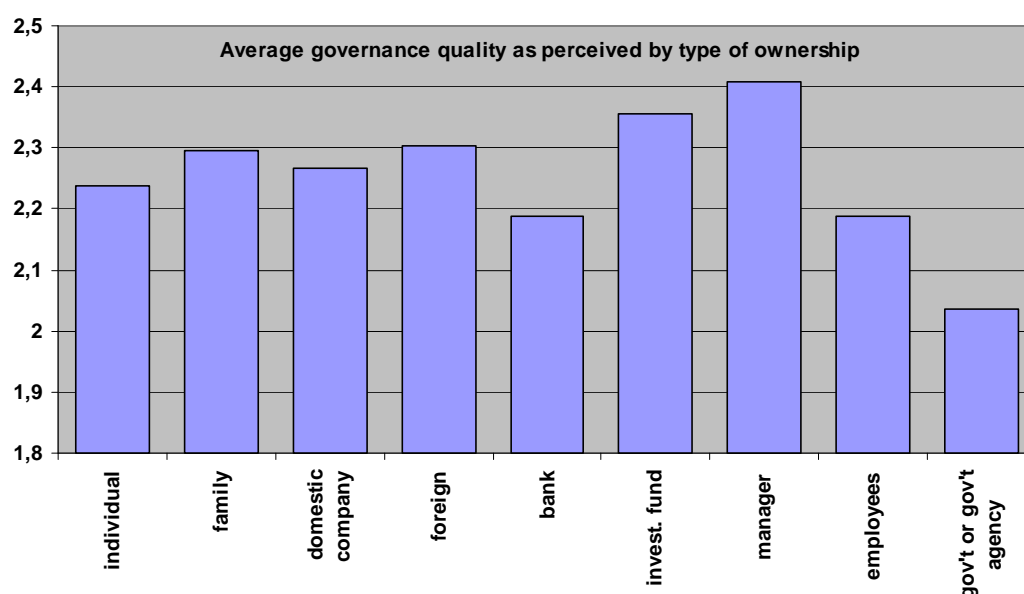
Figure 6.   Governance quality as perceived by firms by type of ownership in BEEPS 2002
Data: BEEPS, 2002

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[11] Data also show that state owned firms have some preferential treatment when in need of additional finance (e.g. they do not pay taxes, get subsidies more easily, and loans) and in some other areas.

4.3.2. Governance quality and business performance

Poor governance can significantly impact performance of firms. We will focus on how perceived governance impacted investment, employment, restructuring of firms in transition and financing patterns. Given that the analysis is very wide only some results will be presented here. Especially property rights are fundamental: entrepreneurs will not invest if they expect to be unable to keep the fruits of their investment. Country-level studies consistently show that less secure property rights are correlated with lower aggregate investment and slower economic growth (Knack and Keefer, 1995; Mauro, 1995; Svensson, 1998; Acemoglu, Johnson and Robinson, 2001). And governance quality is in many aspects closely related to property rights protection and motivation of managers.

Let us first examine investment performance of firms. Investment can have two sorces: external or internal finance. In countries, where property rights are poorly protected, external finance is harder to obtain and collateral requirements are higher. Thus firms invest more from retained profits and in general invest less than in countries with better property rights protection (See Johnson et al 2002). We will relate governance and investment in transition economies. The results show the unexpected result: on average, firms in countries with worse governance had higher reinvestment rates. But the correlation coefficient between governance quality and reinvestment rate is really weak, only 0,093 (but significant). The result can be a simple reflection of the lag in transition in those less developed transition economies were at the end of 1990s more intensely engaged in restructuring.
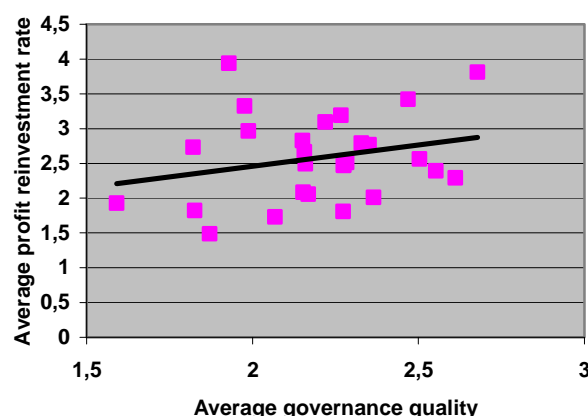
Figure 7.   The surprising result: poor governance is positively related to investment rate
Data: BEEPS, 2002

To examine the result more in depth, we performed an ordered probit analysis. The dependant variable was profit reinvestment rate, divided into 6 categories[12], higher category indicating higher investment level. Independent variables were governance quality subaspects, as defined from question 80. The results of various models tested indicate that among numerous factors, the impact of tax administration was strongly negative and significant and the impact of economic policy uncertainty and macroeconomic instability (but not when both enter the model due to multicollinearity) (For estimation details, see Redek, Godnov, 2006). This, together with the result that investment is positively related with governance, although weakly, indicates that tax administration (probably administration in general) is perceived as

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[12] 1=0%, 2=1-10%, 3=11-25%, 4=26-50%, 5=51-75%, 6=>75%

an important obstacle to investment. But otherwise, the positive impact of the transition cycle prevails.

Bur poor governance reflects itself in the expected manner in the financing of economic activity. Poor governance is related to financing working capital and new investment less with equity issue, internal funds, borrowing from local commercial banks other money lenders, leasing and trade credit. Such a pattern is expected, because poor governance is related to poor property rights protection and thus higher risk for outside lenders. There is a positive relationship between poor governance and financing from state-owned banks for working capital. Results are in Appendix 2. So, the size of investment was not related in the expected manner with poor governance, but that could be explained with the transition cycle. But financing patterns clearly are related to governance quality.

What about the relationship between governance and restructuring? The expected relationship would be that lagging behind in institutional development would cause also slow restructuring or at least slower. The data does indicate such a relationship. Simple correlations indicate that reorganization of departments within firms in terms of allocation of resources, responsibilities, budgetary resources and staff indicate that poor governance is related to less reorganization. The relationship is significant (0,05). Poor governance is also related to lower capacity utilization[13] both currently and in 1998/99 and the relationships are significant, although the relationship is mild (0,09 and 0,06).

The relationship between employment patterns and governance quality is harder to define. First, poor governance improvements would lead to slower company restructuring and thus holding on to excess labour. But on the other hand poor governance would also llead to slow job creation. But the results do not comply. Employment growth is not related to governance quality, not full time and not part time employment. Also, when firms were asked to state, what percentage of current employment would be their optimal (i.e. 60% means a reduction, 110% a rise in employment), poor governance was actually related positively with employment.

5. CONCLUSION

Governance is defined if simplified as 'the manner of managing the state'. Poor governance implies poor property rights protection, poor rule of law, corruption, state capture, political instability, government inefficiency, lack of accountability and so on. When defining the causes behind the thrive of nations, governance quality must be among the many causes. Lack of good governance leads to increased transaction costs in the economy, higher risk. It indicates poor business environment quality. And poor business environment has been proven to negatively impact economic performance.

We attempted to prove that governance quality was related to economic performance in transition economies, especially with regard to investment, employment, restructuring and financing using BEEPS 2002 data. Unfortunately, the data did not show the expected results. One of the major reasons in probably the fact that firm data like profitability, investment rate,

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[13] Q90A and Q90B were: In your judgement, what is your current output in comparison with the maximum output possible using the firm's facilities/man power at the time? If you are using your facilities/man power to the full, answer 100%; if output was 60% of capacity, answer 60%. What was the capacity utilisation in 1998/1999?

employment growth etc. reflect the transition cycle. The less developed transition economies (e.g. former Soviet economies) have poorer governance. But many have been growing quite fast. Not due to governance improvements, but many due to other factors. The same hold also for some more developed transition economies. Unfortunately, this effect can not be isolated.

The next steps in the analysis to improve the results will be: (1) we will make a comparison with the 1999 database and (2) probit analysis will be used to establish the relationship between some other variables of interest and governance components.

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APPENDIX 1: Governance quality

Figure A1: Average governance quality in the period 1996-2005 in transition economies
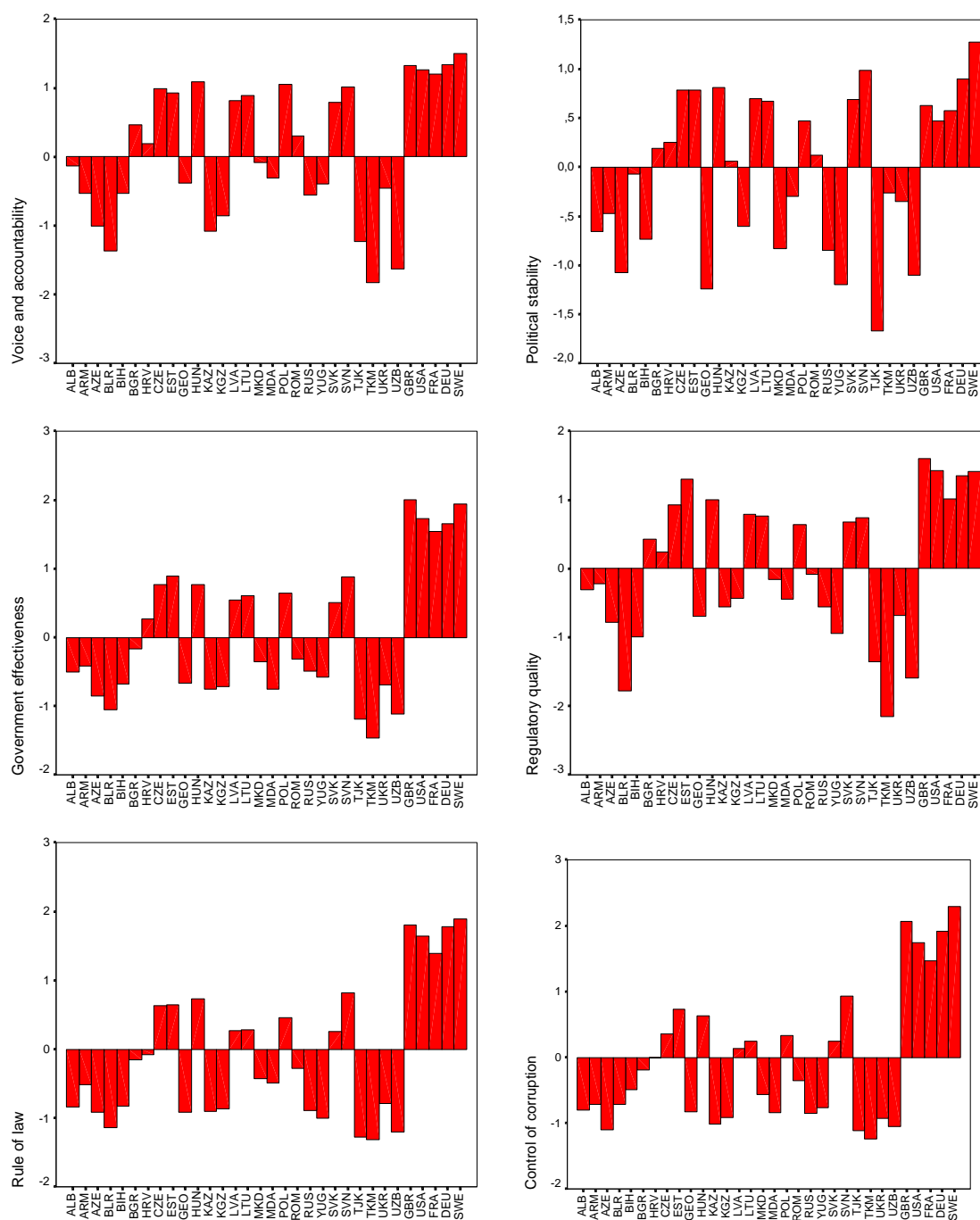
Source of data: World Bank governance indicators, 2006

Appendix 2: Correlation matrix and excerpts from questionnaire

Table A1: Correlation matrices: governance and finance

	governan	q64a1	q64a2	q64a3	q64a4	q64a5	q64a6	q64a7	q64a8	q64a9	q64a10
governan	1										
q64a1	-0,1515	1									
Sig	0										
q64a2	-0,2738	-0,512	1								
Sig	0	0									
q64a3	-0,0094	-0,512	-0,1528	1							
Sig	0,8148	0	0,2032								
q64a4	0,0166	-0,509	-0,288	0,0386	1						
Sig	0,7537	0	0,0794	0,7562							
q64a5	0,1099	-0,461	-0,420	0,2447	0,1961	1					
Sig	0,236	0	0,1737	0,1231	0,3475						
q64a6	-0,1053	-0,469	-0,112	0,088	0,051	-0,014	1				
Sig	0,0091	0	0,4271	0,3159	0,6866	0,9506					
q64a7	-0,126	-0,266	-0,187	0,0994	0,165	-0,089	0,1527	1			
Sig	0,0762	0	0,312	0,4621	0,3588	0,7706	0,0676				
q64a8	0,0061	-0,512	-0,114	-0,123	-0,131	-0,271	0,0441	0,1886	1		
Sig	0,87	0	0,3223	0,0425	0,1379	0,0951	0,5144	0,0589			
q64a9	-0,0822	-0,373	-0,084	-0,047	0,089	-0,327	0,0593	0,0707	0,2154	1	
Sig	0,1406	0	0,6497	0,6512	0,5802	0,5264	0,5616	0,6183	0,0007		
q64a10	-0,2105	-0,356	-0,126	-0,019	0,2986	-0,423	0,1616	-0,041	0,0231	0,052	1
sig	0,0385	0,0007	0,6183	0,9054	0,2998	0,3438	0,3613	0,8979	0,8846	0,8136	

	governan	q64b1	q64b2	q64b3	q64b4	q64b5	q64b6	q64b7	q64b8	q64b9	q64b10	q64b11	q64b12	q64b13
governan	1,000													
q64b1	-0,113	1,000												
sig	0,000													
q64b2	-0,308	-0,439	1,000											
Sig	0,000	0,000												
q64b3	-0,075	-0,597	-0,150	1,000										
Sig	0,143	0,000	0,413											
q64b4	0,007	-0,597	0,122	-0,075	1,000									
Sig	0,917	0,000	0,642	0,615										
q64b5	0,034	-0,526	-0,299	0,099	-0,010	1,000								
Sig	0,733	0,000	0,401	0,660	0,967									
q64b6	-0,099	-0,536	-0,158	0,119	-0,152	0,134	1,000							
Sig	0,081	0,000	0,532	0,354	0,489	0,752								
q64b7	-0,108	-0,434	0,600	-0,133	-0,187	1,000	0,150	1,000						
Sig	0,265	0,000	0,023	0,599	0,582	1,000	0,273							
q64b8	0,039	-0,422	-0,087	0,148	-0,003	-0,522	0,025	0,365	1,000					
Sig	0,605	0,000	0,694	0,263	0,986	0,067	0,867	0,095						
q64b9	-0,325	-0,488	0,006	0,165	0,072	-0,240	0,266	-0,392	0,330	1,000				
Sig	0,001	0,000	0,986	0,402	0,815	0,647	0,111	0,108	0,022					
q64b10	-0,269	-0,474	0,070	-0,352	-0,003	-0,532	0,350	-0,127	0,286	0,375	1,000			
Sig	0,118	0,035	0,881	0,289	0,993	0,468	0,356	0,787	0,641	0,320				
q64b11	-0,159	-0,542	-0,171	-0,286	0,032	-0,126	-0,005	0,359	-0,039	0,201	0,568	1,000		
Sig	0,004	0,000	0,424	0,006	0,845	0,681	0,979	0,189	0,799	0,457	0,054			
q64b12	-0,372	-0,688	0,080	-0,598	0,663	-1,000	0,097	-0,321	-0,995	-0,357	1,000	-0,176	1,000	
Sig	0,000	0,000	0,881	0,089	0,073	1,000	0,856	0,679	0,000	0,346	1,000	0,824		
q64b13	0,058	-0,567	-0,343	-0,489	-0,036	0,072	-0,192	0,155	-0,193	0,745	-0,756	-0,353	-0,599	1,000
Sig	0,524	0,000	0,406	0,076	0,954	0,893	0,649	0,770	0,757	0,255	0,454	0,318	0,209	

Data source: BEEPS, 2002

Q.64	What proportion of your firm's working capital and new fixed investment has been financed from each of the following sources, over the past 12 months?

▪ **INTERVIEWER: SHOW CARD: 24**

	Working capital (i.e. inventories, accounts receivable, cash)			New investments (i.e. new land, buildings, machinery, equipment)		
Internal funds/Retained earnings	%	Q64a1	607-609	%	Q64b1	707-709
Equity (i.e. issue new shares)	%	Q64a2	610-612	%	Q64b2	710-712
Borrowing from local private commercial banks	%	Q64a3	613-615	%	Q64b3	713-715
Borrowing from state-owned banks, including state development banks	%	Q64a4	616-618	%	Q64b4	716-718
Borrowing from foreign banks	%	Q64a5	619-621	%	Q64b5	719-721
Loans from family/friends	%	Q64a6	622-624	%	Q64b6	722-724
Money lenders or other informal sources (other than family/friends)	%	Q64a7	625-627	%	Q64b7	725-727
Trade credit from suppliers	%	Q64a8	628-630	%	Q64b8	728-730
Trade credit from customers	%	Q64a9	631-633	%	Q64b9	731-733
Credit cards	%	Q64a10	634-636	%	Q64b10	734-736
Leasing arrangement	%	Q64a11	637-639	%	Q64b11	737-739
The government (other than state-owned banks)	%	Q64a12	640-642	%	Q64b12	740-742
Other (SPECIFY SOURCES):......................	%	Q64a13	643-645	%	Q64b13	743-745

Figure A2.   Excerpt from questionnaire
Source: Beeps II questionnaire, p. 15-16

FINANCIAL SECTOR DEVELOPMENT IN CROATIA 1996 - 2006

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Abstract

Financial globalization represented by the international flows of private capital became a reality in transition economies of Central and Eastern Europe and in Croatia during the past decade and a half. Due to the instability created by the war conditions, the first serious inflows of private capital into Croatia started happening in 1995. Since then, by providing an important source of external financing, they have made an important impact on the growth of real variables but they have also significantly altered the financial scene and the structure of the financial markets in the recipient countries.

Financial markets form an extremely important link in channeling the available capital to its most profitable uses. It is in this capacity that well developed financial systems are crucial in achieving sustainable long term growth in an economy. Taking the comparative perspective with other transition economies, where appropriate, in this paper we will focus on the changes in the financial sector in Croatia that happened as a result of the entry of the main forms of foreign capital in the period 1996-2006.

Key words: *international private capital flows, transition economies, Financial sector, banking*

1.   INTRODUCTION

Financial globalization represented by the international flows of private capital became a reality in transition economies of Central and Eastern Europe and in Croatia during the past decade and a half. Due to the instability created by the war conditions, the first serious inflows of private capital into Croatia started happening in 1995. Since then, by providing an important source of external financing, they have made an important

impact on the growth of real variables but they have also significantly altered the financial scene and the structure of the financial markets in the recipient countries.

Financial markets form an extremely important link in channeling the available capital to its most profitable uses. It is in this capacity that well developed financial systems are crucial in achieving sustainable long term growth in an economy. Taking the comparative perspective with other transition economies, where appropriate, in this paper we will focus on the changes in the financial sector in Croatia that happened as a result of the entry of the main forms of foreign capital in the period 1996-2006.

First we show the overall transformations of the banking systems in the European transition economies. In the second part we focus on the developments in the Croatian financial system, namely on banks, pension and open-end investment funds, and insurance and leasing markets. In the concluding part we stress that a well developed financial structure together with the accompanying institutions, which include proper prudential regulatory framework and a well functioning legal system, are the main prerequisites for reaping full benefits of the financial globalization. Such structure minimizes the potential costs, which come with financial liberalization in the form of a greater vulnerability for the receiving countries to financial crises.

2. THE BANKING SECTOR IN EUROPEAN TRANSITION ECONOMIES

The extent to which capital flows can affect growth is largely determined by the level of development of the domestic financial system. The existing level of development of the financial system is reflected in its ability to exercise functions such as mobilizing savings, helping to allocate capital, and facilitating risk management. Domestic financial development is one of the most important links between capital inflows and economic growth. By allocating investment funds to those projects where the marginal productivity of capital is the highest, efficient financial intermediation improves the allocation of capital and it increases the overall or total factor productivity. Such developments are usually translated into higher economic growth.

The financial systems in the European transition economies have traditionally been "bank-centric". In other words, stock markets did not exist prior to reforms. Consequently, the first reforms of the financial systems in transition economies started happening in their banking system. First the introduction of a two-tier banking system lifted sectoral restrictions on special banks, permitting private ownership of banks, and allowing foreign banks to enter the market. Then came the liberalization of the licensing policy, and the implementation of a legal framework and a supervisory system.

These early banking sector reforms often resulted in a liberal licensing policy coupled with weak supervision and shortcomings in the legal framework. Adequate bankruptcy laws either did not exist or simply were not enforced. A large number of newly founded banks often engaged in unsound practices, while the state-owned commercial banks, which emanated from the specialized financial institutions under the old monobank system, suffered from an inherited burden of bad loans and an insufficient initial capital base. The banking systems generally lacked capital and banking skills, and political intervention, coupled with the uncertain economic and institutional environment in the state-owned banks, lead to a quick accumulation of bad loans and a number of banking

crises. During the ensuing large-scale bank recapitalization programs, substantial public funds had to be put up to prepare the state-owned banks for privatization.

After several years of turmoil, the sector stabilized due to a proven set of measures including separation of commercial banks from the central bank, liberalization of interest rates, cleaning up of the loan portfolios, restructuring and privatization of state banks and their enterprise borrowers, opening up of the banking system to private and foreign entities at an early stage in the transition process. According to the research done by the Erste Bank, the current level of development of the banking systems in the transition economies in Central and Eastern Europe in 2006 can be represented by the diagram in Figure 1:
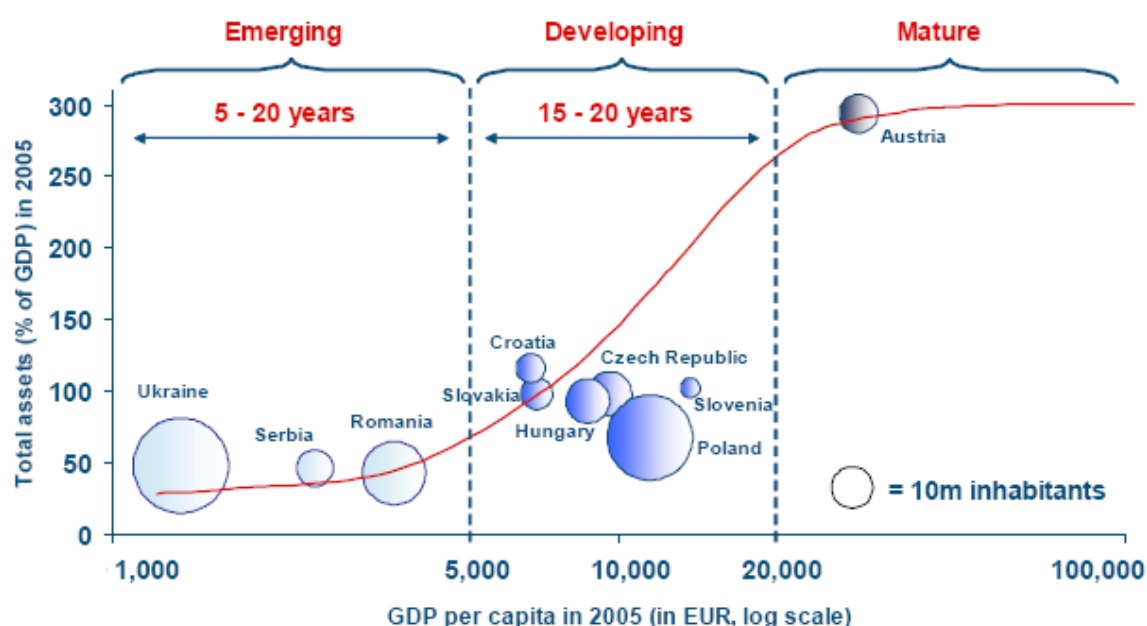
Figure 1: The development of the banking systems in transition economies in 2006
Source: Erste Bank: Sector Report – CEE Banks, March 2006

The diagram above illustrates the phase of the banking market developments in CEE transition economies in terms of their GDP per capita and their banking assets/GDP. The size of the bubbles reflects the size of the market measured in number of inhabitants. Austrian banking market is taken as representative of a mature banking market with limited growth capabilities. The total banking assets is almost 3 times higher than GDP and GDP per capita is over 20 thousand Euros. Developing countries are countries with GDP per capita between 5 and 20 thousand Euros per capita and their banking assets are near 100 of their GDPs. Those countries will need up to 20 years to catch up with Austria. Emerging markets have very low indicators and will need up to 40 years to reach Austrian level.

Table 1 lays out the main structural characteristics of the banking markets in the transition economies of Central and Eastern Europe:

Table 1: The banking market in transition economies of CEE (2005)

	No. of banks	Market share in %		Total Assets		Total Loans		Total Deposits	
		Foreign banks	TOP 3	EUR bln	% of GDP	EUR bln	% of GDP	EUR bln	% of GDP
EU Members									
Poland	61	70	37	152	60	77	30	99	39
Hungary	39	84	38	75	87	46	53	37	43
Czech R.	36	85	56	102	99	40	39	65	63
Slovakia	23	98	47	37	96	14	36	21	55
Slovenia	22	19	50	29	107	15	56	16	57
Estonia	13	99	88	12	112	6	56	5	47
Latvia	23	58	54	16	123	7	55	4	31
Lithuania	12	86	67	13	63	7	32	6	28
EU Candidates									
Croatia	34	91	54	35	114	21	68	19	61
Bulgaria	34	76	34	17	78	9	43	10	49
Romania	39	88	50	35	45	17	22	22	28
Turkey	31	19	45	249	81	96	31	152	50
Others									
Russia	1.205	9	39	285	45	159	25	156	25
Serbia	40	66	36	9	48	5	27	5	25
B&H	33	89	54	6	81	4	51	4	47
Ukraine	165	n.a	n.a.	36	50	23	32	18	25
CEE (17)	1.805	46	50	1.108	66	545	33	638	38
Euro area	6.403	25	-	17.895	224	9.141	115	7.395	93

Source: Local Central banks, ECB, Banking Associations and Supervisory Authorities (2005)

Given the new political and economic conditions as well as the changed perceptions of risk and possibilities to earn profit, the process of foreign bank entry in all transition economies intensified in the late 1990s and it continued into the 2000s. This is partly due to the "europeanization" process, which aims to unify the European banking markets. Allowing entry by foreign banks as part of overall financial liberalization in the transition economies altered significantly the scene on the domestic banking markets. Figure 2 shows the foreign bank share of total bank assets in transition economies as of July 2006.
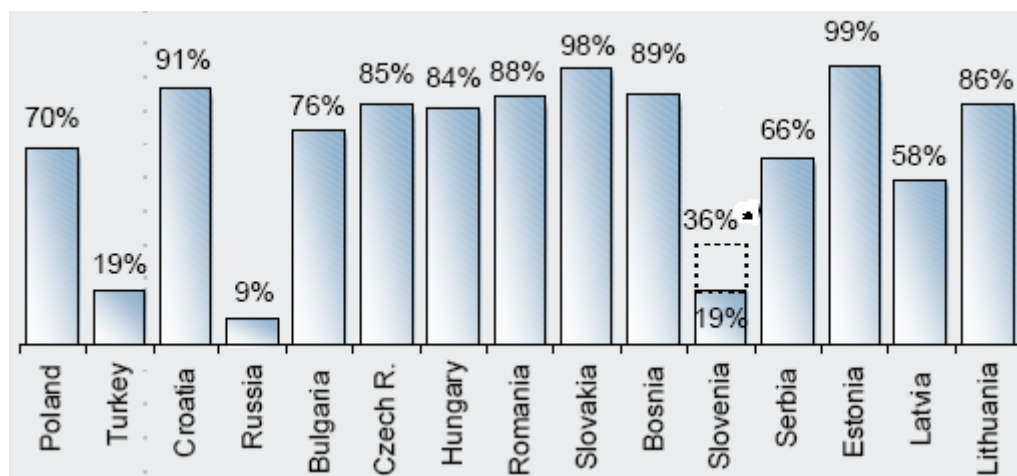

Figure 2: Foreign Bank Share of Total Bank Assets in Transition Countries
Source: BA-CA – Comparison of Banks in CEE 2005-06, July 2006
* Including total assets controlled by non-residents with less than 50% of management rights

With the exception of Russia, Turkey and Slovenia, foreign bank shares of total assets in local banks are high. Big European banks have expanded into CEE countries whose banking markets were underdeveloped but with huge growing potentials. In spite of initial political reluctance on the part of transforming economies to allow this process, studies have shown that it resulted in the increase in competition, bank efficiency, and the quality of banking products and services. The consequence of large foreign bank entry has been significantly better asset quality as well as an increase in overall lending under more favorable conditions than domestic banks.[1] By lowering the transaction costs of doing business such developments exert a positive impact on economic activity and the possibility of growth.

However, the most dynamic field of banking in CEE over the last few years has been loans expansion in which consumer loans took a lead as indicated by Figure 3.
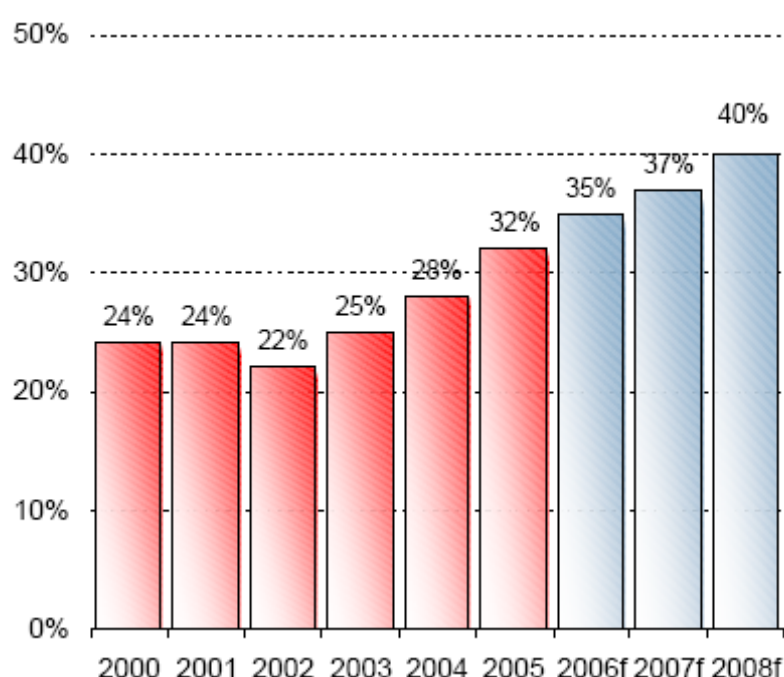
Figure 3: Evolution of banking loans in CEE (% of GDP)
Source: BA-CA – Comparison of Banks in CEE 2005-06, July 2006

Such exaggerated loan expansion led to concerns about macroeconomic stability in a number of countries in the region, triggering restrictive measures by some of the central bank. With loans often being used to buy imported consumer goods, the deficit of the trade and current account balance have markedly increased. High current account deficits are especially troublesome if they cannot be financed by non-debt creating inflows (i.e. foreign direct investment), and can seriously threaten a currency stability. The central banks of Croatia, Bulgaria and Romania and Serbia, all have introduced a number of different measures to restrict credit growth. If anything, the economies need more corporate lending, particularly to small and medium sized enterprises, in order to raise productivity and improve quality. Therefore, lending activities will continue to growth in a next few years.

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[1] Kraft, 2002.

Prospects for further growth of banking loans in the region is evident when one takes into account that the average loans /GDP ratio in EU is 107 percent. In Austria it is even higher, it is 136 percent. On the other hand, this ratio in CEE countries it is still over 50 percent. Croatia has the biggest share of loans in GDP – 67 percent. Countries with the smallest loans toward GDP are: Ukraine (13%), Romania (21%) and Russia (25%). Those countries have big potential for loans growth and other banking services as well. On such basis we could expect that the average share of loans in GDP in the CEE region will rise up to 40 percent till the end of 2008.

3. THE DEVELOPMENT OF THE CROATIAN FINANCIAL SYSTEM

At the end of December 2005, the total value of the Croatian financial system amounted to 323,5 million Kuna. The structure is shown in Table 2.

Table 2: The Croatian financial system as of December, 2005

	Total assets in bln of Kuna	%
Banks	262,3	81,1
Leasing companies	20,4	6,3
Insurance companies	16,5	5,1
Investment fund	12,0	3,7
Pension funds	12,0	3,7
Factoring	0,3	0,1
Total	**323,5**	**100,0**

Source: Croatian Financial Services Supervisory Agency

As shown in Table 2, like in many other transition economies, banks dominate with 81,1 percent share in total assets. Two following activities are leasing and insurance. The former has the share of 6,3 percent and the latter's share is 5,1 percent. Although still small by volume, investment funds have become a very important player in the future development of the capital market in Croatia.

Although banks still play the dominant role in the Croatian financial system, other segments are growing rapidly. That is important for overall Croatian economy because intermediary costs are decreasing, what leads to cheaper source of finance for corporate sector.

3.1. The development of the Croatian banking system

Based on total assets to GDP, the Croatian banking sector is some steps ahead of most of the other CEE countries. Following the crisis in 1998/99, the Croatian banking market showed heavy expansion. Privatizations commenced in 1999/2000, while the growth of foreign greenfield banks since 1997 has been dramatic. A special feature of the sector is the fact that more than 60% of deposits are held in Euros. Based on national bank regulations, credit growth is limited to 16%. Similarly to many other CEE

markets, Croatia has committed itself strongly to foreign ownership of banks with more than 90% of the Croatian banks having strategic foreign investors.

Commercial banks still account for around 81% of the whole financial system, although the competition of other institutions (investment funds, leasing, and insurance) is continuously growing. In 2005, exceptionally high growth was recorded in the leasing industry as alternative to ordinary credits.

Competition among the largest banks has increased over the last few years, even though the number of banks operating in the Croatian banking market fell significantly in the course of the consolidation process. The top six banks accounted for almost 80% of total banking assets at the end of September 2006. The banks assets in Croatia have two major characteristics. Almost 70% of liabilities are denominated in foreign currency or indexed to foreign currency (predominantly EUR), which results in loan portfolios also largely indexed to foreign currency. The second characteristic is the high share of retail loans (around 53% of loans to non-financial sector). Loans to households increased to 35% of GDP, growing significantly faster than loans to private enterprises (30% of GDP). Croatia has the highest ratio of retail loans in % of GDP among all CEE countries, but it is still well below the EU average.

Table 3: Croatia – Banking sector data

Data / Year	2000	2001	2002	2003	2004	2005
In HRK mn						
Total assets	109.949	142.606	165.622	195.278	225.546	255.320
Total loans to non-financial sector	60.364	74.284	96.218	110.374	125.708	147.341
Loans to private enterprises	35.891	42.882	51.723	53.810	58.810	58.643
Loans to household	23.298	30.122	43.073	55.001	65.277	78.556
Mortgage loans	8.258	9.450	12.363	16.896	21.398	27.571
Total deposits from non-fin. Sector	65.939	97.231	106.222	117.721	127.813	141.406
In % of GDP						
Total assets	72,1	86,1	92,3	102,8	108,9	115,1
Total loans to non-financial sector	39,6	44,8	53,6	58,1	60,7	66,4
Loans to private enterprises	23,5	25,9	28,8	28,3	28,3	30,2
Loans to households	15,3	18,2	24,0	29,0	31,5	35,4
Mortgage loans	5,4	5,7	6,9	8,9	10,3	12,4
Total deposits from non-fin. Sector	43,2	58,7	59,2	62,0	61,7	63,7
Yoy %						
Total assets	n.a.	29,7	16,1	17,9	15,5	13,2
Total loans to non-financial sector	n.a.	23,1	29,5	14,7	13,9	17,2
Loans to private enterprises	n.a.	19,5	20,6	4,0	9,0	14,3
Loans to households	n.a.	29,3	43,0	27,7	18,7	20,3
Mortgage loans	n.a.	14,4	30,8	36,7	26,6	28,8
Total deposits from non-fin. Sector	n.a.	47,5	9,2	10,8	8,6	10,6
Deposit rate*	3,4	2,8	1,6	1,7	1,8	1,6
Interest rate*	10,5	9,5	10,9	11,5	11,4	9,9
Interest margin*	7,1	6,8	9,4	9,8	9,6	8,3

* Weighted average over all maturities
Source: Croatian National Bank, Erste Bank - CEE Banks, March 2006, EBRD Transition report 2005

Table 3 contains extensive banking sector data for Croatia. During the last six years, banking assets have doubled, exceeded GDP for 15% in 2005. Banking loans followed such trend. The negative aspect of this trend in the past three years was that loans to households were greater than loans to the corporate sector. In spite of higher competitiveness in the banking market, interest margins remained almost unchanged during the last six years.

The Croatian banking sector has attracted near 3 billion Euros in FDI, but without significant influence on country's GDP. The main reasons for the foreign bank entries into the Croatian market were higher interest rate spreads and lower competition than in their home countries. The data in Table 4 show the acquisitions of the Croatian banks by foreign entrants.

Table 4: The acquisitions of Croatian banks (2000-2006)

Year	Bank	Buyer	PBV ratio
2006	HVB Splitska banka	Société Générale	4,7
2006	Sonic banka	Banco Popolare di Verona e Novara	3,4
2006	GKB	Veneto Banca	2,7
2004	Nova banka	OTP	2,7
2002	Riječka banka	Erste bank	1,82
2002	Dubrovačka banka	Charlem. Cap.	1,4
2002	Splitska banka	BACA	1,8
2002	Zagrebačka banka	UniCredito	1,7
2000	Varaždindnska banka	Zagrebačka bank.	1,22
2000	Splitska banka	UniCredito	1,74
2000	Riječka banka	Bayer LB	1,3
2000	Privredna banka	IntesaBCI	1,72
2000	Dalmatinska banka	Regent	1,4

Source: RBA Research, FIMA Research (2006)

The biggest wave of acquisitions happened during the year 2000, when five banks that represented 36,87% of the Croatian banking market passed on to foreign ownership. The average P/BV ratio was 1,47 and the average price for one percent of the market amounted to 14,10 million Euros. Four banks were taken over in 2002. Among them were Zagrebačka banka - the biggest local bank with 26,45% market share. Within two years, banks became more expensive. The average PBV ratio rose to 1,68. The trend was followed by average price of market share – one percent valued 16,37 million Euros. For one percent of market share UniCredito has paid the highest price – 23,67 million Euros.

After that foreign banks owned over 90 percent of the banking assets in Croatia. Space for new foreign entrants was limited with two state banks (that are still waiting to be privatized) and a few small private regional banks with very small market shares. When the investment fund Charlemagne Capital announced the selling of Nova banka, which was the last chance for international banks to acquire local banks with significant market share. There was strong interest shown among big international banks such as Intesa BCI, Erste Bank, Société Génŕale and OTP. The Hungarian OTP paid 2,7 book value and won the tender.

Last year three big international banks entered into the Croatian market. Two Italian banks - Banco Popolare di Verona e Novara and Veneto Banca. They bought two small domestic banks – Gospodarsko kreditna banka and Sonic banka. Société Générale took over HVB Splitska banka from Unicredito for 1 billion EUR. In terms of PBV, SG paid 4,7 book value – the highest price for one Croatian bank.

In the next few years Croatia expects GDP growth of 4,5%, which is much higher than in Western Europe, where origins of foreign owners of the Croatian banks are. That is the main reason why local banking market is still interesting to foreign banks.

3.2. Pension and open-end funds

A few years ago investment funds were unknown in Croatia, but today lots of Croatian companies and citizens invest money in these financial institutions. The amount of money under management in open-end funds is growing, and at the end of November 2006, it was 14,7 billion of Kuna as depicted by Figure 4.
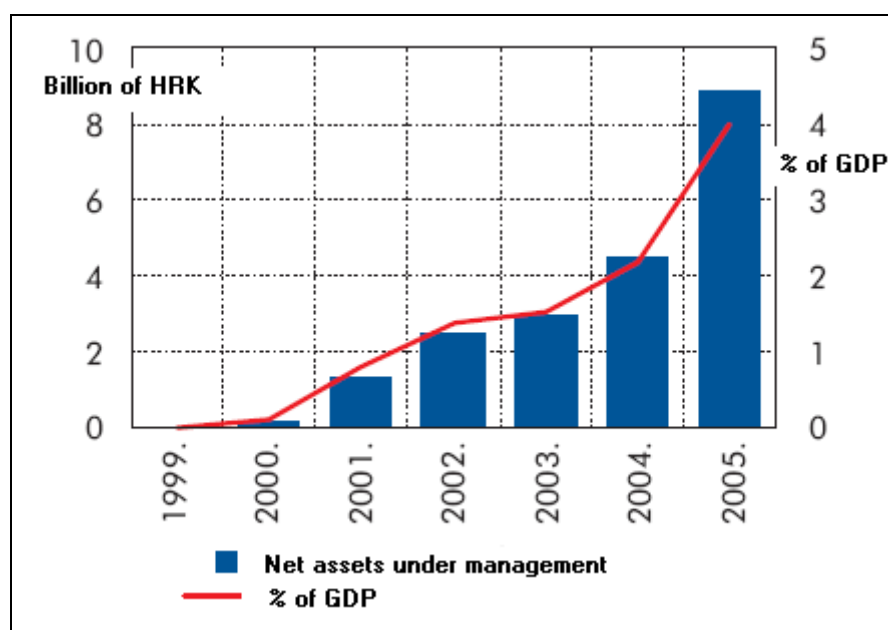
Figure 4: Open-end funds' assets in Croatia (1999 – 2005)
Source: RBA Research, Nr. 20 – January 2006

More than 60 funds operate in the market, mostly owned by banks. The biggest share holds money market funds that manage 62 percent of total money under management. As interest in banking deposits decreases, more money is transferred into investment funds, which offer higher returns. Such trend will continue, especially after Croatia joins the European Union, when tax on interest income will be imposed.

With the pension reform initiated in 2002, the first pension funds were introduced as well. Private pension funds' assets are shown in Figure 5.

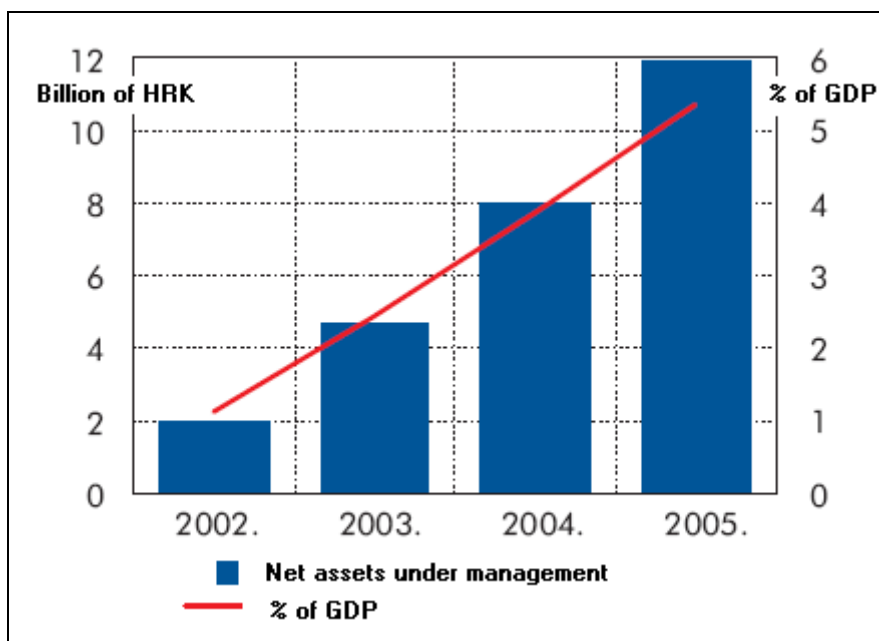*Figure 5: Private pension funds' assets in Croatia (2002-2005)*
Source: RBA Research, Nr. 20 – January 2006

At the end of 2006, four mandatory funds and 14 voluntary funds manage 15,5 billions of Kuna. According to the projections, until 2010 funds under management should amount to 10 percent of GDP. There are 14 voluntary funds active in the market with 0,4 billion of Kuna under management.

3.3. Insurance

The insurance business has a significant influence on the economical development of any country as it represents a substantial factor of stability of the financial system. The development dynamism of this sector in the Republic of Croatia ranks the insurance business among the sectors with highest development potentials. Total gross written premium for the year 2005 shows that Croatian insurance market achieved the total premium that accounted for HRK 7.4 billion, which represents 12.2% growth in comparison with 2004. The growth trend is especially notable in 2005 when the life insurance premium was increased for 22.2% in relation to the previous year. Figure 6 shows these developments.
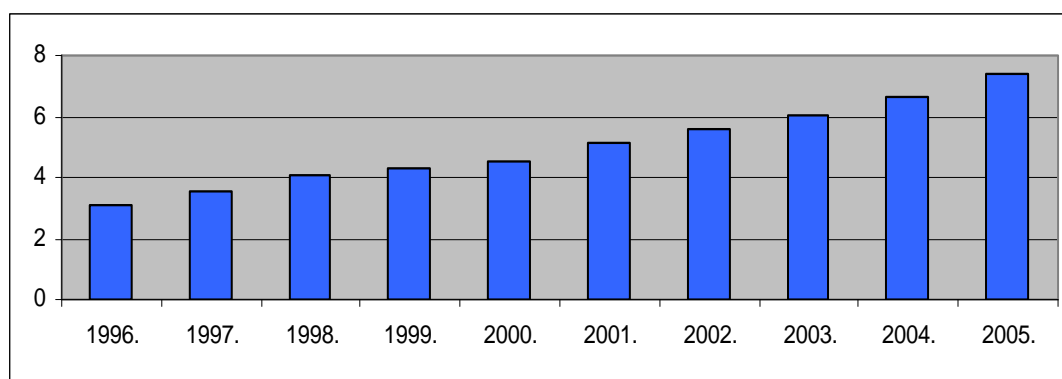

Figure 6: Croatia - Insurance premium development (in billion of HRK)
Source: Croatian Chamber of Commerce (2005)

The insurance share of the financial sector's total assets in 2005 was 5.4%, while the insurance industry's share in gross domestic product was more then 3%. The market is very concentrated because the first five insurance companies cover about 72% of market   In spite of solid insurance premium growth; the insurance sector did not grow as fast as banks and investment funds. Still dominate non-life insurance (cars and properties) properties, while life insurance has small share but with high growing rate.

Table 7: Croatia – Insurance premiums share of GDP (%)

Year / Data	**Life Insurance**	**Non-life Insurance**	**Total**
2001	0,55	2,47	3,02
2002	0,65	2,51	3,16
2003	0,72	2,48	3,20
2004	0,76	2,44	3,20
2005	0,84	2,40	3,24

Source: Privredni vjesnik, "Osiguranje", July 2006

As is shown in Table 7 insurance premium is stagnant and amounts around three percent of GDP. Non-life insurance displays a negative trend, while life insurance has been growing slightly but constantly. In the future we can expect faster growth of life insurance products, the main competitors to voluntary pension funds in developed countries.

3.4. Leasing

Leasing became very popular in Croatia in the last few years. In addition, it has been the fastest growing segment of the financial sector. Two years ago, it became the largest non-banking financial institution. Such rapid growth has surprised the local regulator. There were neither laws on leasing nor institutions that should regulate this business. Eventually, in December of 2006, the Law on Leasing Industry was passed and HANFA (The Croatian Financial Services Supervisory Agency) became the watch dog for this part of the financial market.
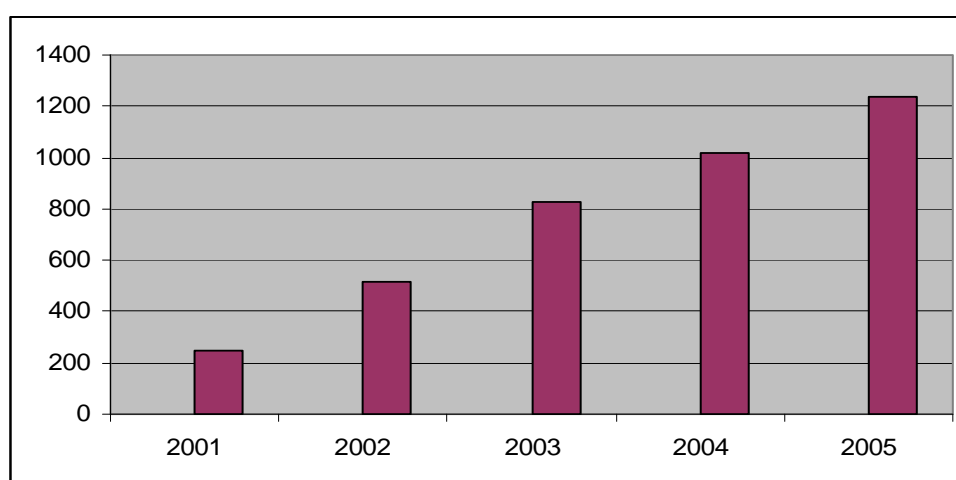

Figure 8: Leasing in Croatia – The value of new contracts in million of EUR
Source: Privredni vjesnik, "Leasing", July 2006

As shown in Figure 8, the value of new contracts rose from 200 million Euros to 1,2 billion Euros in 2005. The main reason for such rapid development of leasing in Croatia lies in the fact   that banks transferred part of their lending activities to leasing companies (which they owned) to avoid restrictive measures of the Croatian National Bank. Such activities are limited with the new regulation. Hence, leasing activities will slow down with the annual growth rate of 10 percent.
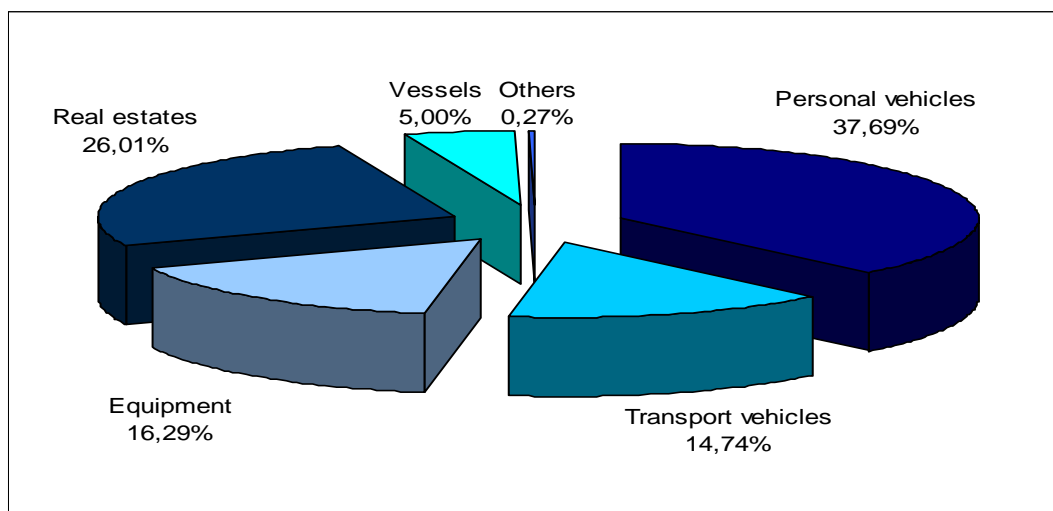

Figure 9: Leasing in Croatia – breakdown by segments (2005)
Source: Privredni vjesnik, "Leasing", July 2006

Figure 9 depicts the leasing structure in Croatia in 2005. Clearly the most dominating sector is vehicles with 52,43% share in total activities in 2005. Such trend is normal for emerging markets. In developed markets vehicles cover 35% of the market. In the future, we could expect a bigger share of equipment and real estate with decreasing share of vehicles in the structure of leasing in Croatia. Especially important is a higher share of the leased equipment. This means that companies, who are always the main drivers of growth, invest in new and modern capacity improving their own and the country's competitiveness.

4. CONCLUSION

In this paper we focused on the changing structure of the financial sector in Croatia in the past decade. The changed climate induced by the political and economic reforms in Central and Eastern Europe attracted significant inflows of international private capital that changed the landscape on the transition economies' financial markets. Old inefficient structures were gradually replaced by modern market forms and new regulation is being put in place to make the new structures work as efficiently as they are intended.

The financial market in Croatia followed the same pattern of change as was happening in other transition economies in Europe. Its banking sector remained dominant, but other forms of financial intermediation developed and are still growing. They are primarily pension and open-end funds, insurance and leasing. The emergence (and dominance) of foreign owned banks exerts significant influence on how business is run

and how the financial sector operates. Banks in foreign ownership were a main driver of the financial sector development. As a competition in banking sector grew, they started with introduction of other financial services (investment funds, leasing, factoring). Although, the Croatian financial sector is "deeper" than ever, obviously it is and will stay "bankocentric". Namely, a few financial groups in which center is a bank, dominate in the market. Today, Croatia has the most developed financial sector among the former Yugoslavia countries.

Such development has positive and negative consequences for the Croatian economy from macroeconomic point of view. Positive is that intermediary cost of financing is constantly declining, which enabled local companies to get cheaper capital for a new business projects. Thanks to growing number of strong institutional investors (primarily investment and pension funds), more and more companies have decided to raise fresh capital on the stock exchange because that is cheaper than banking loan. Few years ago, there was no possibility for such scenario, since we haven't had any institutional investors on a buying side.

The main objection to the financial sector development and its banks domination is high level of foreign debt that reached 80% of the Croatian GDP. Since loan demand in Croatia is still high and such demand could not be financed by local savings, banks have decided to take loan abroad (where interest rates were low) and to place it here with significant margin. That led to intervention of the Croatian National Bank, which implemented restrictive measures in order to slow down such dangerous trend for macroeconomic stability. Avoiding those measures, banks pushed leasing as a special purpose vehicle to continue with lucrative business in Croatia. Namely, Central bank was not in charge for leasing – a new financial service. A new watch dog for leasing and for all non-banking services was established in 2006 - HANFA (The Croatian Financial Services Supervisory Agency).

As the main challenge in the future development of financial sector in Croatia we see creating and putting in place proper prudential regulation and legal system to insure the stability of financial markets. That is the main prerequisite for their successful operation and safeguard against possible financial crises. It appears that the speed of financial sector development has surprised local regulators, those who were not ready and skillful to keep things under control. If they don't react to the change rapidly, they could become the main obstacle to further development of the financial sector in Croatia.

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ROMANIAN INVESTMENT POLICY AND THE ROLE OF THE FOREIGN COMPANIES IN ECONOMY

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1. OVERVIEW

In a world of globalisation, the capital plays a very important role, conducts our life in a totally different way than fifteen years ago and will have a deeper influence, in the next decades. The investment activity has a central position in economy because it is an instrument for achieving economic growth. Among different forms of investments, foreign capital and foreign direct investments (FDI) seem to be the most dynamic and advantageous for the countries from Central, Southern and Eastern Europe, for the both sides, investors and receivers. At social level, investments have a regulation/compensation role in labour employment and life quality improvement. The implementation of certain investment projects results in modifications on labour market, thus generating an additional need of labour force in the sectors preparing and carrying out investment actions, i.e. research – design, services or constructions, that operate the new production capacities. Investments may be also considered as a link between generations, by creating new jobs for the young generation (avoiding migration), as well as by the fixed capital that receives from previous generations.

In the last fifteen years, different concepts concerning investment policy, regional or rural development and the role of FDI in the future economic stability, in pre-accession period and after the accession into European Union structures, have developed in Romania. Unfortunately, the policies suffered of the lack of poise and the decision-makers showed a totally lack of consistency with grave negative effects on the next decision steps.

In many years during transition, Romania did not have a good image on the international market or in the eyes of the investors and played an unsignificant role in the "FDI equation" at the regional level (about 6% from regional FDI). For the foreign investors, the general climate of the economy was not the best in attracting strategic investments and that was the main barrier against economic development.

In Romania, the FDI activity was different from year to year. The evolution of the FDI was sinuous but increased in the last three years. The main sources of the FDI can show us the profile of the investors in Romania and the power of the Romanian market. FDI analysis by sectors is an important measure of the Romanian tendencies and show us which are the main branches that sustain the economy. In this "equation", agriculture and the rural area play an important role, because the less developed regions are mostly rural, with a large number of

agricultural workers, unemployed workers (or hide unemployment), little performances and efficiency. All these will have a direct influence on the evolution of the sectors and regions inside EU market.

In this study, we use data provided by the national institutions specialized in FDI monitoring in Romania, as well as the data of certain international institutions (UNCTAD). The National Office of The Trade Register (NOTR), National Institute for Statistics (NIS), Romanian Agency for Foreign Investment (RAFI), The Romanian Authority for State Privatization (AVAS) and the National Bank of Romania (NBR) provide the data for Romania, at sectoral and regional level. It should be mentioned that the FDI calculation methodology used by the National Bank is conform to the International Monetary Fond (IMF) manual of the balance of payments, fifth edition/1993 (also used by UNCTAD); however, the methodology of national institutions for FDI analysis and monitoring (NOTR and RAFI) is different. According to NOTR definition, the foreign capital invested in Romania is equal to capital subscription to matriculations, plus subscriptions through capital increase mentions, minus share capital transferred by non – resident shareholders/associations to resident shareholders/associations, minus share capital subscribed to firms erased from the trade register.

2. FOREGN DIRECT INVESTMENTS IN ROMANIA

2.1. Institutions, legal frame and tendencies

The economic opening after 1990, the reform process, the restructuring and privatization of the state enterprises, the switchover from command to market economy have produced important changes both in the legal structure of economic operators and in capital structure.

In Romania, the policy makers' position as regards foreign direct investment was different compared to the neighbor countries, both in its contents and in consistency. Thus, a very good example in the case of Hungary, where the main conclusion on which the society and the political class from Hungary reached a consensus in early '90s was the following: in order to have a successful reform, foreign direct investments should be encouraged, mainly those investments made by transnational corporations (TNC). A practical consequence was that TNC privatization resulted in a fast increase of exports that subsequently led to economy stabilization and further attraction Greenfield investments. In certain Hungarian specialists' opinion, such as Prof. Peter Mihalyi (2001), the above-mentioned approach (first privatization, then Greenfield investments) was essential for a successful transition in Hungary. At the same time, it is worth mentioning that the great foreign capital inflows in certain neighbor countries were mainly determined by the partial privatization of certain public utilities (telecommunication, electric power supply networks), of certain airlines or state banks. From this point of view, Romania's position was totally different.

At the same time, in order to underline the above-mentioned facts, one can also mention the general investment environment characteristics, determined among others by the social, cultural and educational background in which investors evolved throughout the transition period. Citizens receptivity, their education and training, their flexibility and mentality have been decisive, mainly in the first years after 1989.

The National Agency for Regional Development (comprising the former Romanian Development Agency) is responsible for private business development. It provides information on investment opportunities, legal advice, and assists potential foreign investors to identify joint-venture partners and implement projects. Under the Foreign Investment Law No. 35/1991 and its amendments, foreign investors are granted national treatment and benefit from the same legal framework as local investors regarding guarantees and incentives. Although foreign investors may establish wholly foreign-owned enterprises, joint ventures are usually the pattern. The unrestricted transfer of profits and of invested capital is possible. Protection against expropriation is available. There are no performance requirements imposed as a condition for establishing, or expanding an investment. According to current legislation, a Romanian company in which foreign investors hold a controlling stake shall be considered as having the same nationality as its foreign investors. Any commercial company, irrespective of nationality, may acquire ownership rights on real estate for its productive activity. Moreover, foreign investments in Romania are governed by the provisions established by the foreign investment act, which were in force at the time of incorporation, unless a subsequent law contains more favorable terms.

According to the 1990 Commercial Company Act, foreign contributions to investment capital may be paid in cash, in kind, or in rights in any of the following forms: partnership, branch, wholly foreign-owned company, limited liability company, or joint-stock company. Foreign investors may purchase shares in existing entities, or engage in activities through the privatization process. The incorporation of an entity has to be made with the National Office of the Trade Register (NOTR) and the local taxation office. Corporations have the right to retain their foreign exchange earnings for their transactions. Concession in oil operations may be granted by the National Agency for Mineral Resources. Activities in banking are monitored and regulated by the National Bank of Romania (NBR). Since late 1999, the country revised its taxation system to bring it more in line with the EU legislation. While the tax base has been enlarged, the corporate income tax has been lowered to 25 per cent from 38 per cent (16 per cent in 2005) and the VAT reduced to 19 per cent from 22 per cent. These measures aim at enhancing exports by imposing only a corporate profit tax of 5 per cent on profits derived from exports. Romania provides for tariff preferences to entry of European Union goods under its association agreement with the EU. With a view to further encouraging FDI inflows, since June 2001 and under the Law No. 332/2001, any new investment (except in banking and insurance) of over $1 million is granted a fiscal credit of 20 per cent of the invested amount. An exemption from customs duties on imported machinery and equipment necessary for the capital base of a company and an accelerated depreciation of 50 per cent on fixed assets during the initial year of operations are authorized. Any loss incurred during a fiscal year may be carried forward during the next 5 years from the taxable profit. These investments also benefit from the guarantee of any change in the legal regime during their entire existence. Under the Free Trade Zone Act No. 84/1992, activities performed within an FTZ are exempt from the payment of VAT, customs duties and profit tax during the entire period of a company's operations.

In the transition period, many times the problem of creating facilities to the foreign investors was put such us, it was looked for enforcing the investment low framework and also for their treatment. The rights enjoyed by the foreign investors in the past and in the present will be synthesized as following:

• Rights granted to all investors (national or foreigners): The right to invest in any field and any legal juridical form; The right to be equally treated, regardless the nationality,

residence or headquarters; The right to benefit by guarantees against nationalization, expropriation and other measures with an equivalent effect; The right to benefit by legal customs' and taxes' facilities; The right of assistance in fulfilling the administrative proceedings; The possibility for all investors – legal persons to acquire any real rights on any assets, real and personal estate, according to the law for their activity's needs, except the land which can be acquired only by the Romanian legal and natural persons; The right to convert in foreign currency the sums in *lei* resulted from the investment activity and to transfer the currency in the origin country, according to the currency conditions settlements; The right to choose the juridical or arbitral courts competent to judge the litigations that may appear.

- Rights granted only to the foreign investors (the law stipulates that the foreign investors benefit by the same rights and obligations as the national investors, having in addition some specific rights): The right to transfer abroad without any restrictions, after paying the legal taxes, the incomes resulted from an investment done in Romania, transfer that will be made in the investment's currency; The litigations regarding the rights and the facilities granted by the Romanian law to the foreign investors, between the Romanian state and these investors, will be judged after a different procedure than the ordinary one.

- Specific facilities granted to the direct investments with a significant impact on economy (in order to encourage the investments, in Romania was promulgated the Law no. 332/2001 regarding the support of the direct investments with an important impact on economy. According to this law, these are the investments with a value that exceeds the equivalent of 1 Mil. $): Duty free taxes regarding the imports of technological equipments, installations, measure and control devices, automatizations and software products necessary for the implementation of the investment, with the condition that the imported assets to be at most 1 year old before their importation date and that they have never been used; The delay of the V.A.T. payment for the new assets necessary for the investment's implementation, bought from Romania or imported, to the date of 25th of the next month from the date of the investment's implementation; The deduction from the taxes point of view in the month of the investment's implementation, of a 20% quota from the entire value of this; The possibility to recover the fiscal losses from the benefit in the next 5 years; The possibility of using the accelerated amortization for the investments, without any other preliminary approval.

- Facilities granted to micro, small and medium size enterprises: By the Law no. 133/1999 and the Ordinance no. 24/2001 were approved some economic, financial, fiscal and banking facilities for the registration, development and stimulation of the micro, small and medium size enterprises; The inventory made above is only one part of the normative acts issued in time, wishing only to create a most favorable frame for the investment activities.

At present, there is a Government intention to adjust the legal frame according to the new conditions on the market and due to the accession into EU, in January 2007. Thus, the new regulations will be addressed to all investors, foreign or national, which will benefit of the same treatment and will align the Romanian legislation to the EU practices.

2.2. Investment absorption capacity

After the last EU enlargement in 2004, the major foreign investors in Central and Eastern European Countries (CEEC) have changed their policy and started to invest more in South Eastern European Countries (SEEC) than before. According to RAFI data, in 2005 about 12 Bil. $ were invested in SEEC which is an absolute record for this region. Among the countries in the region, Romania was the main destination with more than 51% from total (6.1 Bil. $, green field and privatization). It was followed by Bulgaria with 2.2 Bil. $.

Watching the evolution of the FDI in Romanian economy (Figure 1), we can observe that it was characterized by constant and slow incomes for almost entire period and, in the same time, the lack of privatization in "key moments". Exceptions from this „rule" were the last three years when a new trend was established due to the policy of the Romanian Government, the policy of the foreign investors after the last EU enlargement and the forecasts for the Romanian accession into EU in 2007. At the end of 2005, the FDI total stock in Romania was 16,731.6 Mil. $.
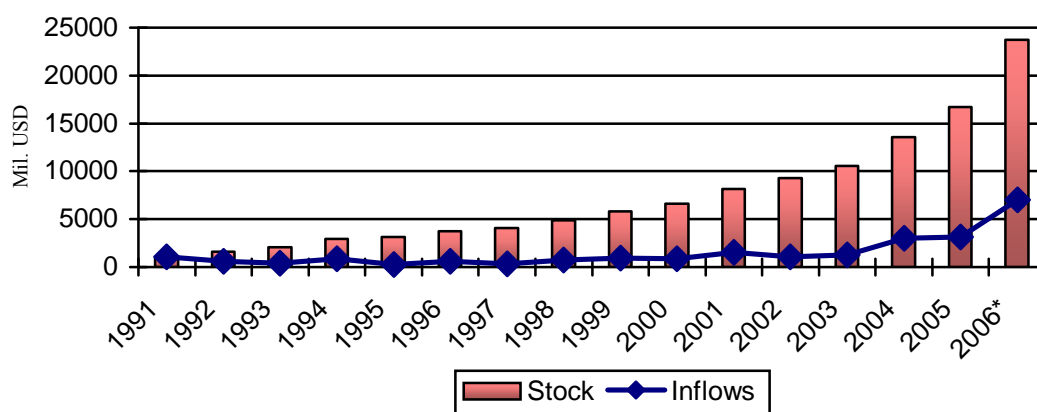
Figure 1. *The evolution of the FDI stocks and inflows in Romania (1991-2006).*
Note: 2006* = Forecast

The general investment climate in the last years, better than in 90s, made possible an improvement of the collaboration between Romanian administration and investors. In the same time, the perception of the Romanian business environment among foreign investors has become positive and, as a result, the ratting, which was given to Romania by international financial agencies, was upper. That was an asset and encouraged the investors. Even for 2006 the previsions are favorable and the Romanian authorities expects FDI inflows at an upper level than in 2005 (we except the inflows from the main privatization made in 2006 that can increase the stock up to 10 Bil. $).

From table 1, we can distinguish three forms of attitude of the foreign investors during transition (Voicilas, 2006):

- A defensive attitude, which characterizes the majority of the period, with little FDI, less than 6% from total (period 1992-2000);

- A prudent attitude, which characterizes a few years of the period, with a FDI policy in expectation and investments between 6-10% from total (1991, 2001-2003);

- An offensive attitude, which characterizes the last years, with intensive investments, more than 15% from total (2004-2005).

-

Table 1. FDI tendencies in Romania (1991-2005)

Indicator	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Inflows in total stock (%)	6.32	3.43	2.50	5.27	1.42	3.43	2.15	4.52	5.64	5.02	9.21	6.45	7.70	18.12	18.82
Average stock (Mil. $)	1058.3	815.8	683.1	732.8	633.8	623.7	586.0	607.2	644.7	664.1	743.8	771.7	811.5	970.1	1115.4
Average stock per capita (Thou. $)	48.8	75.3	94.5	135.2	146.2	172.6	186.9	221.8	265.4	304.1	375.2	424.9	484.4	626.0	771.7
Average inflows per capita (Thou. $)	48.8	26.4	19.3	40.7	11.0	26.5	14.3	34.8	43.6	38.7	71.1	49.7	59.4	139.9	145.3

Note: we considered the population constant at the level of the year 2002 (21,680,974 inhabitants);
Source: Voicilas, D.M., 2006, FDI' Concentration - a territorial and sectoral analysis in Romania, Special study in „Foreign Investments in Poland – Annual Report", Supervised by Janusz Chojna, ISSN 1231-1111, Foreign Trade Research Institute, Warsaw, Poland; Calculations based on NOTR Database; NIS Database.

"The concave evolution" of the average FDI in total stock, in the whole period, is an evidence of the attitude of the foreign investors and their response to the political and economical climate in Romania (Voicilas, 2006). The concavity is a result of the withdrawal of the foreign investors from the Romanian market, for a period of time, due to the lack of political stability and reforms in economy during 90s. The changes in the last years have attracted the investors again.

The last two indicators from table 1 show us that Romania recovered a part of "the time lost" in 90s and it is closer to other countries in Central and Eastern Europe (CEE) or even some countries from South and Eastern Europe (SEE), like Croatia and Bulgaria. For many years, Romania suffered at this chapter even in comparison with other SEEC.

In these conditions, Romania becomes a principal receiver of FDI in SEE. It is still behind countries from CEE, like Poland, Hungary and Czech Republic (taking into account indicators like FDI stock, FDI inflows, average stock/capita or average inflows/capita), but the tendencies are encouraging. With about 1/3 from the total investments made in these countries (analyzed separately) in the last fifteen years, the gap between Romania and CEEC is still big.

If the FDI inflows are quite at an encouraging level, not the same can be said about the investments made by Romania on the foreign markets (Table 2). This proves a low investment power, the lack of capacity to generate additional funds that should be used for medium and long-term investments in other countries, even with a low macroeconomic maturity level. In fact, the same trend appears in the whole countries in the region and the last years asserted this shape. The countries in the region continue to be FDI receivers due to their needs and attractiveness.

Table 2. Romanian FDI Outflows

Indicator	1991	1992	1993	1994	1995	1996	1997*	1998*	1999	2000*	2001*	2002	2003	2004	2005*
% in CEE	8.039	5.894	2.261	0.002	0.270	0.001	-	-	0.650	-	-	0.328	0.796	0.985	-
% in SEE	100.00	17.778	20.877	0.050	10.309	0.029	-	-	18.265	-	-	2.727	38.897	42.323	-

Note: * = negative value;
Source: Calculations based on UNCTAD Database.

As regards FDI outflows, at CEE level Romania did not have important contributions, the market share was generally less than 1%, with small exceptions at the beginning of the investigated period (i.e. 1991-1993). In the same time, the role played by Romania between SEEC is much more important and as a result the market share are greater. For the investment outflows from Romania, UNCTAD statistics indicate more than 30% in 2003 and 2004 (we except 1991 from the analysis).

2.3. The sources of the foreign direct investments

The origin of the investors can show us the profile of the market and it is tied to the history. Many present political, economical, social, or cultural aspects are direct connected with the historical development and commercial background of the investors. The traditions and customs of the states, geographic closeness to source, specific culture, also to other elements of social and political nature, are like a mirror for partners and represent common values which are shared between them.

The most important investment sources come from EU countries (Table 3). On the first places are countries like: Netherlands, Austria, Germany, or France, with more than 50% in total FDI. Among the first ten investors on the list, USA is the only non-European investor. As regards the frequency of registrations (number of registered commercial companies), there are two different groups. The first group of countries contents Italy and Germany with about 28% from total (each country has more than 10% from total). The second group contents countries with less than 4% from total number of companies. The positions of The Netherlands, Austria, or France are quite interesting because these countries have huge investments in foreign currency, but not a large number of companies present on the market. Comparing the classifications according to the two criteria, it result that the Western countries represent „the main spring" of FDI for Romanian economy.

Table 3. FDI sources in Romania (the first 10 countries, 1991-2005)

No.	Country	FDI's value (Thou. $)	% in total FDI	No. of companies	% in total number
1.	Netherlands	2,635,582.9	16.61	2,288	2.05
2.	Austria	2,305,582.1	14.53	3,578	3.21
3.	Germany	1,514,838.9	9.54	12,898	11.56
4.	France	1,501,694.3	9.46	4,060	3.64
5.	Italy	922,325.2	5.81	18,747	16.80
6.	USA	794,117.4	5.00	4,411	3.95
7.	Holland Antilles	677,632.6	4.27	11	*
8.	Great Britain	641,812.8	4.04	2,203	1.97
9.	Greece	607,984.5	3.83	3,164	2.84
10.	Cyprus	585,600.8	3.69	1,712	1.53
Total	-	19,673.4	100.0	119,120	100.0

Note: * = less than 0.01%
Source: NOTR Database

It is also interesting to present the situation of FDI sources by continents (Table 4) and certain economic organizations (Table 5).

Table 4. FDI sources by continents (1991-2005)

Continent	No. of companies	% in total number	FDI's value (Mil. $)	% in total FDI	Average value ($)
Europe	78,085	65.6	14,024.1	83.8	179,600.4
Africa	2,105	1.8	37.6	0.2	17,862.2
USA	4,411	3.7	793.5	4.7	179,891.2
South America	1,822	1.5	491.1	2.9	269,539.0
Asia	32,142	27.0	620.3	3.7	19,298.7
Oceania	554	0.5	765.0	4.7	1,380,866.4

Source: NOTR Database

The biggest value of FDI comes from Europe (83.8%), which is on the first place according to the number of companies registered (65.6%), as well. A large number of companies also come from Asia but the value invested was not at a high level. Regarding the average value, the situation is changing because the biggest average value is from Oceania, which means that those few companies from this part of the world invested huge amount of money (the same characteristics appear in case of South America).

Table 5. FDI sources by economic organizations (1991-2005)

Economic organization	No. of companies	% in total number	FDI's value (Mil. $)	% in total FDI	Average value ($)
EU	47,718	40.1	10,916.0	65.2	228,760.6
EFTA	1,750	1.5	538.6	3.2	307,771.4
OECD	70,379	59.1	4,788.9	28.6	68,044.4
CEFTA	6,364	5.3	488.0	2.9	76,681.3

Source: NOTR Database

OECD and EU countries are prevailing, both as regards the established companies and the subscribed nominal capital. Taking into account the average value, we can conclude that the EU countries invested more and OECD countries do not have a good average being on the last place. The highest average subscribed capital comes from EFTA countries. As regards CEFTA countries, the situation is the following: large number of commercial companies, low value of subscribed capital (comparable to that of EFTA countries) and small average investments.

The privatization is another side of the investment process. Together with the "Greenfield" inflows, the funds from privatization contribute to the development of the Romanian business environment. In Romania, the process of the privatization started late and its effects on domestic market were not the same like in other CEEC.

The main sources of privatization came from Germany, USA, Italy, Austria and The Netherlands (Figure 2), the same countries that have important direct investments in Romania (according to the Romanian authority for privatization – AVAS).
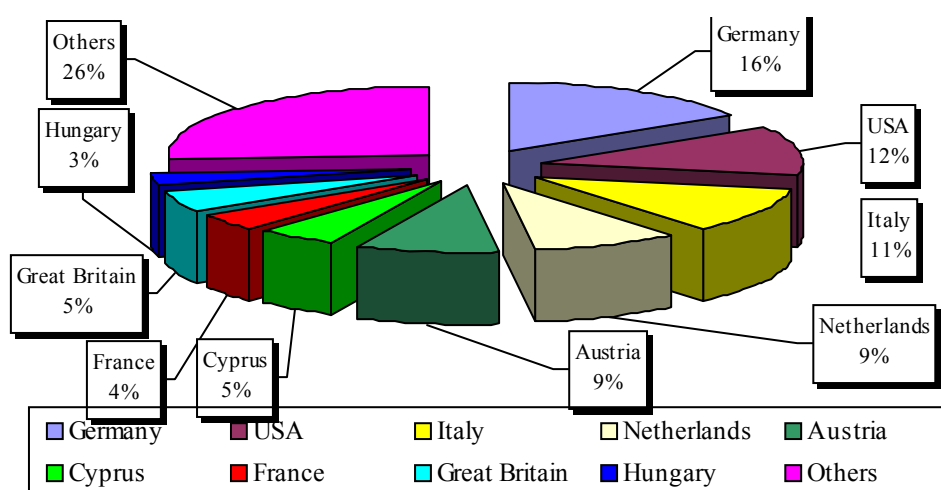
Figure 2.   Privatization sources (1993-2005*)
Note: 2005* = Preliminary data

All these countries sum up almost 60% from the total foreign investment in privatization. The process continues and the authorities are expecting to attract other strategic investors in the following years. There are still sectors of activity very attractive like energy, distribution or banking, with a great potential, which are on the list of the Romanian authorities with the intention of privatization. For some of them, the discussions and preliminary steps were already done.

2.4. The sectoral analysis of the foreign direct investments

Romanian economy is dominated by foreign investments especially in industry, trade and services (Table 7). All together sum up more than 80% from the total FDI by number of companies or the value invested. FDI's value distribution by activity sectors reveals the preference for industry (52.0%) services (21.6%) and trade (14.9%). In the same time, on the first places are also trade, services and industry, when we take into account the number of companies registered. There is no interest to invest in agriculture, tourism and constructions.

Table 7. FDI in Romania by sectors (1991-2005)

Sector	Companies (%)	FDI's value (%)
Industry	17.8	52.0
Agriculture	4.3	0.9
Trade	46.2	14.9
Constructions	4.5	1.7
Tourism	5.2	1.8
Transports	3.3	7.1
Services	18.7	21.6
Total	100.0	100.0

Source: NOTR Database

A significant source of FDI comes from privatization. The Romanian Authority for State Privatization (AVAS) sold 7629 enterprises between 1993-2004. The evolution of the privatization, with a distinct evidence for number of contracts opened, closed and canceled is represented in the Figure 3.
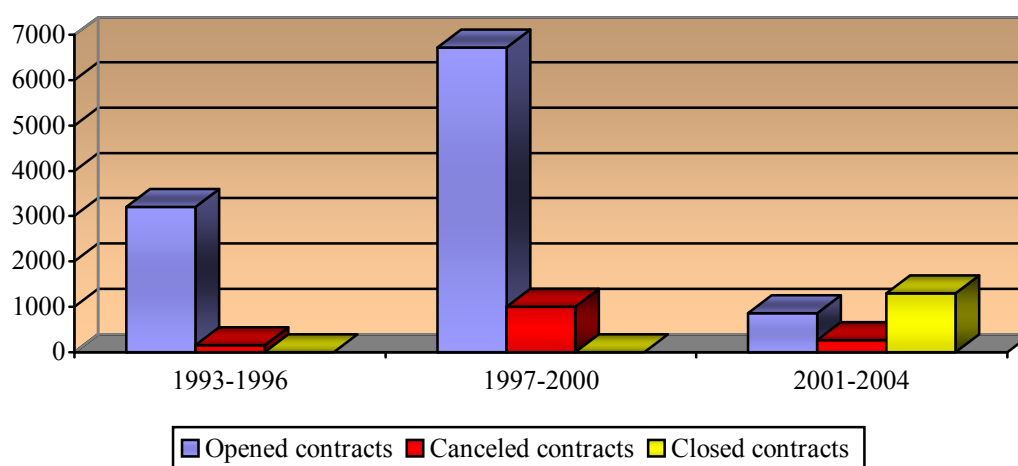
Figure 3.   The evolution of the privatization (1993-2004)
Note: Opened contracts means enterprises sold by contracts signed at that date; Canceled contracts means contracts which were not closed and ended; Closed contracts means the contracts totally assumed and paid by the new owners.

The structure of the privatization process on sectors, at the end of 2004 is like in Table 8. Many contracts were signed in agriculture, industry and trade and the best period with an intensive privatization activity was 1997-2000.

Table 8. The privatization by sectors (1993-2004)

Period	Agriculture	Industry	Trade	Constructions	Transports	Services	Others	Total
1993-1996	297	515	640	193	77	166	21	1909
1997-2000	1653	1229	1171	303	468	468	89	5381
2001-2004	60	260	173	64	42	172	23	794
Total	2010	2004	1984	560	587	806	133	8084

Source: AVAS Database

All these contracts were signed with Romanian and foreign investors. A separation of the capital by origins (domestic, foreign, mix) shows that the majority of the contracts had domestic capital (Table 9). The share of the foreign capital is not high but the values invested are important and, in the same time, in strategic sectors.

Table 9. Privatization sources (1993-2004)

Origins	1993-1996	1997-2000	2001-2004	Total
Romanian capital	1902	5217	742	7861
Mix capital	1	3	9	13
Foreign capital	6	161	43	210

Source: AVAS Database

2.5. Investment matrix

The performance of the countries as regards foreign direct investments in the world are measured by the international organizations by different indicators, out of which: FDI inward performance index, FDI outward performance index, FDI inward potential index (UNCTAD indicators). Table 10 presents Romania's position among the countries in the world from the point of view of the indicators that are used in the calculation of "Investment Matrix".

Table 10. Romanian's place in Investment Matrix (2000-2002/2001-2003)

Index	Maximum score		Romanian score		Minimum score	
	2000-2002	2001-2003	2000-2002	2001-2003	2000-2002	2001-2003
Outward FDI performance (128 countries)	16.160 Belgium/ Lux. (place 1)	22.741 Belgium/ Lux. (place 1)	-0.004 (place 119)	0.020 (place 89)	-0.359 South Africa (place 128)	-2.177 Kuwait (place 128)
Inward FDI performance (140 countries)	13.531 Belgium/ Lux. (place 1)	19.807 Belgium/ Lux. (place 1)	0.907 (place 73)	1.367 (place 62)	-2.533 Suriname (place 140)	-3.362 Suriname (place 140)
Inward FDI potential (140 countries)	0.659 USA (place 1)	n.d.	0.163 (place 83)	n.d.	0.042 Congo D.R. (place 140)	n.d.

Note: n.d. = no data
Source: UNCTAD Database

According to these indicators, the countries can be classified within the "Investment Matrix" by distinct categories that define the investment profile characteristic for each of them (Table 11).

Table 11. Matrix of inward FDI - performance and potential (2001-2003)

Index	High FDI performance	Low FDI performance
High FDI potential	**Front-runners** *Bulgaria*, Croatia, *Cyprus, Czech, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia.*	**Below-potential** Belarus, Russia.
Low FDI potential	**Above-potential** Albania, Moldova, TFYR Macedonia.	**Under-performers** **Romania**, Turkey, Ukraine.

Source: UNCTAD Database

The classification of countries according to the Performance Index and the Potential Index, leads to the following matrix (World Investment Report, 2002):

- Countries with high FDI performance (i.e. above the middle point of all countries performances classification) and with a high potential (i.e. above the middle point of classification referring to all countries potential), named "front runners";

- Countries with high FDI performance (i.e. above the middle point of all countries performances classification) and with a low potential (i.e. below the middle point of classification referring to the potential of all countries), named "above potential economies";

- Countries with low FDI performance (i.e. below the middle point of all countries performances classification) and high potential (i.e. above the middle point of classification referring to the potential of all countries), named "below potential economies";

- Countries with low FDI performance (i.e. below the middle point of all countries performances classification) and low potential (i.e. below the middle point of classification referring to the potential of all countries), named "under performing economies".

A series of conclusions can be drown from this short presentation, with implications upon the policies that can be formulated and summed up in the following way: for the front runners,

who wish to remain important FDI receivers, the problem is to maintain the competitiveness margin in terms of attracting FDI; the under performers will have to improve different aspects of the investment environment in order to improve their position in the Potential Index; the countries oscillating between sub-performance and above average economies should try and build up a competitive potential as soon as possible, that should attract the investors; similarly, for the countries having a high potential without having performances in FDI attraction, the investors' perception might be approached and greater efforts needed for the best use of advantages existing at the local level. Thus, Romania is a "sub-performer", being placed together with other developing or less developed countries in the 4[th] cell. The matrix reveals a sad picture from Romania's point of view, as the country is placed together with countries coming most from Africa, but also from South-America or South-Asia. In Europe, only two countries belong to this category, i.e. Ukraine and Turkey.

3. FOREIGN INVESTORS AND THE INFLUENCE ON STRUCTURES

In seventeen years of transition, important transnational companies (TNC) have come and invested in Romania. They are almost the same like the investors who came in other CEEC or SEEC, as well. On the list of the most important investors registered in the last years in Romania, according to the investment volume, we meet (Voicilas, D.M., 2006):

- In industry: Renault (France) – production of motor-vehicles, Daewoo (Korea) – production of motor-vehicles, ISPAT SIDEX (Holland Antilles) – metal products, Timken (USA), LNM Holdings (Holland Antilles/UK) - production of ferrous metals and semi-products, Wienerberger (Great Britain), The Rompetrol Group (Netherlands) - petroleum procession, Petrotel Luckoil (Great Britain/Russia), OMV (Austria), Shell (Great Britain), Mol (Hungary), Pirelli Tyres (Netherlands), Michelin (France), Holcim (Great Britain), Lafarge (France), Electrolux (Sweden), DRM Draxlmaier (Germany), Optinova (USA); out of which in food industry: Emborg Foods (Denmark), Kraft Jacobs Suchard Foods (USA), Brau-Union (Austria), Danone (Great Britain), Nestle (Switzerland), Hochland (Netherlands), Interbrew Efes Brewery (Turkey), Coca-Cola Hbc (Netherlands), McDonald's (USA), British - American Tobacco (Germany), Reynolds Tobacco (USA);

- In tertiary: Orange (France), OTE (Greece), Mobifon (Netherlands), Telemobil (British Virgin Isl.), Alcatel (France), Bearbull (France) - Retail trade in non-specialized stores, Terapia Holding (Netherlands) - Activities of management companies, Kaufland (Germany), Medisystem (Netherlands), Techteam Global (USA), L'Oreal (France), Unilever (Netherlands), Colgate-Palmolive (USA), Metro (Cyprus); Carefour (France), Cora (France); Butan Gas (Italy);

- In finance and insurance: Raiffeisen Bank (Austria), Societe Generale (France), Unicredit (Italy), ABN AMRO (Netherlands), City Bank (USA), ING Bank (Netherlands) etc.

By their activity, the influence on the Romanian economy increased from year to year. In time, the old Romanian structures were changed (juridical, social, economic) and a new market with totally different shapes, features and orientation appeared.

The intensive activity of the foreign investors in Romanian economy gives us the chance to build a classification of the foreign firms taking into account different criteria as: turnover, profit or employees.

The first foreign firms, classified by turnover are presented in Table 12.

Table 12. Top 25, by turnover (1991-2005)

No.	Name	County	Region	Sector
1	Petrom	Bucharest	Bucharest	Industry/Refinery
2	Mittal Steel Galati	Galati	Southeast	Industry/Steel
3	Rompetrol Rafinare	Constanta	Southeast	Industry/Refinery
4	Metro Cash & Carry Romania	Ilfov	Bucharest	Trade
5	Automobile Dacia	Arges	South	Industry/Auto
6	Petrotel Lukoil	Prahova	South	Industry/Refinery
7	Romtelecom	Bucharest	Bucharest	Communications
8	Orange Romania	Bucharest	Bucharest	Communications
9	Lukoil Romania	Bucharest	Bucharest	Industry/Refinery
10	Vodafone Romania	Bucharest	Bucharest	Communications
11	Interbrands Marketing & Distribution	Bucharest	Bucharest	Trade
12	E.ON Gaz Romania	Mures	Center	Services/Gaz
13	Porsche Romania	Ilfov	Bucharest	Industry/Auto
14	Rafo	Bacau	Northeast	Industry/Refinery
15	Selgros Cash & Carry	Brasov	Center	Trade
16	Alro	Olt	Southeast	Industry/Aluminum
17	Philip Morris Romania	Ilfov	Bucharest	Industry/Tobacco
18	Rom Oil	Brasov	Center	Services/Petrol
19	British American Tobacco (Romania) Trading	Bucharest	Bucharest	Industry/Tobacco
20	Rompetrol Downstream	Bucharest	Bucharest	Services/Petrol
21	Omv Romania Mineraloel	Bucharest	Bucharest	Industry/Refinery
22	Petromservice	Bucharest	Bucharest	Services/Petrol
23	Renault Nissan Romania	Bucharest	Bucharest	Industry/Auto
24	Coca Cola Hbc Romania	Bucharest	Bucharest	Industry/Beverage
25	Mol Romania Petroleum Products	Cluj	Northwest	Industry/Refinery

Source: NOTR Database

The first foreign firms, classified by profit are presented in Table 13.

Table 13. Top 25, by profit (1991-2005)

No.	Name	County	Region	Sector
1	Petrom	Bucharest	Bucharest	Industry/Refinery
2	Orange Romania	Bucharest	Bucharest	Communications
3	Vodafone Romania	Bucharest	Bucharest	Communications
4	Romtelecom	Bucharest	Bucharest	Communications
5	Cosmote Romanian Mobile Telecommunications	Bucharest	Bucharest	Communications
6	Automobile Dacia	Arges	South	Industry/Auto
7	Metro Cash & Carry Romania	Ilfov	Bucharest	Trade
8	Rompetrol Rafinare	Constanta	Southeast	Industry/Refinery

9	Porsche Romania	Ilfov	Bucharest	Industry/Auto
10	Lafarge Ciment (Romania)	Bucharest	Bucharest	Industry/Cement
11	Rompetrol Financial Group	Bucharest	Bucharest	Services
12	Procter & Gamble Marketing Romania	Bucharest	Bucharest	Trade
13	U.C.M. Resita	Caras-Severin	West	Industry/Auto
14	Coca Cola Hbc Romania	Bucharest	Bucharest	Industry/Beverage
15	Holcim (Romania)	Bucharest	Bucharest	Industry/Cement
16	Continental Automotive Products	Timis	West	Industry/Auto
17	Alro	Olt	Southwest	Industry/Aluminum
18	Petromservice	Bucharest	Bucharest	Services/Petrol
19	Carpatcement Holding	Bucharest	Bucharest	Industry/Cement
20	British American Tobacco (Romania) Trading	Bucharest	Bucharest	Industry/Tobacco
21	Luxten Lighting Company	Timis	West	Industry
22	Selgros Cash & Carry	Brasov	Center	Trade
23	Jaguar Development	Bucharest	Bucharest	Industry/Auto
24	Philip Morris Romania	Ilfov	Bucharest	Industry/Tobacco
25	Linde Gaz Romania	Timis	West	Services/Gaz

Source: NOTR Database

The first foreign firms, classified by number of employees are presented in Table 14.

Table 14. Top 20, by employees (1991-2005)

No.	Name	County	Region	Sector
1	Petrom	Bucharest	Bucharest	Industry/Refinery
2	Petromservice	Bucharest	Bucharest	Services/Petrol
3	Mittal Steel Galati	Galati	Southeast	Industry/Steel
4	Romtelecom	Bucharest	Bucharest	Communications
5	Automobile Dacia	Arges	South	Industry/Auto
6	E.On Gaz Romania	Mures	Center	Services/Gaz
7	Delphi Packard Romania	Timis	West	Services
8	Lisa Draxlmaier Autopart Romania	Arges	South	Industry/Auto
9	Metro Cash & Carry Romania	Ilfov	Bucharest	Trade
10	Mechel Campia Turzii	Cluj	Northwest	Industry
11	Mechel Targoviste	Dambovita	South	Industry
12	Vel Pitar	Valcea	Southwest	Industry
13	Sews Romania	Hunedoara	West	Industry
14	Daewoo Mangalia Heavy Industries	Constanta	Southeast	Industry/Navy
15	Selgros Cash & Carry	Brasov	Center	Trade
16	Drm Draxlmaier Romania Sisteme Electrice	Satu Mare	Northwest	Industry/Auto
17	Rolem	Brasov	Center	Industry
18	U.C.M. Resita	Caras-Severin	West	Industry/Auto
19	Alro	Olt	Southwest	Industry/Aluminum
20	Lukoil Romania	Bucharest	Bucharest	Industry/Refinery

Source: NOTR Database

Some of the firms like Petrom, Petromservice, Alro, Automobile Dacia (from industry), Metro Cash & Carry Romania, Selgros Cash & Carry (from trade), Romtelecom (from communications and services) are present in all classifications and they are the main "actors"

on the market. In majority, they are the former huge enterprises built during the communism and were privatized in the last years. Other firms (especially in trade, services and communications) were established in transition period and came on Romanian market for the first time.

Petrom is the biggest company in Romania, according to all criteria. It has 48,408 employees and a turnover 56.5 times bigger than a company situated on the place 200 (Top 200 – Romanian firms, 2005). In the same time, Petrom is the only firm from Romania, which is present on the list of the first 25 non-financial TNC, originating from CEE, by the volume of foreign investments made.

At the end of this analysis, we would like to present the result of the survey done in 2006 concerning the impact of the foreign brands on the Romanian market and the effects on customs (High Impact Brands, by Synovate for Biz Magazine, in frame of Strategic Forum 2006). The survey used as main criteria: recognition, trust, popularity, optimism and innovation. According to the survey, the first brands in Romania are: Nokia, Ariel, Coca-Cola, Sony, Philips, BMW, Mercedes, Adidas, Colgate. In banking sector, the first brands are: BCR-Erste Bank, BRD-Groupe Societe Generale, Raiffeisen Bank, Bancpost.

4. CONCLUSIONS

From FDI analysis in the Romanian economy, certain conclusions can be drawn that come to consolidate their increasing importance for privatization, restructuring and economic modernization, for solid market economy implementation.

The change in the political regime also produced certain modifications of the economic policies, so that a change of attitude as regards received FDI flows took place, large privatization processes of state-owned assets were initiated and the regional economic integration policies were intensified. Among these, the policies regarding the regime of foreign investments have a very important role as they can block, condition, hinder or encourage the FDI entries. The investment boom from the developed countries in the past and the high level of FDI flows in certain CEEC can be explained by the national policy liberalization in this field. The liberalization tendency can be increasingly found in the national regulations by close or even identical formulations regarding important FDI aspects and their operation on the host–territories: fair, non–discriminating treatment of foreign investors; guarantees against nationalization, except for well–defined situations of public interest and with payment of adequate compensation; settling up of investment disputes and in case these are not solved up, appealing to international arbitrage; providing free repatriation of profits and capital. These norms can be also found in World Bank recommendations regarding the national policies of FDI.

The legislation on foreign investments regime in the transition countries, formulated in the first stage of reform by special normative acts, got in line with the international tendencies having a more open character than that of the other countries. Unlike developed countries that do not have special rules on FDI, in the transition countries specific regulations were formulated, often in the absence of similar regulations for domestic investors. In Romania, FDI regime evolution after 1990 had the general trend as in all transition countries; however, its particularity was that the frequency of changes and sometimes the lack of coherence and

consistency of authorities strongly influenced the attracted foreign capital. At present, Romania is one step behind its main competitors, in a stage in which the same treatment is now applied to foreign and local investors. The practice in many years in the past showed that the determination to attract foreign investors was not assumed as a priority by the Romanian economic milieu, by decision–makes at all levels, by the managerial structures of state enterprises.

These tendencies were found whole Romanian economy level and mainly in the activity sectors that are less attractive for investors and having a high risk degree, as was the case in agriculture, tourism or in certain food industry sub-sectors.

This short analysis helps us to formulate the following final conclusions:

- There was a weak investment potential;

- There was a weak capacity of investment absorption;

- The sub-investment and des-investment syndromes are still present;

- There was no positive impact on some sectors or sub-branches;

- There are positive signals, that, the present FDI state will be changed in the next years.

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NOTR Database; NIS Database; UNCTAD Database

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