BUSINESS STUDIES

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DEDICATION

The economic crisis made the practitioners of economics face facts that can hardly be disregarded. It has become clear that new theories are needed to replace the ones prevailing so far.

The belief in the autocracy of markets has failed, and the views on the monetary markets have to be grounded in new foundations.

In this way the crisis affects not only our everyday lives, but the economic theoretical foundations as well. The neoclassical theory prevailing in the past three decades attracts more and more criticism. More and more experts voice the opinion that the current crisis is not only a consequence of the incompetence of greedy bankers and irresponsible politicians, but the theories on the basis of which the decisions were made are also to be blamed.

Education in economics and in the theory of economics faces a change of paradigm. Therefore the responsibility of academics and researchers preparing the economic experts of the future for their tasks is not small. It is not inconsequential what approach and way of critical thinking they leave as inheritance to future generations.

The Faculty of Economics of the University of Miskolc wishes to be involved in the change of paradigm to an extent commensurate with its weight, modest though it may be.

The studies published in the volume were born in this spirit and aim at serving this purpose.

Miskolc, October 2010

Prof. Dr. György Kocziszky
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ENVIRONMENTAL ATTITUDES IN HUNGARY

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1. PROVISORY MODELS OF ENVIRONMENTAL CONSCIOUSNESS

Environmental consciousness can be defined as a behavioural approach of entities with higher regard for environmental and natural problems and for solving them [10]. In our opinion environmental consciousness is the indicator of the "quality" of decisions and actions. The quality in this definition means the presence of environmental interests and values.

In my opinion two dimensions of environmental consciousness must be defined:

- Individual dimension;
- Organisational (corporate) dimension.

Individual dimension contains the scale of values, the attitudes and the personality of people [14]. People choose from products and services which are more or less environmental friend, they make decisions on travelling by car or bus. They humanize their children, etc. Decisions of people as consumers have direct effect on enterprises: they must produce what the market wants. After all the consumer's behaviour has effect on the environmental performance as well. On the other side the way of using products and services has various effects on the environment.

There must be given special attention to organisational dimension. People are not only consumers but also producers of the goods and services. They work for the enterprise that produces the goods they will use [5]. Better results are probable if environmental consciousness will be demonstrated and learnt at job site. Organisational culture [2] means more then the sum of values and attitudes of the members. The organisation has relevant effect on the change of individual behaviour. This means that managing the organisation in a way which prefers environmental friendly solutions the development of consciousness may be accelerated.

Theoretically it is quite easy to talk about environmental consciousness. But the practice is more difficult and in addition measurement is critical to do. Individuals do not have wide and authentic tools to measure the environmental performance. And there is significant difference between the verbal (enounced) and real (achieved) consciousness. Giving a definition of the content of environmental consciousness is difficult but many publications try to clear it in connection with product-development, organizational development and regional strategies as well.

Maloney and *Ward* [13] give 4 component of environmental consciousness: factual knowledge in ecology, emotional perception for environmental problems, disposition to act, existed act.

Researchers of the Corvinus University – based on other theories – mention 5 dimensions [15]: knowledge in ecology, environmental attitudes, environmental values, disposition to act, existed act.

Being able to measure and develop the individual and organisational environmental consciousness parallel and of course in connection with each other 5 components can be outlined [20]:

- knowledge;
- attitudes and values;
- supporting toolset;
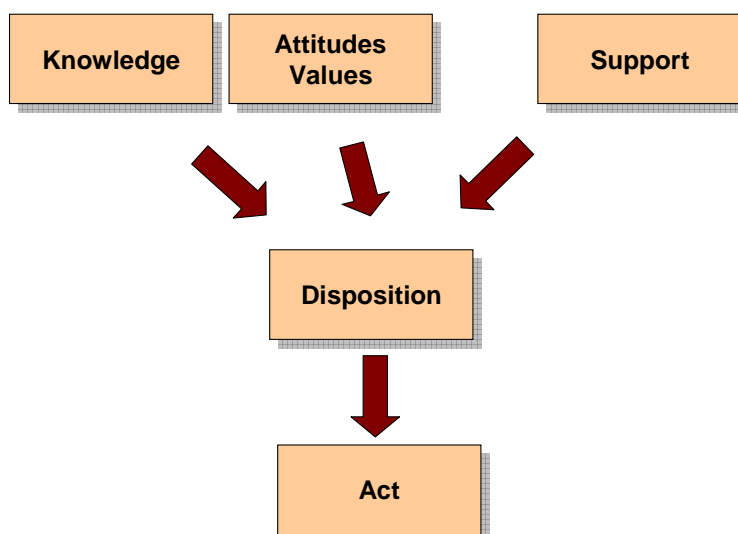- disposition to act;
- existed act (*Figure 1.*).

Figure 1
Components of environmental consciousness
Source: Berényi: Environmental Management, 261.p.

Knowledge has two co-ordinate parts. It contains the knowledge of the individuals and the organisation, as well. Individual knowledge means environmental and factual information of leaders (managers) and workers. Information about the status of the environment and effects of activity on the environment is important, for becoming able to optimise the environmental performance. Environmental information helps to answer the "What to do?"

questions, whereas factual knowledge the "How to do?" questions. We must take up the difference in knowledge of leaders from workers. Both are important but it must be considered that the have different possibilities. Workers may have brilliant ideas, but they do not have any competent for doing changes. Leaders can do that.

Organisational knowledge is not just a sum of the individual ones. We have to calculate upon synergic effects, too. Know-how descriptions, internal statistics and report, the solutions of IT-background, results of team-work etc. are examples for knowledge-elements, which arrive not directly from the individuals.

Environmental management has many functions in connection with the knowledge:

- Measuring the state of knowledge;
- Discovering the fault and/or critical information and activity;
- Harmonizing environmental and factual information;
- Harmonizing leaders' and workers' information;
- Building up and developing the knowledge-base.

Attitudes and values are the "soft", cultural elements of environmental consciousness. We can make a distinction between the leaders and workers values and attitudes from the point of view what kind of role they play in the organisation [6], [16], but there is a similarity, as well. Both leaders and workers make decisions. If one has alternatives to choose, the quality of the decision will depend on his/her scale of values. Of course if we talk about a well-structured, operative decision, the role of values (culture) is not so important. The equipment of the technocratic coordination can solve these problems [6]. But there are problems, which are not well-structured. Solving these problems there are not detailed instructions, the possible outputs are unknown. In this case the role of values is determinative. Attitudes and values are developable, environmental values can be plant into the mind of leader, workers and the whole organisation, as well. This process is called environmental domestication.

Supporting toolset is the next key-element of working environment-consciously and being able to develop this way. The role of organisations is a critical point. I have hypothesised in my research that the quality of structural support of environmental consciousness is low at the moment, but organisations have considerable reserves. From this point of view the toolset can be divided into two parts:

- Special environmental elements (e.g. greener production projects, standards for evaluating environmental performance, environmental impact-analysis);

- Other elements for supporting problem-solving individually and by team-work (from the brainstorming-techniques to QMS in wide range);

I believe that using up team-work techniques will help the organisations [21] to explore environmental problems and attitudes to them and to develop the environmental sensitivity of the human elements.

The fourth element is the disposition to act. Disposition derives from knowledge, scale of values, attitudes and the structural aid. Disposition is good, but not enough. Environmental performance will gain just in case of concrete actions. Why is it not obvious that disposition is followed by actions? Shortly we can mention the economical-minded being of enterprises. Because of the favour of profit or in case of low interest of leaders and owners the fulfilment of environmental favours will be damaged. This means that there is another critical point. Building up an accurate interest-system is essential for becoming environmentally conscious.

Disposition to act is a theoretical category. Practical measurement is limited.

Building up and developing environmental consciousness is a process. In this process negative feedback has a very important role. Results of the actions enlarge the base of knowledge, and it makes changes in attitudes. Paying unsatisfactory attention to the importance of feedback, the consciousness will not be developable in a controlled and effective way.

2.   RETHINKING THE MODEL OF CONSCIOUSNESS

The model presented in the previous chapter aggregates the empirical and theoretical knowledge of the environmental consciousness. About earlier models of consciousness and environment consciousness see e.g. [1], [7], [8], [12].

But there are some practical problems of its application:

- The model focuses on organizations, first of all companies;
- Man must be a member of one or more organization;
- Disposition to act is hard to define and measure;
- There is no value of disposition if act is absent.

There is a professional initial point of seeking for a better solution as well. Our environment and the problems are over people or organizations, they are common. In addition consciousness is defined as a quality indicator. The challenge is building up a comprehensive model which is ready to describe the individual and entrepreneurial behaviour parallel.
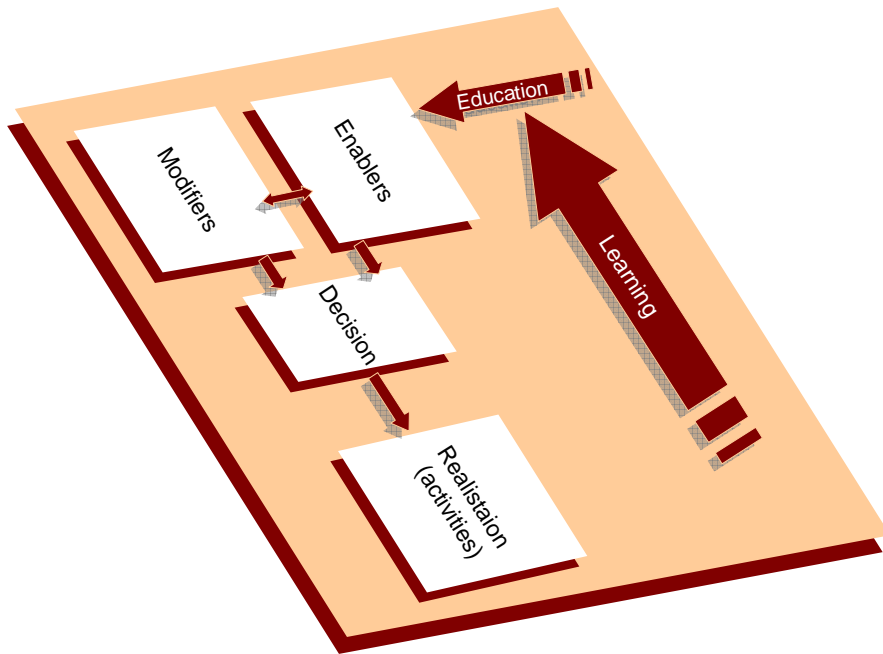
Figure 2
Rethinking the model of environmental consciousness
Source: Berényi: Environmental Management 264.p.

The comprehensive model uses a new approach. It uses the process of decision making. Decision is the critical initial point of the actions. Field of decisions displaces the disposition. We have professional methods for analysing the ways and whys of making decisions instead of accepting the unreliable introspective reports.

This does not mean, that disposition is outlaw but interpreted in an other way. Let us think of how we make decisions:

- We have specified objectives and specified level of knowledge. We have conception about good and bad, handsome and useful. These opinions and the actual knowledge may be difficult to change; we must handle them as enablers.
- There are situational circumstances. Being alone, with friends or with family our behaviour may be different. Sometimes these circumstances motivate people to make inconsistent decisions. Think of the conflict between financial possibilities and desires!
- Decision-making means change between the known possibilities. Point of realisation includes the accomplishment and evaluation of the selected solution.

- Learning is based on the evaluation. New experiences will confirm or overwrite the enablers. Out next decision may be different in the same situation.
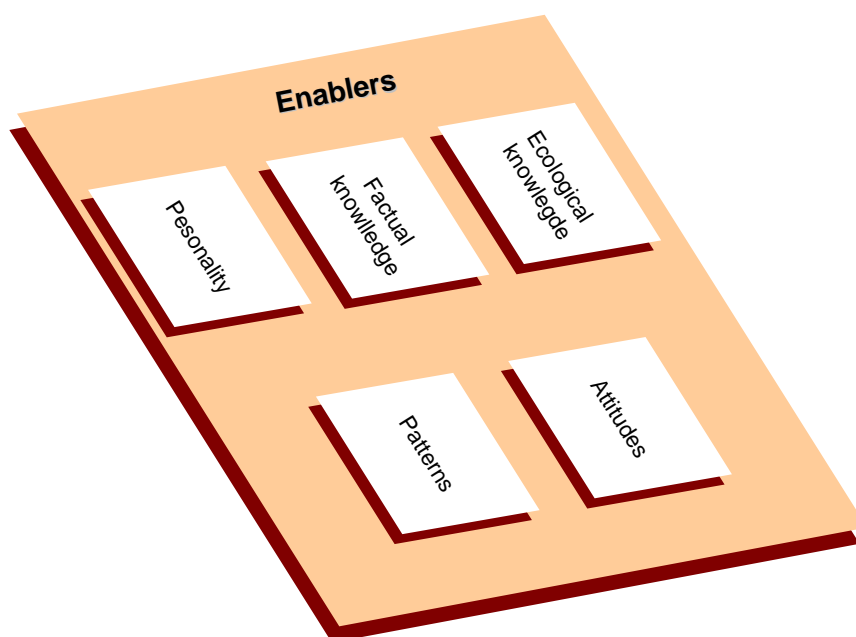

Figure 3
Environmental consciousness – Enablers
Source: Berényi: Environmental Management 264.p.

My comprehensive model is ready to describe the individual and business behaviour as well. From organizational (business) point of view knowing the content of the process will make the management able to decide on a higher level. Especially accordance of attitudes, personal and cultural patterns and motivation has determinant effect on the success of operation.

3. FOCUS ON ATTITUDES

Attitudes have determinative effect on personal - and even corporate - decision making. My OTKA PD71685 research (2008-2011) on elements and measurement of environmental consciousness applies a wide-ranging approach to discover the factors of environmental consciousness. Analysing the attitudes is one of the most important aims. This study sums up the empiric experiences on thinking of adults.

I use questionnaires for the quantitative analysis and training-exercises (mostly outdoor trainings) for expanding the relevance. Tables below show the

results transformed to a 0-100% scale. Lower values mean the absence of responsibility and conformity.

4.   STATE OF THE ENVIRONMENT

The base of problem solving [17] is the identification. Positive environmental changes are unimaginable without recognition the state and the need for actions. My test analysis makes difference between the importance of local and global environmental problems. Table 1. shows the averages of 55 women and 118 men.

Table 1
Preconceptions about the state of environment

	Women			Men		
	Global	Local	Diff.	Global	Local	Diff.
Melting of polar ice	85.8	52.4	33.4	79.3	35.6	43.6
Increase of temperature	84.6	67.1	17.5	74.5	52.0	22.5
Depopulation of animals	86.9	61.4	25.6	77.5	40.4	37.1
Failure of energy-stocks	84.7	70.7	14.1	72.4	53.8	18.5
Air pollution	94.2	83.7	10.5	87.6	70.5	17.1
Effects of noises and vibration	70.7	61.7	9.0	60.7	54.9	5.8
Water pollution	89.2	79.7	9.5	82.2	69.5	12.7
Soil pollution	87.5	76.8	10.7	80.4	66.9	13.5
Domestic waste	79.2	76.9	2.2	76.0	68.0	8.0
Industrial waste	90.5	76.1	14.4	84.4	66.2	18.2
Safety of foods	82.5	76.3	6.3	74.2	63.6	10.5
Hungering	86.8	54.6	32.2	74.2	37.5	36.7
Poorness	83.1	67.1	15.9	73.8	54.9	18.9
Public safety	80.5	72.9	7.6	68.4	65.5	2.9
Criminality	85.9	73.1	12.9	71.3	66.5	4.7
Cultural downgrade	74.1	65.6	8.5	72.7	69.5	3.3
Average			**14.4**			**17.1**

Source: own construction

In general we can discuss that people appreciate the global problems more critical than the same questions locally. Only some "classic" elements are consigned as real problem like waste, health or air-pollution. Academic literature [4], [18] highlights the importance of social problems. In my opinion the checked elements (cultural downgrade and criminality) are under-evaluated in the global category. But we can see that locally they got "higher" position.

An other experience – confirmed by other tests and training-experiences – is that women are more sensitive for environmental questions than men.

5.   SEEKING FOR THE RESPONSIBILITY

It may seem subsidiary from the solutions point of view but important to identify the responsibility in connection with the environment. Table 2. summarizes the preconceptions about various people and institutes and about their role in connection with the state of the environment.

Table 2
Responsible stakeholders in connection with environmental protection

	Women	Man	Average
Capital city	89.0	89.6	89.2
Industrial parks	85.3	81.9	84.2
Large towns	83.7	75.8	81.3
Small villages	34.9	33.8	34.6
Hypermarkets	**64.1**	**60.8**	**63.1**
Small shops	**37.6**	**35.0**	**36.8**
Government	80.7	71.5	77.9
Prime minister	70.3	65.4	68.8
President of the Republic	59.2	47.7	55.6
Political parties	73.6	65.0	70.9
Local Government	66.3	61.9	64.9

Source: own construction

There is correlation between the size of settlement and the responsibility. Responsibility of commerce gives similar picture. I have asked people about the role of industrial parks because I think these are "centre" of pollution. The result confirms my idea. But there is an interesting stereotype: a small village will not have a level of emission like a large town i.e. a small village is less pollutant. If we think of a country or region small villages may become more pollutant. Imperfection of waste-treatment, individual heating and cooling systems, longer journeys to school and work and the effects of tourism increase their ecological footprint.

Based on the characteristics of classic attitude-tests [Smith – Mackie, 2004] I have analysed the role and responsibility of politicians as well. Their responsibility is emphasised even if they are indirect participants of pollution. They give the frames and content of the regulation.

The local-global aspects return in connection with the politicians, too. Responsibility of the local government represents a lower value.

6.   KEY OF THE DEVELOPMENT

Without the mention of the topic of environment or sustainability I asked people about their ideal (see Table 3.). Parents are obviously determinative. Teachers stay in the middle of the list. Public elements or green organizations are at the end of the list. People do not think that they have important effect on their mind.

Women are more sensible in comparison with the men: mothers, sisters-brothers and friends are more important for them meanwhile they are less opened for the opinion of scientists and professional institutes.

Table 3
Ideals

Level	Ideals
Over 80%	Parents
60% - 80%	Friends, Sisters and brothers, Teachers, Chiefs
40% - 60%	Scientists, Researchers, Green organizations
Under 40%	Politicians, Musicians – public institutes and people

Source: own construction

Figure 3. summarizes the possible forums of environmental education. Respondents keep the family the best forum, then the school. Universities, books, workplaces etc. are undervalued. I believe that these forums have much more important role and possibilities than it seems based on these results. People do not to work because they want to learn the ways of environmental protection. But they must work properly. They are not interested in environmental protection excluding the case it is a built-in characteristic of their work. I.e. new approach is necessary. Interviews and other tests have confirmed my hypothesis.
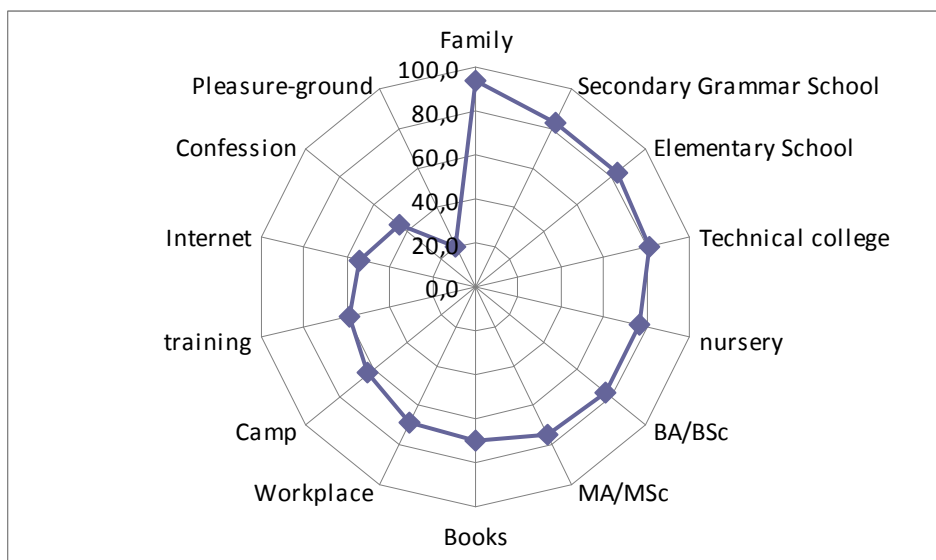
Figure 3
Forums of environmental education

Source: own construction

7. DEVELOPMENT POSSIBILITIES

The main conclusion of the presented results is that the principle of subsidiarity is missing from the people. It may be the most important principle pf the EU. We can accept it if we talk about money but forget about it in connection with our own environmental responsibility:

- thinking about environment and its pollution is stereotyped. Larger size means more pollution;
- local responsibility is underprized. We "believe" that global problems will not bear us.

People have strong conception about environmental problems and responsibility but we should take into consideration the fact of distorted answer by the social requirements. The security of local environment must be re-evaluated.

The main hypothesis says that the organization (workplace) is the tower of developing environmental consciousness. Results presented in this paper and the experiences of the interviews confirm me in my opinion. Based on the role of workplaces the development can be integrated as a part of the daily routine. This needs the commitment of top management and the governance of course.

The connection between size (organization, shop or settlement) and responsibility bases an other type development possibility. Large enterprises are

the key of success (see CSR literature [9]) but this does not mean the activities are limited to them. Based on the Japan model [11] by managing the supply chain they are the "bosses" and "parents" of SME enterprises. Environmentally conscious work may be a necessary requirement.

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RECOMMENDATIONS FOR DEVELOPING A REGIONAL MIGRATION POLICY IN SUPPORT OF EMPLOYMENT POLICY

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1.   SUMMARY

The various schools of thought of economics gave different explanation and significance to labour allocation. None of the schools of thought alone can totally explain the reason for migration and its direction, size, macroeconomic influence. However, they provided new aspects to help us understand and forecast the international movement of labour force. It is important that researchers explore the expected movements and their social and economic consequences: what kind of relationship is there between the economic and social conditions of a region and the international labour flow. The competitiveness of a given nation's labour market or that of a smaller economic unit (region, county) is jeopardized by the drain effect of the over-liberalized global labour market. State, as an economic actor, should attract, retain and motivate the actual and potential labour force. It can, relying on the approaches of the different economic schools of thought, develop an effective migration policy that serves as the basis of sustainable development.

Population trends influence the size and composition of the whole population and, consequently, those of the labour source. In the second half of the 20th century demographic processes were characterized by low and stable levels of mortality and fertility, the natural growth of the population stopped. This phenomenon could be observed in Hungary as well from the second half of the 80ies. The picture, however, is overshadowed by the immigration surplus, as a result of which the number of population in West-European countries stagnated and a minor decrease began. 2.9% of world population (175 million people, every 35th person) lives outside his or her country (IOM, 2003). Majority of them, 100 million people, found new home in the developed countries. It is generally true that 2 to 5% of the population of a country permanently lives far from the home countries; the number of migrants has doubled since 1975. The size and structure of the labour source determines an economy's ability to perform. Globalization in the 20th and 21st centuries, and Hungary's accession to the European Union, have changed Hungary's labour market in the past few decades. It placed our region into the migration

processes, the reasons for and consequences of which is slowly deciphered by the domestic science.

The mobility, which in European terms can be viewed as low-scale, may bring adverse consequences. Therefore, I hold it important that researchers explore the expected movements and their social and economic consequences: what kind of relationship is there between the economic and social conditions of a region and the international labour flow. I will pay special attention to what extent Hungarian economy and society are subject to migration; and what is the propensity to migrate is like in Borsod-Abaúj-Zemplén County where I live. Nevertheless, I will explore, first of all, migration theories in the context of some concepts from the history of economics.

2. MIGRATION THEORIES IN THE LIGHT OF THE HISTORY OF ECONOMICS

The approaches of the English classical economists, such as Smith (1776), are important for researchers of migration because they suggested that labour is the prime mover of the economy, it is the source of value. Later, those migration approaches built upon this theorem, which I also treat as an axiom that wished to aggregate the gains and losses of the labour allocation processes at a macro-economic level. Piore (1979), in his writings, pointed it out that there is a constant hunger for immigrants in industrial societies because this need follows from their internal operation.

The work of Malthus (1798) indicates that the change in the number of the population is an important economic factor; and it may be easy to econometrically prove a theorem which will be refuted by the history, and which induces adverse social processes influential to the economy. Racism falls into this category: the ideology of over-population and "living-space" theories are those which keep it alive. The European migration studies of the 20th century have been influenced by the vision that hungry crowds are coming to the developed West European countries and, in search of work and bread, are overpopulating them. Migration researches, therefore, got a new direction that aimed at proving this theory mathematically. Estimations trying to estimate the East European migration trends on the basis of the migration experiences of the South American expansion rest on the econometric models stemming from the differences in pay. (Bauer and Zimmermann 1999)

Ricardo's (1817) labour value theory is also the basis of the economics of migration. He suggests that the manufacturing cost is one of the movers of foreign trade. Pay ratios, pays being one element of manufacturing costs, are also the movers of migration. This means that a researcher of migration regards the relationship between trade and labour migration as important.

According to Say's dogma every production creates its market, that is, neither a general oversupply, nor a general unemployment is possible. His followers misunderstood his statement and overemphasized its importance. Perhaps the best known theory, based upon the previous ideas of the classical economics, is the behaviourist "push and pull theory". Ravenstein (1889) claims that basically, individual decisions have to be investigated. In his view migration is governed by a "push-pull" process: unfavourable conditions in one place (oppressive laws, heavy taxation, etc.) "push" people out, and favourable conditions in an external location "pull" them in. Ravenstein, however, disregards labour market situations. (Tobler, 1995)

The neoclassical schools of thought, based on the marginal productivity concept, came to the logical explanation that the relative factor-supply of particular countries differs from one another. In the lack of state intervention in a national economy, factor owners transfer factors to locations where their prices and revenues from them are higher. This explanation seems simple and acceptable, and consequently, it exists in public thinking, it influences politicians and economic leaders in making decisions. Harris and Todaro (1970) developed a model, following the neoclassical economists, by way of which they attempted to follow the strengthening econometric approach. I contend that the most remarkable importance of the model is that migration, previously investigated from geographical and sociological aspects, had directly become researchable using economic logic.

Marx's (1868) views are also important from the point of view of labour migration. He argues that every method of production has its own social embeddedness. Therefore, I accept that migration processes can be interpreted only in a socially adequate environment. Logical connections and historical observations play important roles in understanding migration processes.

At the beginning of the 1970ies new approaches emerged that explicitly refused the neoclassical "pull and push" interpretations. The emphasis shifted to macro-processes and wider historical/structural forces since thy, rather than the micro-context of individual decisions, determine the preconditions and direction of labour flow. They do not consider labour migration to be an independent phenomenon: they investigate it as a significant component of the uneven development among sectors, regions and nations (Wallerstein 1983, in Hárs 1992).

Schumpeter's (1912) work cannot be overlooked in a literature review concerning migration. In his theory economic growth is in close relationship with intellectual capital, knowledge, R&D capacity, information and entrepreneurial skills. Schumpeter's entrepreneur is a factor of production that emigrates or immigrates and, in this way, significantly influences an economy's production ability. In my view it may be seen as a basis of the adverse consequences of brain-drain in the economic theory.

The neoclassical revolution could only provide "add-on"-s to the classical theories: it offered "post-factum" explanations to questions relating factors of production, including migration. Keynesian economics suggests that the state has a central role in controlling migration processes. It is not necessary or rather not possible to mathematically prove certain observations and theories.

The Austrian School of Thought paid relatively a little attention to labour market issues. Its general approach is that it refuses planning and state intervention and governance. Its liberalism suggests that market needs channel labour migration in the appropriate direction without state intervention. This school had an obvious role in the free movement of people and labour mobility in the 20th century.

The "New Economics" questions a number of conclusions of the above mentioned theories. Many of the representatives of neo-Keynesians, post-Keynesians, the new institutional school and new-Marxists were concerned with the significance of human capital and related issues. Their theorems influence the economics of migration. The neoclassical paradigm was then replaced by the, so called, endogeneous growth-theory which analyses economic growth by explicitly modeling technical development and human capital accumulation. The highly trained workforce is attracted by the "knowledge factories", the intellectual capital tends to be concentrated. Therefore, poor countries' growth will be slower than that of richer ones. Researchers of the endogenous growth-theory dealt a lot with the impact of governmental policy on economic growth. Their views influenced the investigation of the migration of scientific degree holders. Representative of the new institutional school assert that market behaviour cannot be analyzed through the behaviour of individual actors. By saying this they question the classical approach of migration based on individual pay differences. The institutions (which are not the organizations themselves, they are rather behavioral systems) appear as independent factors in the market, they have their own goals, thus their role modifies the conditions and characteristics of market equilibrium. Studying the institutional environment leads us to the network theory (Portes and Walton 1981, Castells 1986, Sassen 1988). If the relatives, friends, neighbours and workmates have relationship in the potential target area, it can minimize the migrant's risk if he or she can rely on the already existing interpersonal networks for information (Taylor 1976). One aspect of the further development of the model is the problem of building relationships. Swaan (1994) points out the lack of institutions of relationship-building in the transitional economies. Building relationships is necessary and costly; however if those relationships exist already it will significantly decrease transactional cost and increase yields. The research of the new institutional school can be seen as the beginning of investigating problems that had been ignored by the traditional economics (Mátyás 1996).

Balogh (1993) argues that world is getting smaller, it tends to be unified, we live in an age of interdependence and there is only one world-economy and world-trade system. A new world order is shaping up, the basis of which is globalization. It pervades a great deal of migration theories following Wallerstein's (1983) work.

New economics, which introduces production from a new perspective, is gaining more and more emphasis in famous economists' publications. They tend to suggest that the conditions and circumstances of production have radically changed following the structural changes of the past twenty years. The factors of production do not mean the traditional landcapital-labour triumvirate any longer (Landfeld-Fraumeni 2001). One pillar of this new system is human resource that uses the, so called, "infocommunication". All these changes tend to put migration on a new footing.

Although the different schools of thought of economics did not deal with migration directly, their approach can be deduced from their views relating to labour. The change in the economic thinking appears in the migration theories. The various schools of thought of economics gave different explanation and significance to labour allocation. None of the schools of thought alone can totally explain the reason for migration and its direction, size, macroeconomic influence. However, they provided new aspects to help us understand and forecast the international movement of labour force.

Economic thinking at the end of the 20th century – in which "new economics" is dominant – regards innovation and information technology such an important factor of production that it speaks of a completely new age in economic history. Growth theories of this age refer to technological development as an endogenous variable.

Labour force should not only be taken into account as a quantitative variable but also as a qualitative factor. Prognoses should also include migration with special regard to the brain-drain phenomenon. Retaining population should be given a top priority when managing crisis.

The competitiveness of a given nation's labour market or that of a smaller economic unit (region, county) is jeopardized by the drain effect of the over-liberalized global labour market. State, as an economic actor, should attract, retain and motivate the actual and potential labour force. It can, relying on the approaches of the different economic schools of thought, develop an effective migration policy that serves as the basis of sustainable development.

3. INTERNATIONAL LABOUR MARKET MIGRATION AND THE DEVELOPMENT OF THE HUMNGARIAN ECONOMY

The 2006 conference of the UNO in international migration and development confirmed the relationship between emigration of individuals and

the development of the country of origin. Although it did not draw firm conclusions about the nature of this relationship, it pointed out that migration and development are inter-related, this relationship is complex and further inquiries should be made into this issue. Recommendations so far have placed emphasis on the demands of the host country rather than the immigrant or the needs of the country of origin. At the same time, the American Congress also addressed the immigration reform. However, the negotiations did not deal with the impacts of the suggested reforms on the development of the country of origin.

Hungary has gradually been present in the migration processes. The population of the European continent is decreasing which issue is the most significant in the East European countries. The most remarkable decline may happen in Bulgaria and Russia. The former may lose 38% of its population of 7.8 billion, whereas, in the latter one, the population will decrease by 17%, that is, by 25 million people. According to the forecasts, Hungary's population of 10.1 million will be 8.9 million in 2025 and 8 million in 205021. Our neighbouring countries' population is also diminishing considerably22. Although the migration loss is difficult to be proven in east European countries and in central-east European countries, it can be prognosticated, and it will have demonstrable macro-economic consequences.

The macroeconomic indicators and the balance of migration – with special regard to the immigration indicator – move together in the first decade of the 21st century. In the short run, the effects of migration on demand and supply in the labour market should be taken into account In the long run, its effect on the productive capacity of the economy has to be attention to. The lack of the labour force (human resource) may become an important factor in the growth pace of the net national product, that is, in the stoppage of the growth of production. Maintaining competitiveness and sustainable development should also be supported by influencing migration processes in Hungary as one of the Eastern-Central European countries.

A tight positive relationship can be observed among the indicators describing the economy and society and the balance of migration per 1000 persons, in the light of the data between 2001 and 2005. At the county level the capital strength of enterprises operating in the county, the internal balance of migration and the net average earnings contribute predominantly to the change of the international balance of migration. It is also influenced by the employment and housing conditions. By managing these factors via economic policy, a region's (county's) ability to retain its population can be improved, the emigration can be decreased, thus, the development can be maintained.

The main source of loss is losing the highly qualified workforce including not only scientists, young intellectuals, doctors, but also businessmen, investors who leave the country with their multiplicator capital. The emigration of the

young workforce who have secondary vocational qualifications may bring about a considerable deterioration in the employment structure and the productive capacity of the economy. Employment policy, within economic policy, should pay a special attention to hinder the emigration of intellectuals.

According to my research on this subject there is a considerable internal and international migration in Hungary, with special regard to the economically backward counties. The growth of the population has slowed down in these regions, with the exception of some special subregions, the decrease of the population can be observed. It comes, apart from the low number of birth, from the negative balance of migration. The decrease of the population, as I prove in the previous two chapters, worsens a given region's productive capacity and competitiveness.

The emigration of the population causes a vicious circle because it brings about labour shortage which, aggravated by the bad economic situation, exerts a push effect to the mobile part of the population.

Hungary is also involved in the quickening of the international migration; the EU accession just strengthened people's willingness to migrate. I assert that the migration potential is large and increasing in Borsod-Abaúj-Zemplén County. The motivation and willingness are different in the case of the various social strata.

Some large nations have prepared to the treatment of the growing migration in their migration policies, in which coordination and precise data collection get an outstanding role (Verweibe 2006). The techniques of managing migration do not exist in Hungary. A well segmented migration policy is very important for the future.

The potential of emigration abroad strengthened in Borsod-Abaúj-Zemplén County between 2001 and 2005. A path model can be designed on the basis of the survey data, that is, there are stignificantly strong influential criteria. The EU accession has changed the strength of the migration potential and the explanatory criteria behind it to a lesser extent. The criteria explaining emigration are more deliberate, the opportunity of working abroad has come closer to the population of working age. Once the factors determining emigration are known, one can formulate economic policy and communication that help retain the population. The changed opportunities can make gross emigration propensity net, they can turn potential into reality. Integration jeopardizes the labour market of the less developed regions, which necessitates deliberate market protectionism.

In the healthcare sector, for instance, both doctors and other medical professionals demonstrate a higher than average emigration propensity. The emigration path model (the strength of specific explanatory criteria and their consequence) differs from that of the total population. Emigration is a real problem in healthcare. The specialized policies, regional and county strategies

have to pay special attention to the retaining and attracting the endangered labour market strata.

There may be other, even more, endangered labour market strata.

4. RECOMMANDATIONS AND UTILIZATION FOR DEVELOPING A REGIONAL MIGRATION POLICY

Regional (economic) policy is more and more important in the 21st century. Strategies relating to migration are essential part of economic policy, namely, migration is primarily a question of national security and secondarily it is an economic issue. That is, its labour market aspect tends to be neglected, which I think, is a wrong approach. Although I am aware that the international agreements determine the political, legal and economic life, I suggest that the national employment policy should place more emphasis on managing migration in order to decrease the negative effects of the emigration processes and make use of the positive effects.

Hungary is a sender, a transit and a host country at the same time. That is why we should draw conclusions from other countries' practices. It is important to notice that migration influences growth, redistribution and the sustainability of the pension system. This process needs to be managed. Immigration, especially in the case of qualified workforce, may strengthen the domestic economic growth.

Apart from the potential benefits of immigration, the country has to prepare for the emigration of its labour force. Since qualified workforce is a key factor of competitiveness, one objective of a nation's economic policy is to utilize the knowledge of its citizens, so make sure if they move abroad temporarily, then having returned, they can make use of their experiences at home.

A geographical inequality is characteristic of the labour market in Hungary: the level of employment, the rate of unemployment and the inactivity rate differ by regions. Its reason has been different in the various decades after 1989 (change of regime) (Tóthné Sikora 2007).

4.1. *Recommendations concerning the regional migration strategy*

I formulated different scenarios at the end of my research using the GEO4 report as a basis:
- Market solution: The achievement of human prosperity is facilitated through the support of the private sector. That is, the government strives to create favourable domestic conditions for the workforce; and to adopt market-compatible solutions to mitigate the adverse effects of migration.

- Political solution: The government is able to stop emigration using political tools. It also attracts knowledge in order to help backward regions. It runs state-owned research institutes and supports educational institutions in the country; it concentrates the state investments in the lagging regions.
- Safety: Here the government and the private sector compete for the control. It is important from the point of view of migration because in this case there are scenarios in which self-regulation and re-burdening have role.
- Sustainability: It entails the cooperation of the private sector, the society and the government in order to ensure human welfare. (Labour) migration develops in a way that the labour markets of the less developed countries of Europe are able to reproduce themselves: in this way the systems of the welfare-state based on redistribution will not collapse; the classical social insurance system is able to work.

Strategies are based on interests: it is the interests that answer the question why a strategy is necessary and the environment determines where the strategy should be implemented. The strategy itself refers to what and how should be done (Korompai 1995). In order to lay the groundwork for migration strategy, I designed the following PAD model:
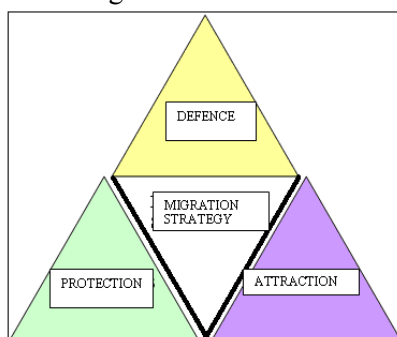

Figure 1
PAD Concept of Migration

Source: own compilation

a) PROTECTION: means to curb the immigration jeopardizing the County, the objective of which is to maintain the fragile peace of the society. Although the emphasis of my dissertation was to call attention to the losses caused by emigration, one has to pay attention to immigration as well. On the one hand, I assert that a strong and selective procedure of getting residence and work permit is necessary. However, EU citizens' migration should not be administratively hindered. One way of protection is strengthening the national self-awareness, interpreted in its correct meaning. This means, that Hungarian employees or employees from the

County should enjoy preference. On the other hand, the society and the people employed in infrastructure facilities should be prepared for the rippling world-tendency that more and more foreigners will settle down.

b) ATTRACTION: Because of the loss of population (natural loss and emigration), the demographical self-reliance of the County has become less and less. The labour market trends, as I have proven earlier, clearly necessitate supplementing the loss of the population from external sources. The demand is twofold: highly qualified workforce with innovative marketable knowledge and highly skilled workers are needed. Similarly to the theory of the American migration policy, the migration strategy has to support immigration of artists, doctors and people coming from afar because their presence may revitalize competition.

c) DEFENCE: refers to retain the population born in the County to decrease the willingness to emigrate. It is essential that policy makers concentrate on people with outstandingly good skills (innate and gained competences). Two solutions are recommended at this point: on the one hand establishing local educational and research bases, financing and supporting public education. Besenyei (2009) argues that "knowledge centres are becoming today's economic and political centres"29. Those colleges and student workshops are important in which students become aware of their talents. However, as Professor Polonyi warns, we should not become a knowledge-factory. On the other hand, paving the way for the circular migration is also the task of the strategy. It means creating opportunities that motivates people working or studying abroad to return home. Areas of the County in bad social conditions also need special attention for economic reasons.

4.2.   Recommended tools for developing a migration policy for the County

1. "Mainstreaming": that is migration becomes a mainstream element of every special policy area.
2. Peer review.
3. Administration and institutions of migration policy; and the co-existence of the actors of migration with local community. Local governments' responsibility relating to migration should be enforced much more radically than it is today.
4. Creating an innovative milieu, one of the main task of which is retaining workforce. These environments have to include research bases and the belonging satellite offices.
5. The objective of promoting people's staying in home-land, by way of supporting them, tends to be obsolete after the EU accessions. The main question is that the doctrine of "staying in home-land" is still valid or not. Since the EU itself is not going into this direction, it is becoming an anachronism.

Characteristically, many people has been leaving for abroad for study and work and this trend is expected to get stronger in the future. The circular migration should be exploited through scholarship programs and through resettlement supported by the county chambers.

6. Governments' and local governments' support is essential for the increase of the weight of the civil society so that social institutions can cooperate with ethnic institutions in order to mitigate tensions.

7. Improving the mental environment: the migration strategy has to focus on treating the society's depression as well.

8. Scholarships granted by the government and the local governments to promote returning home or staying at home30. Scholarships should support the scientific career of those young researchers and teachers who intend to do their scientific job at a regional (or county) company or institution. Academic positions and PhD scholarships financed at county-level should be introduced.

4.3. CONCLUSIONS

The central statement of this survey is that the competitiveness of Borsod-Abaúj-Zemplén County and the international migration affecting the County are closely linked, the international migration can be influenced and it is important that the region's economic policy pays more attention to the labour migration processes. I carried out my primary and secondary surveys within the boundaries of economic paradigms. That is, the various economic theories cannot clearly define either the direction or the extent of the migration processes but they have an explanatory power that should be taken into consideration in surveys preceding policy-making.

The main conclusion can be that whereas the economic and sociological theories deal with the impacts of migration on the host countries, the negative impacts occurring in the sender countries will be important in the 21st country. The competitiveness of a region is determined by the composition of the labour force both in terms of quality and quality and also its ability to retain its population. The task of a region's economic policy is to attract, retain, motivate and to efficiently manage its population which includes that migration strategy is art of its employment policy. Tools that would be able to treat the rapidly growing lack of balance are missing in the labour market. The competitiveness is jeopardized by the lack of coordinated migration strategy that would protect the labour market. It is a great loss for Hungary if its investment into the human capital is harvested by other countries. Retaining workforce should get a greater role in the employment strategy.

Hungary, and especially its Counties in bad conditions, will be demografically endangered in the next decades. The aging population, the norrowing employment, the financial crisis – among others, are those negative

tendencies which influence our future circumstances. Under these determining tendencies, we cannot lose our most important factor of production, namely, the innovative human beings. Politics are to give more attetion to policies to retain population on its place.

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THE RENEWAL POSSIBILITIES OF THE MEASUREMENT OF SOCIAL PROGRESS

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During the measurement of social development and welfare – based on the experiences of the last few years – the Gross Domestic Product (GDP) does not provide an acceptable guideline because it does not take account numerous factors which have a significant effect on welfare (eg. environmental damages, "black economy", social differences etc.). It is advisable to define the status of a given country by that kind of metrics which contain the elements of actual welfare and sustainable development.

1.   INTRODUCTION

In the recent years it was represented on various vocational forums that the GDP does not illustrated acceptable, accordingly do not measure well the social progress. Before exceeding the GDP it is worth to take a question that where we could improve the actual applied measurement methods of economic performance? The measurement of production is essential to the measurement of economic activity. This is the time for transform the systems of economic activity measurement towards the fact that they reflect better the structural changes which are the characteristics of modern economic development. Actually because of growing rate of services and the production of more complex products it is harder to measure the output values of economy than in the past. Nowadays lots of complex products have a multi-dimensional characteristics and changing fast. This is evident in case of products like cars, computers, washing machines and the similar ones but even more characterize the services such as medical services, education, information and communications technologies, research or financial services. In some countries and sectors the growing output performances means the improvement of produced and consumed goods' quality but not the growth in quantity. The grabbing of qualitative changes is a huge challenge but indispensable to measure the actual incomes and actual consumption as the two things which determine the human financial welfare. The underrating of improvement in quality has an equal meaning with overrating of the inflation rate and that is why with the underrating of income. The opposite of this is true in when the improving in quality is overrated.

2. THE STATISTICAL DATA USED TO MEASURE THE SOCIAL PROGRESS

The statistical indices are important factors in the social progress and the guidelines of valuation and determination of market operation. Their role grew in the last two decades because they reflect:
- the degree of population qualification,
- the complexity of actual economic process,
- widespread use of information technology.

Since there is a growing demand for information the statistics transfer newer areas.

The subject of our measurement determines our activities.

Conclusions are often drawn concerning whether which guidelines are good from the fact of the economy but if the measurement methods are not acceptable then the result based on these are also inaccurate. However there can be major differences between the significant socio-economic phenomena such as the standard metrics and public perception of inflation, unemployment etc.

These differences can be triggered by:
- the application of statistical theory is correct but there can be mistakes in the measuring methods
- it is disputed in many cases that which are the acceptable principles and how the different principles can be applied
- when there are big changes in income distribution the GDP or any other aggregated data per capita does not provide an adequate help in the assessment of situation
- the commonly applied statistics do not reflect all those phenomena which have a growing effect on human welfare. So eg.: the growing traffic maybe increases the GDP due to the growing petrol consumption but it has no such the same positive effect on standard of living.
- the communication method of statistical data can change the image of economic trends. So in this way the GDP has an important role while the actual income of households and national product can be more significant than the GDP. The GDP itself can be seen as a good index but its application is not always acceptable.

For a long time scruples are revealed in connection with the metrics of economic performances especially with those which are based on only the GDP. These numbers can be queried especially as the metrics of social welfare. In relation to the GDP it is well known fact that the measuring of social welfare especially in these economic, environmental and social dimensions that is for the sustainability is not acceptable.

3. THE INDICES USED TO MEASURE SOCIAL PROGRESS

The using of indices which are applied during the measuring of social progress can contain dangers because most of the indices are the simplistic indicators of the measurable reality. The capital characteristic of these indicators is their normative nature they have determined interest- and value system. One of the capital deficiencies of the indicators is that we emphasize, measure, take under control from the reality, gets into spotlight meanwhile with those indicators which remains in background can happen "anything". The well-chosen indicator of a given phenomena shows the most important totted characteristics of the phenomena in this way offer an opportunity to make comparison between the temporal, spatial, socio-economic groups and layers.

The concept of indicators

The applied indicator during the measurement of social progress is that parameter or value which point out, give information or description about the status, situation of a related phenomena, the environment or territory. The indicators are mediators between the statistical observations and the economic, social phenomena. In connection with the indices the most important viewpoint the comparison, comparability in time and between the different economic, social aggregates, groups (2). The indicators are overall metrics, which in connection with the key issue of the phenomena we wish examine, are able to introduce the positive and negative change of the phenomena. The indicators are the measurable aspects of society, economy, environment, project etc. and they monitor the direction and improvement of phenomena. Their main function is to decrease the quantity of information to be considered by the decision makers. While the statistical data has descriptive nature the indicators are chosen, explanatory indices according to a determined viewpoint. The indicators in order to meet their previously defined roles must fulfil numerous requirements.

The requirements of indicators

Among the indicators which measure the social progress the literature emphasize the followings:
- specific nature,
- measurability,
- accessibility,
- reliability,
- data reduction.

Ildikó Szűcs emphasize in one of her presentation that the indicator is parameter, tool, feature, hand and feedback (11). It can fulfil these requirements if it fulfils a number of other criteria. The Statistical Office of New Zealand in its study gives an exhaustive summary of the requirements of indicators. According to it the acceptable indicator:

- Be valid and meaningful (relevant).
- Be sensitive and specific from the view of the examined phenomena.
- Be based on researches.
- Be statistically reliable and watertight.
- Be understandable and easily interpretable
- Say its relation to the related indicators (how it conform to the other indicators)
- Give the opportunity for international comparison (be useable for domestic and international targets at the same time).
- Be able to deeper dissociation also (say not only globally, aggregated something about the examined phenomena but say something dissociation considering the territorial, social groups also).
- Be consistent in longer run.
- Be timely, available in time, up to date.
- Connect to the emerging and urgent socio-economic questions, the political decisions.
- Be compelling (impressive), interesting and exciting (be sensitive to the important questions).

Further important requirements the sensitiveness of indicator (changing ability). An indicator is good if it is able to reflect the changes of the examined phenomena but these changes can be understood by the user. Substantive viewpoint that we could separate the components of changeableness, the real, true environmental signs, effects from the external factors. After these question is raised that how we can choose indicator?

Choosing of indicators

We have to proceed circumspectly in case of choosing indicators. If we choose badly among the substantive features which are important according to us it has no effect if we measure well, accurately, in a reliable way even so we make a mistake. We could spoil the measure itself especially if the phenomena can be measured hardly, uncertainly, in a difficult way. The measuring with the help of indicators has a big danger that emphasized features of the phenomena given in metrics can change due to the interest so we could draw the wrong inference. Most of the experts suggest the "SMART" method to choose the indicators. Let the indicator be specific (S), measurable (M), attainable (A),

relevant (R) and trackable (T) and that is why it is meaningful (that is SMART). The viewpoints of indicator choosing as we can see are related with the requirements of indicators. (5)

4. THE POSSIBILITIES OF THE PROGRESS MEASUREMENT

The configuration of statistics can produce significant achievements for comparison in time and between the countries and regions. The international organizations started more and regularly repeated survey and their results are published and they also bring out summary publications. Like The series of OECD "Society at a Glance: Social Indicators (9); "The life is in transition" survey-series (3); as to the European Union the introduction of social indicators of Laeken, the report of its institution of Dublin "The report of quality of life in Europe" (EFILWC, 2003), the survey of "European Social Reality" (Special Eurobarometer 273, 2007), the recently started social consultations about this topic.

If we wanted to examine the conformation of social progress beside the GDP and we wanted to help its enhancement, the first step is a sort of agreement about the explanation of concept of social progress and the practical ways of its raise. For the judgement of conformation of social progress, with acceptance either of the definition the most expert proposes the summing indicator. Some example:

  – index of sustainable economic welfare (ISEW),
  – measurement of economic welfare (MEW),
  – human development index (HDI),
  – sustainable national income (SNI),
  – genuine progress indicator (GPI).

The other, more opened trend with lots of other indicators wishes to review all important components of the welfare and progress.

The Hungarian Cyclopaedia (10. vol., 321. pages) gives this definition about the welfare: "multi dimensioned definition which shows that a member of a society beside the income and consumption his state of health, free time, literacy additionally the state of public safety etc. is in which level". This mainly the same as the different recommendations which require for the examination of conformation of economic welfare, beside the GDP and the analysing of partial indicators, the followings:

  – the distribution of total income according to households and individuals;
  – the conformation of free time and living conditions;

- the social components of welfare, the difference in incomes, in employment and advancement opportunities, in healthcare conditions, in acceptance and appreciation;
- the condition of natural environment and
- subjective feelings which express satisfaction and happiness.

The subjective measurement of the change and level of happiness and satisfaction, furthermore the comparison between countries are pressed by lots of doubtfulness they are claimed as they serve important edifications. (8)
Hungary also takes part in the mentioned international surveys and from this reason beside the conformation and sources of economic growth the statistics and research gives a more and more detailed view about the welfare and the components of social progress. We could mention the newest publications of KSH, between them "The indicators of sustainable development in Hungary", "Social Characteristics" and "The social supplier-systems" titled report; "The life quality of Hungarian population at the turn of the millennium" (6) titled essay, "Hungary in the reflection of social indicators" in the TÁRKI Social Report in 2006. (4). These publications contain plenty of rows, international comparison barely, their integration is further task.

The development direction of the social progress measurement

Among the experts lots of people tried and try to create different, complex indicators with variant success. More complex and acceptable indicators for measuring standard of living and quality of life:

- Net economic welfare: it wanted to complete the national income besides trying to create system in the environmental changes.
- Index of sustainable economic welfare: it is based on the value of GDP then it considers with its corrugation a part of favourable and derogatory environmental and social effect.
- Genuine progress index: it is based on the personal consumption which is considered by GDP but modifies it with the conformation of income distribution then add or deduct the different social, ecological benefits and costs.
- Human development index: beside the GDP purchasing power per capita it considers the expectation of life at the birth and the education.
- Living planet index: it evaluates the conformation of biological diversity base on 1300 vertebrate species population.
- Ecological footprint: it shows the how many environmental sources can be used and how many are used from these.
- etc.

The mistake in case of the most indices is that they contain numerous parameters which do not transmit useful information and they are methodically wrong. We also have to consider that how much money should be spent on an indicator-system like this and parallel with this what its reliability is like. Considering these viewpoints lots of countries in the world moreover the European Union, UN, OECD created their own indicator-system which is able to measure the social progress. But the national specifications and interests did not baffle the researchers into the same way they became distributed in the project. Nowadays three main directions of the project development are referred:

− According to one of the approach the quality of life could be defined by objective indicators because it can be deduced from the objective indicators that they have no importance.

− The second standpoint says the opposite of the previous one: according to this the subjective indicators – such as the satisfaction with life, the feeling of general welfare – say much more than the objective indicators because they give an image about the welfare of society, characterize the quality of life.

− The third, more or less combines the two directions and perhaps according to an increasingly dominant view the life quality of a society can be only known by the complementary using of objective and subjective indicators together. By this paradigm the welfare has objective and subjective elements and the indicators measured by these create a whole image about the condition of a society (1).

This period was characterised by making clear the theoretical frameworks and making tests to solve the methodological problems so primarily the explanation of concept of social welfare and its operationalization means the problems which must be solved.

5. CREATION OF THE INDICATOR-SYSTEM

That kind of complex indicator-system has to be created based on the available indicators which aims the measurement, development and impact study of social progress. More kind of viewpoint can be kept in mind during creation of an indicator-system. The primary aim is to harmonize with the targets of economic policy. Beside this the international specialized literature and practice should be considered. The determination of indicators is the result of a multi step process. At choosing the type of indicators it is practical to complete the GDP with the environmental and social indicator. The indicator-system that should be created has to cover the following three specializations:

- economy,
- society,
- environment.

Designing process

During the planning of indicator-system the principles have to be determined as standpoints which help the measurement of social progress. The principles based on professional consensus are the followings:
- The indicator-system gives a comprehensive image about the development.
- Be suitable for measurement of domestic specifications and the international comparisons also.
- The applied indices have to be objective metrics.
- Besides the snapshot-type analysing of the current situation that is also important to secure a long run review and a long row should be available.
- The chosen indicators have to build on stable methodology and to be secured the good quality of indicators.
- The indicators have to be current so they have to refer to the previous year.
- The using of composite indicators has to be foreborne.

Considering the international practice it is practical to use the indicators that are used in case of the creation to Lisbone Strategy of EU structurally- , the EU sustainable developmentally- , and the Laeken indicators are expedient to use during the creation of indicators (primary viewpoint). But these cannot be received completely the indicators have to be adopted the domestic conditions. (7)

Objective and subjective viewpoints

In case of planning the measurement of social progress we have to consider the fact that the living standard of the people depends on the objective circumstances and givens. Steps have to be taken that the measurement which refers to the health, personal activities and environmental conditions of the people should to be improved. Especially we have to make extensive efforts to develop and execute such a solid and reliable measurement which are refer to social relations, political agencies and doubtfulness and these demonstrably influence the satisfaction with life.

For appreciation of living standard the relevant information shows further the reports and comments made by the people themselves and involves

measurements about the "actions" and freedom of people. Practically that is important the opportunities of people, the borders of opportunities, the freedom of people and the life that they appreciate. The chosen between the relevant actions and opportunities in all living standard-measurement rather there is a judgement in values than technical task. While accurate list of the features related to standard of living undisputedly based on judgement in standards there is an agreement in that the standard of living itself depends on the health, education, everyday activities (which includes the right for work and acceptable residence), participation in political processes, from the social and environmental conditions in which the people are living and from those factors which conform their personal and economic safety. For the measurement of these specifications the objective and subjective data is also needed. The challenge on these fields is that we improve the previously achieved results, determine the deficiency and increase the statistical capacity in those fields where the achievable indicators are not satisfactory. (10)

6. SUMMARY

During the conformation of measuring system of social progress one main aim is that we determine to the GDP as the borders of indices of economic performance and social progress, including the methodological problems related to measurement of GDP, we have to review that what kind of information needed to create a more characterized indicator of social progress, to make evaluations about the alternative measuring methods and to debate that how we can give information about the statistical information.

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THE MISSING TAX

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1. INTRODUCTION

Experiences accumulated during the last two decades concerning taxation, Hungary's recent accession to the European Union and the intention to enhance the country's competitiveness are the main reasons for reforming the present Hungarian tax structure. Any further increase in the tax wedge cannot be considered as a possible solution as this would harm the competitiveness of the country. At the same time, considering the parallel need to maintain or even increase the state's expenditures, decreasing taxes cannot be a realistic solution either. The system must be moved in the direction of structural changes, which means that the tax wedge of some taxpayers can increase leaving the aggregate tax revenue unchanged, or even increased, but cannot be decreased. This seemingly paradox task can be solved by broadening the tax base on the one hand. Besides the simplification of the whole system of taxation, the rules of distinct tax schemes, benefits and tax administration are also needed. A further important aspect of the reform is the increase of transparency, and the efficiency of control and payments. The comprehensive modernisation of our tax system must give answers to the challenges of the international tax competition, the revenue needs of the budget and the distribution of the tax wedge by orienting the economic actors' decisions to a favoured direction at the same time.

Reforming the entire system of taxation should result in increasing the role of local taxation – and local revenues in a wider sense – letting the principle of subsidiary be realized in practice filled with real contain. This can only be imagined if the local governments are given instruments and money, not just tasks to solve, in order to bring them to real decision making situations. In more developed countries major differences can be found compared to the Hungarian situation in terms of the distribution of the right to tax among the central, regional and local levels of authority. Based on the examples of these countries it should be thought over to enhance the right of local authorities – based on their own decisions – to tax and to form a new system of taxation on the local level as well. This study aims at making a contribution to the preparation for making this decision with the help of the results from a model's calculations. Emphasis was put on the reform of the present unity-based local wealth taxation and its exchange for a new, value-based property tax.

2. THE MODEL OF THE VALUE-BASED PROPERTY TAX

Property tax is part of the present system of taxation in Hungary as well, under the names of building tax or land tax. Its importance can be neglected even at the level of local authorities' tax revenues, giving only 1.5% of the local governments' revenues on the country's average. The main question of my research was whether the modelled value-based property tax is able to fill in the space of the present local taxes or a fragment of them. The answer which can be given based on the calculations can be regarded as positive from several aspects. On the one hand, it can be justified from the tax-theoretical aspect that value-based property tax is a better match for the principles of equity and social just than the unity-based similar tax, while on the other hand it can be a solution to internal problems of the tax system by broadening the tax base and decreasing the tax wedges of enterprises, letting their competitiveness be improved through this, and increasing the tax revenues of local governments at the same time. Thirdly, by forming a mathematically easily useable and flexibly changeable model, the scale of changes in the structure of the tax wedge and the wedges of distinct tax payers became measurable. Data standing at our disposal made it possible to prepare a country level estimation of a potential scale of revenue to be expected from this type of taxation, and the extent of tax wedge by the same nominal tax revenue giving distinct combination of benefits and tax keys by the help of the model. Based on this analysis this new version of property taxation would not be introduced as an additional tax scheme but instead, as elements of the present system.

When making the calculation with the econometric model I divided the properties into two groups, one group contained properties owned by the population while the other the enterprises' properties. On the one hand, these decisions must have been made for methodological reasons, as I had a different database standing at my disposal for inhabited properties and for enterprises properties. On the other hand, the emphasised aim of the effect analysis, besides answering the questions of winners and losers of the new system, was to make us able to define the scale of costs and benefits too. Property tax, if other aspects of the tax system are not considered[1], would distribute a large fragment of the tax wedge to private persons owning property while winners would be the enterprises, based on the calculation of the model. The scale of this redistribution of the tax wedge depends on the benefits included in the system and the tax key used.

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[1] Without considering the effects of tax benefits, social subsidies or other reduction of the tax wedge, evolving for example from possible decreases of other tax keys.

Calculations accomplished with the use of the model were based on four possible tax keys: 0.25%, 0.5%, 0.75%, and 1.0%. As a first step it was analysed what level of revenue the local governments can expect at distinct tax keys. The second question to analyse, related to the first one, was to determine the possibility of substituting the present forms of taxation by this new, value-based property tax, given the level of revenues to be expected from distinct tax keys' introduction. Tax payers' aspect of the question is – calculated for distinct tax keys again – the determination of tax wedge evolving from the new system of taxation for private persons and for enterprises. The last question was the effective tax wedge's calculation after considering the modelled benefits too.

Based on the calculations, accomplished with the model, it can be concluded that value-based property tax fulfils the requirements to broaden the tax base and to decrease the tax wedge of enterprises at the same time. However, the increase in the tax burden of the population can be regarded as a critical point of this system (though). Considering the ability to bear taxes and budget aspect as well, based on the calculations accomplished it can be proposed to maintain the present system of industry tax and to introduce a value-based property tax with a 0.25% tax key. Parallel to this, building and land tax would be seized in its present form and communal tax could be neglected as well. The following two schedules show a 10 million worth property's tax wedge in case of the analysed tax keys on yearly and on monthly basis.
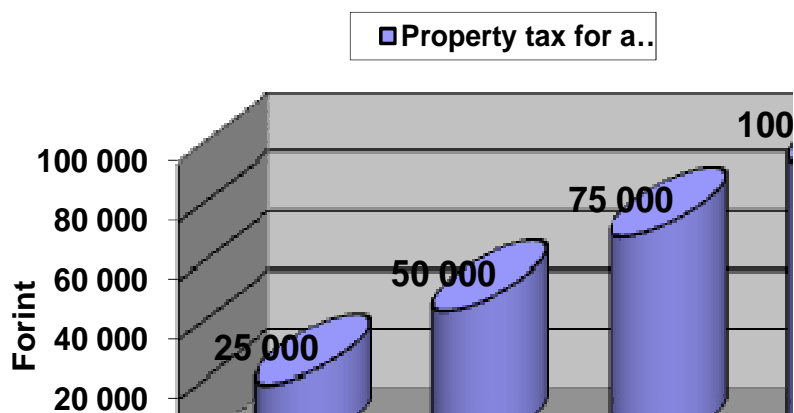

Figure 1/a
Yearly value of property tax for a 10 million HUF worth property
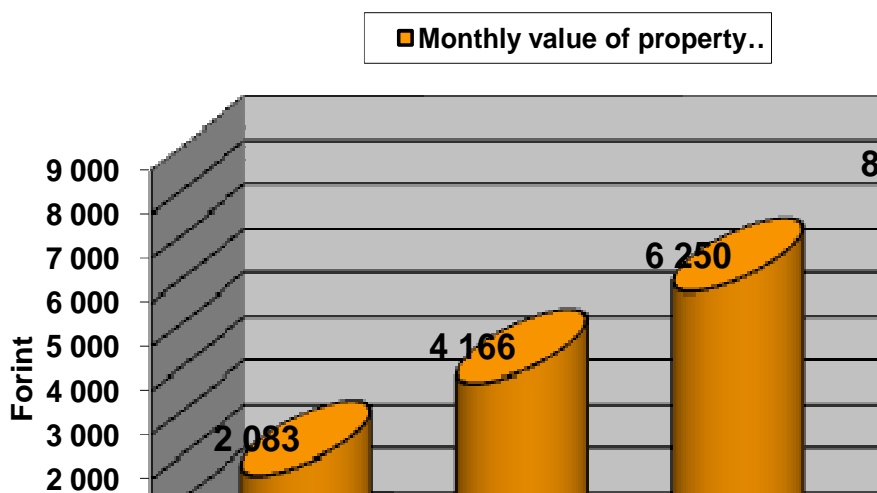Source: own construction

Figure 1/b
Monthly value of property tax for a 10 million HUF worth property
Source: own construction

Besides the aimed consequences, other effects will also be generated by the introduction of a value-based property tax according to the model. Black economy could be reduced, because the property tax can be used to decrease the tax base of personal income tax and company income tax. The same effect can be attributed to the fact that billed costs of development; redecoration and modernisation of the property will decrease the tax base of the property tax itself. This latter opportunity is major importance from the aspect of enhancing the settlement's stock of properties, so increasing the potential tax revenue of the local authority on the long run.

In the course of setting the model of value-based property taxation, the minimal precondition was not to allow local governments' revenues to decrease. In the model, properties are divided to two groups; one group contains the private properties of population serving housing purposes, while the other contains the properties of enterprises. The property tax unified value based, but for research purposes it seemed to be important to make this distinction, as this enables us to gain full picture of the distribution of tax wedge among stakeholders. It is also of high importance to change the unbalanced nature of taxation's structure and besides enterprises population should also bear some

burdens[2] of local taxation serving the improvement of local services' quality and quantity. Based on the model, this change can be followed punctually.

In the course of determining tax exemption and benefits, it was of major importance to choose such forms of exemptions and benefits which are narrow and easily controllable, but focus on the aspects of equity too. A further important aspect was in the decision making process to consider individual circumstances only to an extent which will not turn property tax to poll-tax's direction. Matching this, only properties of the state, local government and churches would qualify for exemptions. Following the logic of the present system of tax regulation it is considered as a benefit to enable those who pay personal or company income tax to decrease their tax base with the paid property tax. As pensioners cannot use this possibility they could receive a 50% benefit from their tax base on the properties they own. Calculations were made for the realistic cases but the method can be extended and be easily used for individual cases too.

To give incentive for the owners to increase the values of their properties, further benefits could be given for investments increasing the value of the property from the tax base of the personal or company income taxes. This would also serve the whitening of the economy in the sector, as owners of properties would be encouraged to ask bills and to pay their income or company taxes. Another possibility is to enable the reduction of property tax's base. The positive side-effects of the first version would come into force in this case too, and the relationship between the subject of tax and the benefit would be more direct in this case. When analysing the problem from revenues' aspect, local governments would win over the long run even if they should account for some temporary reduction in their tax revenues, as the values of properties in their territories would increase permanently. Increasing property values by unchanged tax keys would secure and ever growing level of local public services which enables further increase in the value of properties.

Considering all these aspects, it was endeavoured to make up such a simple form of the model which enables to accomplish calculations easily, while the punctuality of calculations will not be harmed at the same time to such an extent which distorts objective evaluation. A further aim was to enable the flexible improvement of the model by integrating other element matching tax theoretical, budgetary etc. purposes, according to the intentions of the regulators.

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[2] When determining the tax keys it was an objective to keep in mind the ability to bear burdens of taxation too. One of the most important measures for a tax scheme's efficiency is the ratio of realized to potential revenue.

3. METHODOLOGY

In case of a tax scheme planned to be introduced – like the value-based property tax – reasons of effects are difficult to identify, and cannot be related to distinct elements of the regulation, showing complex contexts to each other too. This was the reason for searching for such an effect analysis method which enables the description of a multi-variable complex model, dividing the problem to its elements, making the final results comparable. Scenario-analysis fully meets these criteria. The tax burden for the distinct cases of tax keys and tax benefits combinations for different values of properties were determined by the use of this method. Small differences in scenarios can be well shown in the tree structure. It can only be decided knowing the result which solution meets best the intentions of the regulators.

Not only the figures of different scenarios, but their planning also happens in the tree structure, the branches of which show different variables and the competing scenarios can be found at the ends of the branches. Different results can be compared in the aspects of different objectives and after the optimal scenario was picked, the elements of the chosen form of regulation can be gathered moving backwards on the branches of the tree structure.

In order to increase transparency of property values, tax keys and benefits a scenario analysis tree was accomplished. In the figure included here only five of the calculated 120 scenarios, concerning the average values of properties and the tax keys and benefits preferred by the author. On the figure a 10 million HUF worth property's case of a married couple can be seen as an example. Assuming that ownership is equally distributed between them, if one of them is a pensioner, the property tax they have to pay without benefits would be 25 000 HUF, but with benefit it will be 18 750 HUF. This evolves from that assumption of the model which lets the pensioner of the couple to have a 50% discount on the property he/she owns. The case is shown on the next schedule:
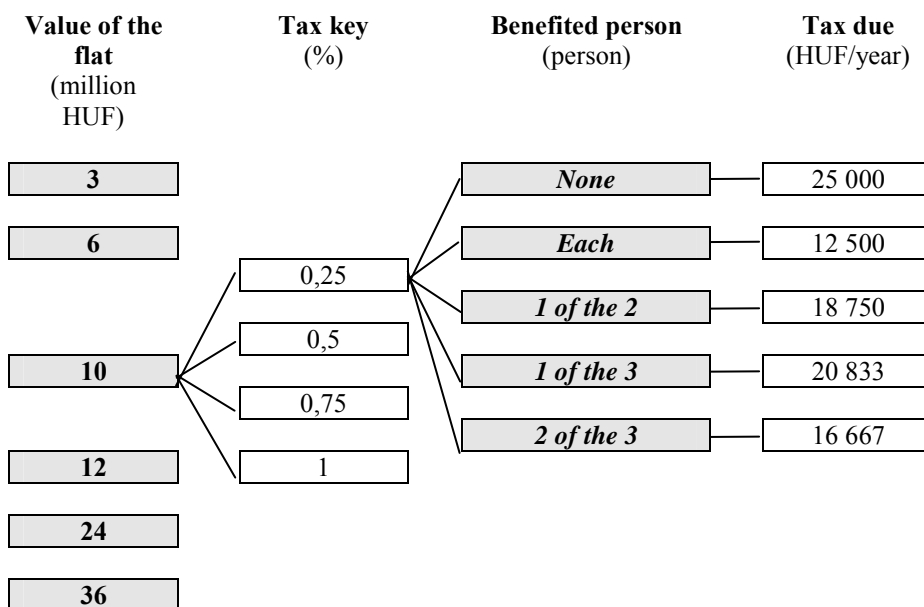
Value of the flat (million HUF)	Tax key (%)	Benefited person (person)	Tax due (HUF/year)
3		*None*	25 000
6		*Each*	12 500
	0,25	*1 of the 2*	18 750
	0,5	*1 of the 3*	20 833
10	0,75	*2 of the 3*	16 667
12	1		
24			
36			

Figure 2

Value based property tax's scenario analysis tree

Source: own construction

The scenario analysis technique will automatically generate numerable changes evolving from changes in the parameters built in the model. The automatism can easily be followed on the figure. The present model's dependent variables which are shown in the three columns of the table, – the flat's value, tax key and benefit – can automatically generate the tax due to changing either the number of the parameters in the columns and the number of columns themselves.

4. SUMMARY

Based on further calculations it can be concluded that enterprises' tax wedge would be decreased on a large scale in any case any of the model's scenarios were introduced, while local governments' revenues would also increase in all cases, even though the extent would be different. Parallel to this population's tax wedge would increase seriously. The next problem is to find that optimal solution which would mean a bearable increase in the tax wedge of the population. So we arrived to one of the most sensitive questions of property taxation: with what extent can the wedge of taxpayers (Hungarian population's) be increased. This is especially difficult for the layer of society without income,

if they are to pay tax on their property which does not raise any income for them. This is why the impact analysis of the model calculation are important, based on which the scenario of the optimal combination of tax keys and benefits can be chosen, which will be able to satisfy the principle of equity maximally, harmonised with budgetary aspects, – based on Colbert's famous statement – „to pluck out the highest number of feathers possible, on the expense of the least cackle". Based on the theses of tax theory and of the results of model calculations, the optimal tax wedge would be around the tax key of 0.25%. This option could secure the satisfaction of the equity principle, and meet the requirements to broaden the tax base too, while contributing to the reduction of enterprises' tax wedge and parallel to all these even the inhabitants were not to pay an unbearable high tax , and the tax revenue of local governments could be increased at the same time.

It is not the task of this study to go into the details of the following question but let's mention shortly that even if the highest level of carefulness is shown, the introduced system cannot operate without problems – especially in case of small settlements with an ageing population and regions suffering a high level of unemployment – in case the government will not use efficient and aim-oriented social policy instruments parallel to changing the tax regime. A possible way of solving this problem can be to interpret property tax as a micro-regional or regional tax, distributing some of the tax revenue among those settlements which do not have enough property tax bases. Of course richer settlements' interest must also be considered and their development potential cannot be hurt by this. This serves the interest of the neighbouring settlements too, as the development of them can be distributed among the others if the development is strong enough.

The results of model calculations accomplished it can be concluded that value based property tax can be a proper way of reforming the present system of local taxation. It is a question of the regulators' intention, – which assumes the knowledge of tax wedge distribution after restructuring the tax system and the relationship among maintained elements of the present system and new elements to be introduced – what weight should be put on value based property tax among local tax schemes. The decision among the four tax keys and proposed benefits analysed before is also determined by the above mentioned aspects and regulators' intentions.

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GEOGRAPHICAL ASPECTS OF SOCIAL AND SOLIDARITY ECONOMY

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1. INTRODUCTION

Perhaps the most essential property of SSE is that, on the one hand, it seeks local responses to global challenges and, on the other hand, it intends to present a real alternative to global systems on the basis of local experiences. It already follows from this double feature that geographical thinking can add valuable parts to the elaboration of the theoretical background of SSE.

Geographical effects can be discovered in the development and operation of SSE. We focus our interest, following from the basic idea, on the territorial differences of global and local conditions. We can get closer to grasping the nature of SSE by understanding the territorially different appearance and impact of global challenges at global level, and the differences of social and economic environmental conditions influencing local issues at local level. In global terms, the basic units of the survey are the global grand regions sketched on the basis of the centre-periphery theory (Wallerstein, 1974). We are going to overview the differences of local conditions in terms of the urban-rural relation using the urbanisation theories (Tonnies 1887-2002, Simmel 1903-1950, Harvey 1985).

In my paper I attempt to set up the system of *global and local geographical effects influencing the development and operation of SSE*. The characterisation of the particular types is underpinned by the analyses and case-studies of SSE initiatives operating in real geographical territories in the intersection of global and local spaces.

Table 1
Case-studies used by geographical territory types

	Centre	*Semi-periphery*	*Periphery*
Urban	Canada – Québec[1] Italy – Rome[2]	Poland – Warsaw[3] Slovenia[4]	Peru[5]
Rural	France[6]	India[7] Hungary[8]	Senegal-Dakar[9]

Source: own compilation

2. SIMILARITIES AND DIFFERENCES OF INTERPRETATION

There are many definitions of social and solidarity economy in the academic and practitioner life. The definitions are similar in that:
  a. They put community goals ahead of gaining profits
  b. Its management is independent of state and government
  c. Democratic decision making is typical
  d. People and work have priority in distributing gains instead of capital share.

However, there are differences, which are the followings:
  • Target groups of SSE: can they be only those in disadvantaged situation (what kind of disadvantages), or social and territorial disadvantages are unimportant and any community setting alternative goals can come as SSE participant.
  • Its size and weight in the local economy: is it complementary to the activities of for-profit enterprises and public services or is it an equal partner with them in local employment and providing local services
  • Its embeddedness: is part of the multi-sector capitalist market-economy complementing private and public sectors, or is it an alternative of capitalist globalisation
  • Its activity areas: are they limited to social services or they can encompass any economic activities?

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[1] Laville at all 2005, Neamtan 2002, Mendell 2003
[2] Reynaer 2008
[3] Kubin 2008, Rymsza, M – Kazmiarcak, T. 2008
[4] Stavrevic 2008
[5] Annis, S. 1988
[6] Behagel 2008
[7] Sikka, B. K. Saraswat S. P. 1993
[8] G. Fekete, E. 2006
[9] Barker J.S. 1987, Fonteneau, B. – Develtere, P. 2009

- Its actors: are users and customers also involved apart from employed and if so then to what extent is working voluntary
- Its institutionalisation: it includes the evaluation of belonging to the SSE range of organisations like cooperatives and foundations.

The differences in interpretations also indicate different practices as well. There are various types of SSE-s on different points of Earth.

3. GLOBAL UNITY AND DIVIDEDNESS

With the advancement of globalisation, the challenges calling SSE to life in its original form have also become global and new elements have grown strong. Nowadays we can talk about a *new social economy* (Reynaer, 2008). One of its features is that it focuses on reducing environmental and social problems. Unemployment, environment pollution, food safety, depletion of energy sources, climate change, urbanisation problems, poverty, migration, increasing role of information technology are unavoidable and, among conventional structures, unmanageable problems on any point of Earth. The survey of the discrepancies of SSE by grand-regions can be found in the analysis of the North-South dimension (Favreau 2000, Tremblay 2009). In spite of the discrepancies, the above mentioned surveys advocate the global unity of SSE. The survey using the more tentative, "centre – periphery – semi-periphery" approach – beside recognising the basic goals and principles – reveal further structural differences that bring about differences in the SSE's way of appearance, depths and activities. The SSE-related questions are different on the basis of the varying emphasis placed on global challenges by grand-regions and the different demands resulting from the distinct social and economic peculiarities of the regions. Therefore, the objectives, the target groups, the typical activities and institutional structures are different.

In the centres: Unemployment again shows an increasing trend. The decline of the welfare state cannot protect its citizens from the harm of unemployment any longer. The wide range of public services, developed previously, are shrinking, they are unable to follow the more and more versatile demand.

Civilians, who gained strengths via experiencing democracy for centuries, try to cure the shortcomings of the market and state in the framework of the SSE. Therefore, they undertake re-trainings, re-integrating people driven out of labour market, developing disadvantaged urban or rural regions and offering services for special groups (e.g. handicapped, homeless, struggling with rare diseases, immigrant, belonging to cultural minority) (Mendell 2003, Reynaer 2008). Agricultural growers' and craftsmen's economic co-operatives are mainly not regarded as part of SSE because of their profit orientedness and the activities not under the control of members; only the social co-operatives of

disadvantaged people are seen as its part (Defourny – Develtere, 1999). Governments increasingly recognise the significance of SSE in improving the welfare of people and in mitigating the damages caused by the neoliberal economy. However, SSE is rather seen as a social than as an economic issue. It is rather complementary to neoliberal economy than its alternative.

In the semi-peripheries: the foundations of public services have developed, however the access is limited for some social groups. The formal economy still possesses recognisable reserves that can seemingly be mobilised via developing infrastructure and human resources. Significant difference can be observed between developing countries, having broken out from the periphery status, and post socialist countries. The former ones display similarities with peripheries in terms of SSE, whereas a peculiar situation has developed in the latter ones due to the communist past.

The role of the state suddenly dropped and the social discrepancies suddenly increased in the *post state-socialist countries*. The strengthening of the civil sector, undertaking self-support, is hampered by the still existing etatist view, expecting answers "from above" to the cumulated problems. SSE is sidelined temporarily. Governments hope for the profit-oriented economy to gain strength, and, diametrically opposed to what was experienced in the state-socialist regime, they subject their resources to strengthening the neoliberal economy. It is hard for people to find way to co-operation. They rather build the informal economy and choose solutions already identified in the peripheries. The development of SSE, apart from the lack of trust, is hindered by the strong phobia against cooperatives and the disappointedness in the notion of solidarity discredited in the state-socialism. (Poland, for example, is an exception where there was no aggressive cooperativisation and could retain more of its community values.)

In the peripheries: the basic elements of public services are underdeveloped. What exists is not freely accessible. There are fundamental shortcomings in healthcare, education and public utilities. Besides, the workforce absorption capacity of the formal economy is infinitesimal comparing to the labour supply. The informal economy is wide and, because of the weakness of the state and private sphere, there is no great hope for the upsurge of the formal economy. The number and proportion of those living under the poverty threshold is high, and fundamental catering problems emerge. Self-supporting actions are inevitable.

SSE moves forward predominantly in the healthcare sector, schooling, and agricultural and handicrafts cooperative movements promoting integration into the economy (cooperation in irrigation, seed-banks, community kitchens, loaning and sales). A great number of organisations exist that do not limit themselves to one area, they rather make effort together to fulfilling the most

typical needs of people. The attitudes of governments to the problems are different. In some cases they support SSEs to get stronger by accepting the offers of the world-organisation, while in other cases, the national independence go hand in hand with SSE. There are cases in which SSE is withheld or persecuted in the fear of political conflicts or acknowledging their incapacity (Fonteneau – Develtere 2009).

The inner peripheries of semi-peripheries display similarities with centres.

Table 2
Review of the objectives of SSE stemming from global challenges from a centre-periphery perspective

Global challenge	Centre	Periphery
Unemployment	Mitigating structural unemployment – labour-market reintegration, supporting business start-ups. Compensating the shrinking role of state, labour-market services. Helping employability of women, young people, pensioners and disabled. Exploring new economic areas in the formal economy	Expanding the narrow employment potential– general labour market integration, expanding self-employment Presence of non-profit sector in the traditional economic areas Exploring new economic areas Alternative of informal economy
Catering	Guaranteeing healthiness, curbing over-consumption	Ensuring quantity and nutrient content
Housing, urbanisation problems	Environmentally friendly habitations, renewing urban housing estates, solving residential problems of the homeless. Outflow from cities, suburbanisation and re-ruralisation	Providing healthy habitations in large number, eliminating slums, building public utility Flow into city, rural areas get empty, large cities get overcrowded
Environment protection	Reducing the effects of former large emissions, re-cycling, reducing ecological footprint	Prevention, preparation, thrift, inhibiting the subtraction of resources
Shortage of energy	Utilising alternative resources, thrift	Restricting the extraction of energy sources, provident utilisation of income, thrift

Diseases, epidemics	Expansion of health insurance, special services	Developing healthcare services, epidemic protection
Migration	Receiving immigrant, integrating them	Mitigating emigration
Info-communication	Adding special target groups, providing community access, expanding usage opportunities	Expanding IT penetration, general development of abilities
Uniforming of cultures, breakdown of communities	Special trainings, reviving traditions, community development	Schooling, preserving traditions, building networks, strengthening communities

Source: own compilation

The discrepancies of SSE can be identified partly along the global demarcations of the centre-periphery relation, on the basis of the different needs stem from them. The global system of centre-periphery relations also show the differences found at the different stages of social change. Supposing that the course of civilization and the basic features of the social development periods are largely similar in the various parts of Earth, SSE appears differently in the traditional, the modern and the post-modern societies. It entails fundamental differences not only in the objectives but also in the social and economic fit of SSE.

In a small proportion of traditional societies found in the periphery richness being embedded in the society and also reciprocity are natural. Although to smaller extent, but substantive economies featuring the heritage of *archaic societies* still exist. In their case satisfying needs is an objective of the economy, it is not an individual sub-system. Work is not a means to an end, it is rather a natural way of life. Producer is a consumer. The community takes responsibility for the individual. (Polányi, 1976)

In modern societies, which are dominant in all three global sectors, profit-gaining, the inhumanity of technology in service of global growth by all means, increasing individualism, and giving individual goals priority as opposed to community goals call the first forms of SSE to life. The SSE sector of modern societies are characterised by denying profit-maximising by all means, taking people's needs into consideration in the course of work and distribution, putting human implications forward within the economy, devoting profit to community aims and utilising the opportunities residing in cooperation for community

goals. In new imperialism (Harvey 2003) however, SSE either remains an isolated part of the economy or it integrates into the mainstream economy giving up its basic principles.

Environmental views and the resulting conscious consumption, local products based on local resources, networks providing access to information, learning as a process, the rising value of recreation, the importance of social participation call new SSE institutions and activities into being in the strengthening *post-modern social structures* in centre regions. Although the new SSE elements are strongly reminiscent of the structures typical in the substantive economies, they diametrically differ from them. The differences appear in their explicit structure; the quality, diversity, needs and motivations of workforce; the composition of needs; resources; as well as the institutional, infrastructural and economic background. The SSE of modern and post-modern societies, however, differs in terms of environmental awareness and social participation.

Table 3
Comparison of the peculiarities of substantive economy and formal economy

	Substantive economy	*Formal economy*
Objective of the economy	Satisfying needs Economy is not an objective for itself	Growth of the economy
Work motivation	Diversity of motives, incentives and goals	Only profit and growth
Work function	Work is a natural way of existence	Work is a tool and goal
Nature of work	Priority of the social content of work	Priority of the economic content of work
Independence of economy	Economic activity is not independent, it is intertwined with social relations	Economic activity is an independent sub-system
Development of producer-consumer roles	Producer is also a consumer	Producer and consumer are not the same
Appearance of profit orientedness	Sense of fairness is typical	Profit oriented thinking is typical
Value systems	Community interest is given priority	Individual interest is given priority
Degree of solidarity	Community's taking responsibility for the individual	Increasing individualism

Edited by Judit Csoba on the basis of Polányi 1976 (Csoba 2007. pp. 16.)

4. GEOGRAPHICALLY LOCAL CONDITIONS

We come across the diversity of SSE within the large geographical systems as well. SSE, as the terrain of the implementation of local answers given to global problems, is determined by the local-economic-environmental space. The local system of conditions can be interpreted in the triumvirate of labour, local needs and civil society/communities.

In local societies accommodating (or rather establishing) SSE, it is mainly the spatially changing culture (values, norms and rules), and, accordingly, the informal economy, the degree of development of civil society, social acceptance and social capital, as well as the nature and strength of democracy may change by territory.

At the same time, SSE exerts effects back on the environment. Not only because the targeted economic activity is often directly aimed at changing the physical environment, but also because the human and social resources, changing following SSE, change the whole economic environment.

The differences of places lead to the development of different activity areas, methods, and institutional structures. In this respect, the discrepancies stemming from the differences of urban and rural spaces may be interesting. The general differences the urban and rural categories – beyond the regional centre-periphery relations – can be analysed along (1) size / scale / concentration, (2) closeness to nature, closeness to people / community / traditions and (3) differences in culture / lifestyle existing because of the above (Tonnies 1887-2002).

In rural space SSE inevitably requires regional co-operation. This is the way how the size and concentration ensuring the viability of the economic side can be created. The relative strength of traditional communities is helpful to the social side in rural environment; however the closeness of local networks, the smaller weight of civil organisations and the mistrust in new things can be a hampering factor.

In urban space, the high diversity of labour force, the uncovered needs of marketable size, the level of development of civil organisations, the openness of networks and the skill to adopt new things are helpful to the economic side of SSE. Here such factors hampering inter-sectoral co-operation may cause difficulty as mistrust, sharper differences in interests and the isolation of people. Intra-urban closed communities show similarities to those mentioned relating to the rural space.

Table 4
Conditions of SSE in urban and rural spaces

Conditions	Urban spaces	Rural spaces
Labour	Larger concentration, wider professional structure	Smaller concentration, narrower professional structure, commuting – need for transportation
Needs	Differentiated needs, above the threshold of the economies of scale	More homogeneous needs, below the threshold of the economies of scale
Resources	Agglomeration effect, diversity, R&D centres, network density, innovations, information flow	Closeness to nature, closeness to people, traditions, informational isolation
Communities	Along interests, in large density, wide range of partners, network relationships open towards outside, mistrust against the existing	Traditional communities (family, church, school, staff members), limited number of partners, closed networks, mistrust against new
Democracy	More experience in practising democratic rules, rebellious behaviour, multiple interests, more mature structures, well-established	Respecting authority and customs, determining role of leaders, less experience, simpler structures, narrow channels of interest representation

Source: own compilation

The validity of the introduced urban-rural differences are also shaped by the locally typical social formation. The above approach is mostly appropriate in a specific stage of modern societies. Researchers are theorising that there is no longer reason for the town-village division in late modern societies. E.g., based on an English example, Scott et. al. refuse the town-village division (Scott et al 2007). Others however – although indicate the penetration of urban space into rural space – argue for preserving the differences of the two forms of settlement, allowing for discrepant lifestyles, in post-modern societies (Woods 2005).

5.   CONCLUSION – STATEMENTS FOR DISCUSSION

a. The mission of SSE coincides (making local initiatives work in order to mitigate the detrimental effects of globalisation) with overall objectives and basic principles (solidarity, fighting poverty, sustainable development). Beyond this, however, we cannot talk about a single SSE. Its reason is the distinct goal and institutional system stemming from the distinct needs and resources based on the distinct situation of global grand-regions within globalisation. All these prognosticate the long-term diversity of the SSE sector in spite of the strengthening interactions

b. The strengthening of SSE is hampered by the apparent conflicting interest of the three world-parts and the weakness of global solidarity in the rest of the two sectors of the multi-sector economy. The global harmonisation of local SSE initiatives may promote placing solidarity, being a basic value of the sector, at global level and thus transforming the global economy in accordance with social and environmental objectives.

c. The difference between the urban and rural space can be demonstrated along the triumvirate of labour – needs / resources – communities; the urban-rural division is not an obsolete concept yet in the major part of the world. The diversity of the local initiatives of SSE is growing according to this aspect as well. The co-operation between the urban and rural SSE hides potential for both forms.

d. The effects of the distinct peculiarities of the traditional-modern-postmodern social forms on the SSE sector emerge both in the global centre-periphery and the urban-rural analyses. The mix of features characteristic of the three social forms determines the development and operation of SSE in a given space. Mostly these features define the various SSE types.

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IMPACT OF ENERGY SOURCES AND TECHNOLOGIES ON DISTRICT HEATING PRICES

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The focus of the World's attention turns more and more towards energy-management and energy-policy nowadays, due to the ever increasing primary-energy needs and the scarcity of available resources. The question of energy demand generates challenging problems to be resolved with respect to policy-, economics- and social aspects. District heating can contribute to reaching the goals set by energy-policy and to fulfilling the obligations set by the European Union in the field of environment due to the opportunities of saving primary energy sources offered by it.

Due to the energy concept for forming the district heating systems which was not properly thought over, domestic (Hungarian) district heating systems are determined in an unfavourable way in terms of energy management. The shift to a less beneficial direction in the structure of primary energy sources makes district heating expensive. The advantage of district heating being able to generate heat by using any types of energy sources and transferring it to the consumers can not be utilised in Hungary today.

This study evaluates the impact of technologies and energy sources used in district heat generation on the prices of the service. When making the analysis I supposed that the technology applied, the prices of primary energy sources and their availability are decisive in terms of the competitiveness of those branches of industry which use large volumes of energy, including district heat generation. The energy sources constitutes to a large fragment of costs in case of district heat generation. The opportunity of the chosen technique to combined heat- and power generation is an important factor of price assessment.

1. RESEARCH METHODS

Besides mapping the relevant literature I pursued primary research. The following data bases stood at my disposal for conducting my research:

− The data bases of the Hungarian Energy Office and the Trade Association of Hungarian District Heat Suppliers, which consist mostly of technological and natural unit based data. Besides the technological information, the Financial Reports of the years 2007-2008 and the consumer prices between 2001 and 2008 stood at my disposal.

− I have also conducted a questionnaire-based survey in terms of district heating suppliers because I needed information on the management for achieving the aim of my research.

The attributes of questionnaire-based survey conducted

I have conducted a questionnaire-based survey of Hungarian district heating suppliers in order to analyse the factors influencing the price of the service. District heat supply is available in 92 settlements of Hungary. 85 district heating suppliers got the questionnaire covering 99 percent of the flats having district heating. Some questions of the survey concerned the technological and management (mostly cost) data of firms while others aimed to map the management's opinion. For the latter the application of Likert-scale seemed to be the best.

The questionnaire was sent out in January, 2009. The requested data applied to the last enclosed year, 2007. The questionnaire was returned by 27 companies. This gives a 31.76 percent return rate. The number of flats supplied by the answering firms is 418 016 (650170 flats in 2007[1]) which takes 64.3 percent of all flats supplied with district heating. The analysis of direct cost structure could have been carried out properly only in case of 15 companies due to the deficiencies of the district heating suppliers' registration systems. This means 17.65 percent of the surveyed district heating suppliers. It also means 55.1 percent coverage of the flats supplied with district heating.

I have done the analysis by using *simple descriptive statistical methods* (*frequency distribution, average, deviation, minimum - maximum values, median) and multivariable statistical methods (correlation analysis, regression analysis, cluster analysis and factor analysis)*. In the course of the analysis I considered the significance level of 5 percent as relevant. I used SPSS 16.0 statistical software and Microsoft Excel for processing and analysing the data.

2. THE IMPACT OF THE TECHNOLOGY APPLIED IN OWN CAPACITIES ON THE PRICE OF DISTRICT HEATING

The generation of heat can happen by the use of numerous different technologies. According to the definition of the law XVIII/2005: „*district heat production capacity:* is the heat production utility of the power plant used for the production of supplied district heating, heating plant, heat-only boiler station, boilers (furnaces), cogeneration plant, waste incineration plants, geo-thermal plants, plants utilising other renewable energy resources or waste heat

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[1] According to the Hungarian Energy Office

from industry. (e.g. bioboiler, (geothermal) heat pump, solar-collector)".(Law XVIII/2005, 3. §) For the detailed description of the distinct technologies see Fábián in MaTáSzSz 2003, pp. 48-49.

Modern technologies have been appearing in the fields of heat generation in the last two decades, mostly due to the spread of combined heat- and power generation (cogeneration), besides the dominantly used furnace technology. The construction of combined cycle power plants and gas engines became widespread at the newly built heat generators. The applied technology determines numerous quantity and quality parameters of the district heating supplement both on the input and on the output sides; therefore it influences the price of heat generation.

14 of the companies, involved in combined heat- and power generation answering the survey reported the exclusive use of furnace, 7 of them also owned gas engines, while one firm uses only gas engines for heat production. Beside furnace as other technology sun collectors, steam power plants and thermal technology were mentioned (the share of the latter counted for more than 43 percent of the entire heat production in case of one company). The weight of furnace technology is above 70 percent in case of approximately 80 percent of the companies which are involved in own capacity combined heat- and power generation answering the questionnaire, so it can be regarded as dominant. In case of three companies its share is 50 percent or less. (I considered gas motors operated by a third party in the territory of the own plant as the bought heat.)[2]

The applied technology cannot be analysed irrespectively of the used energy sources and the technology being combined- or not combined heat- and power generation, so the differences of the district heating suppliers' prices can be explained by the diversity of the applied technology only to a limited extent.

In case of those companies which applied a technology allowing for combined heat- and power generation, the benefits of cogeneration can clearly be shown[3]. The own capacity combined heat- and power generation was shown to be in significant negative relationship with the rates, the GJ-based specific price and also with the specific direct cost. This means that those district heating

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[2] It is also true for all district heating suppliers (according to data of 2008) that those district heating supplier companies which are involved in own capacity heat generation mainly solely or dominantly use furnace for heat generation. In addition to this, most companies involved in own capacity based combined heat- and power generation, operate their own gas-engines besides furnace. Besides furnace other technologies applied are combined cycled gas and steam turbine, condensation gas turbines, sun collectors, steam power-plants and also a technology that uses thermal energy in a small compass.

[3] 27 companies, approximately 32 percent answering rate, 64.3 percent coverage relative to the number of flats being supplied by district heating

suppliers which pursue own capacity based combined heat- and power generation had lower specific direct cost and rates. As a 2008 survey covering all the district heating suppliers also confirmed, those district heating suppliers which are involved in combined heat- and power generation in any form have slightly lower GJ-based specific prices on average. The specific price of district heating is the lowest in the group the members of which pursue exclusively own capacity based combined heat- and power generation. This context seems to justify the hypothesis that the presence of combined heat- and power generation in district heating supply has a favourable impact on the prices of district heating. This is especially true if the benefits arising from cogeneration are realised by the district heat supplier.

3. ENERGY SOURCE STRUCTURE OF DISTRICT HEATING

Mainly natural gas is used as energy source for generating heat in Hungary. According to the data of the Hungarian Energy Office the structure of energy sources used for heat generation has been transforming through the years. The use of natural gas had been dominant even at the changing of the regime (58.9 percent), and the rate of this amounted to 82.8 percent by 2005. In 2007 the rate of natural gas decreased somewhat though compared to 2005, but it still represented a significant 78.27 percent share among the used energy sources. Table 1 introduces the structure of energy sources used in district heating in the EU and in Hungary.

Table 1
The energy base of district heating – energy sources' distribution percent

	Coal	Natural gas	Oil	Renewable	Waste	Other
EU 2005[4]	40	34	5	10	3	8
Hungary 2005	9,2	82,8	1,4	6,6		
Hungary 2007[5]	10,8	78,3	0,5	10,4[6]		

Source: District Heating and Cooling Country by Country/2007 Survey

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[4] The share of energy sources used for heat generation in Europe (the weighted average of all countries featured in the survey).
[5] Resource: data of Hungarian Energy Office
[6] 10.4 percent is distributed among the different sources of energy according the following rates: biomass 1.3, furnace gas 4.7, thermal water 0.5 and other energy source 3.9 percent.

The following consequences can be drawn by analysing the Hungarian district heating supplier companies' fuel structure. According to the Hungarian Energy Office's data of 2007, 64 district heating supplier companies of those which operate on Hungary's 92 settlements being connected to district heating, generate (or purchase) heat based solely on natural gas. The share of natural gas as a primary source of energy is above 92 percent (in case of their majority even above 96 percent) in case of another 10 companies. 82.4 percent of flats that are supplied with district heating are covered by these two groups. In case of 19 settlements the share of natural gas was lower than 90 percent. The number of those district heating supplier companies which use gas in a lower share than 50 percent is small (10 companies). For example in Körmend and Tata we find bio-mass, in Dunaújváros furnace-gas based heat generation, and in Csongrád and in Szentes thermal water is dominantly applied. 5 settlements do not use natural gas as a source of energy at all. District heating supply is coal-based in Ajka, Oroszlány and in Visonta. In Paks waste heat of the atom reactor while in Tiszavasvári heating oil is used.

The survey also confirmed this rate; the majority of the answering companies use solely or dominantly natural gas. The share of natural gas used in district heating is outstandingly high. This indicates that the price of this source of energy is one of the most decisive factors influencing the price of district heating supply.

4.   THE REASONS BEHIND THE SHIFT IN THE ENERGY SOURCE STRUCTURE

District heating supply had been based on the waste heat of different branches of industry, such as mining, metallurgy, chemical industry. Later mining and metallurgy got ruined and search for new heat sources started. When creating the technologies the most important objective was to supply the service with the lowest investment, and this is why the solely primary energy source-based heat generators became widespread. The use of natural gas as fuel had been spread more and more widely because of its fire technological advantage. Russian natural gas being given to the country for a remarkably low price and in unrestricted quantity before the changing of the Regime also contributed the escalation of this process. In addition to this, the prices of natural gas had been kept at an artificially low level due to social reasons by domestic policy.

5.   NATURAL GAS AS RAW MATERIAL

High world market-prices are more and more dominant in Hungary as well as a result of the persistent and drastic growing tendency of the natural gas's

world market-price, the changing of curb market formula of natural gas price, and also the gradual alteration of the domestic natural gas-policy. District heating suppliers are also stricken by the distortions of the domestic gas price-system. (for more detailed discussion on the situation and tendencies of natural gas market among others see *Hegedűs* 2005, *Horváth J.* 2008, *Magyari* 2007, *Major* 2007, *Szilágyi* 2008/a, Eurostat's statistical publication of the energy-market, related sections of the publication series by *GKI Energiakutató* Energiapolitikai Füzetek, *Scheiring-Boda* 2008, and the legal background regulating the natural gas-market)

Based on these it has become obvious by this time that one of the most expensive energy sources is natural gas and those district heating supplies that are running merely or dominantly on a natural gas basis can generate or purchase heat for an exceedingly high price.

District heating suppliers purchased natural gas energy source for very different prices in the year of 2007. I have analysed the expected advantages of natural gas-market's deregulation and their restrained realization based on literature resources, along with the empirical analysis of the deregulation. Potentials provided by the deregulated market were seen as favourable compared to public supply procurement, by district heat suppliers, at the same time obtainable advantages decreased from 2007 to 2008. Entering the deregulated (curb) markets is not unambiguously favourable for the companies, as a consequence of giving up public service pricing and the large scale spread of import natural gas price based indexed pricing mechanisms at the same time. The differences in purchase prices imply diverging bargain positions of individual companies. This is also confirmed by the fact that even companies contracted with the same gas trader report different contractual conditions.

6. DIRECT COST STRUCTURE OF DISTRICT HEATING

Correlation analysis between the used fuel's procurement price and the price of district heating has shown that the average fuel unit price (which is the weighted total of the unit price of natural gas and other fuel) shows positive medium strong correlation with the price of heating, the GJ-based specific price of district heating and the annual district heating cost of an average flat[7].

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[7] (Pearson Corr. 0.508; sig. 0.001); (Pearson Corr. 0.412; sig. 0.006); (Pearson Corr. 0.412; sig. 0.006) applying to district heating suppliers altogether (according to data of 2008). The survey on the basis of 27 companies' data of 2007 has also shown similar coherences.

The survey regarding the structure of district heating's direct cost price[8] has also affirmed the cost- and hereby price formative function of natural gas energy source. Looking at its degree and its tendency, the heat generation's direct cost has been determined in the highest degree by the natural gas cost needed for generating one GJ heat quantum. This tendency is demonstrated by Table 1.

Table 2

The direct cost structure of heat generation in 2007
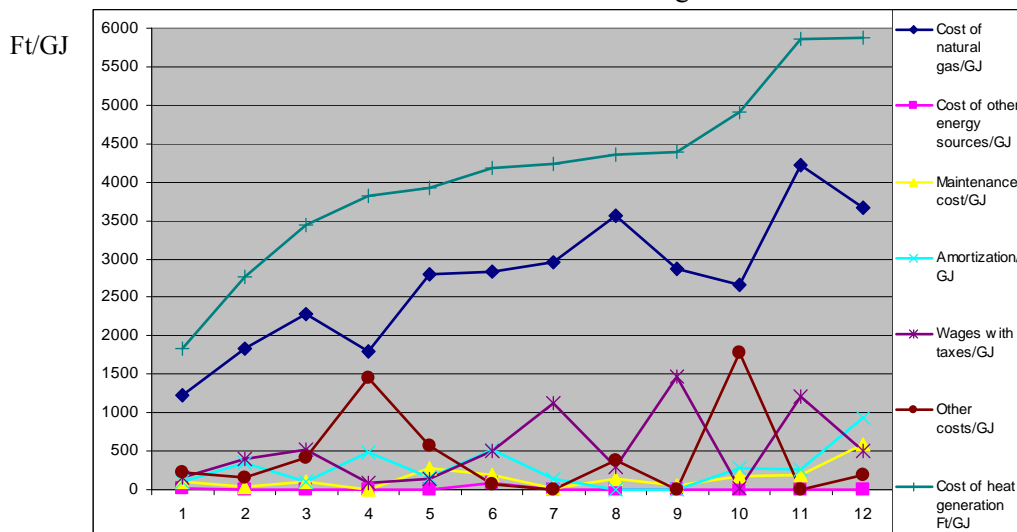
The registration number of companies participating in the survey

Source: own construction

Positive strong correlation[9] has been shown between the heat generation's direct cost price and the natural gas cost needed for generating one GJ heat by correlation analysis between certain components of the heat generation's direct cost structure and the heat generation's direct cost price.

According to the single elements of cost's percentile distribution (pursuant to aggregated average), natural gas cost runs to the biggest share, covering on the average 69 percent of the heat generation's direct cost structure. Positive

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[8] Data were available only for 2007 and for a narrower sphere of district heating suppliers (but the analysis still covers 53.3 percent of flats supplied with district heating).

[9] (Pearson corr: 0.897, sig.: 0.000)

correlation has been shown between the heat generation's specific direct cost, heat price and the specific GJ-based price of district heating.

7.   ALTERNATIVE ENERGY SOURCES IN DISTRICT HEATING

The remarkable dominance of natural gas-based heat generation and the disadvantages arising from it have brought on the analysis of alternative energy sources' possible uses in district heating. I have been analysing the impact of alternative energy sources on heat generation cost and charges.

The use of alternative energy sources takes favourable effect on the cost of heat generation and hereby on the price of district heating. Heat generation's direct cost was lower than average in case of those companies which use other energy source beside natural gas.[10] The service of those district heating suppliers which apply alternative energy sources is usually cheaper.

I have tried to approach the problem from a different perspective considering that this statement does not rest on significant coherence. I have analysed the annual average district heating cost that is typical of the settlements according to the Hungarian Energy Office's holistic   database of 2008. I have illustrated the data by the help of *Box-plot diagram* which marked five outstanding rates. All but one of the five companies which have salient annual district heating cost marked out from the other suppliers with the fact that their annual district heating cost are substantially lower. The four companies which have salient low annual district heating cost differed in numerous parameters; however, one very important similarity was obtrusive. The share of natural gas's use was infinitesimal in all four settlements. Thermal water is used in 86 percent in Csongrád, in 98 percent in Szentes, and geothermal energy is used in 100 percent in Szarvas for generating heat. The GJ-based unit price of geothermal energy is substantially lower than that of the natural gas. There is not any own capacity-based production in Paks; however, the district heating supplier obtains bought heat on an exceptionally favourable price (on 764 Ft/GJ unit price). Most likely this causes the fact that the mentioned companies can work on much lower fares, and the specific price of district heating is also much lower in their case.

In connection with alternative energy sources, beside the advantages I have also analysed the emerging disadvantages and the limits of their spread. Empirical data did not stand at my disposal so I have summarised my relating observations based on the literature. (The related literature resources among others are: *Horn* 2004, *Bencze* 2005, *Kontra* 2008, *Szilágyi* 2008/b, *Haslauer-*

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[10] Covering 53.3 percent of flats applied with/having district heating   (according to data of 12 companies).

Hörmann 2009, related issues of *GKI Energiakutató* Energiapolitikai Füzetek kapcsolódó and the issues of *Euroheat &Power*).

A German consultant's study analyses the negative effects of the 2008 recession on energy politics. Haslauer and Hörmann (2009) emphasize the questions of energetic investments' financing. Because of the specific cost structure of the investments which are based on renewing energy sources (starting investment cost are substantially higher, running costs are substantially lower than in case of the conventional energy sources) , these investments need very high investment, and credit plays an important role in financing them. The credit's interest cost has been rising significantly through recession, and the aspects of credit consideration, together with the conditions of obtaining credit has been getting harder, hereby the popularity of renewing-energy based power-plant investments has been decreasing. That is why further operation of power-plants depreciated before remains a realistic alternative. The cancelled power-plant investments preserve the old, less efficient technologies, and leads to the ageing of the power-plant park (Haslauer-Hörmann 2009).

Other resources direct aim the attention to the same difficulties in connection with renewing energies as well.[11] High investment cost can constrain district heating companies. This is why the change of extant, functioning technologies for technologies which are adapted for burning new, renewing energy sources can not be expected in multitudinous quantities. Seeing that most conventional heat generating devices has already been depreciated, their return does not have to be validated in the prices. It is expedient to consider and to favour up-to-date technologies which result in primary energy-saving. Szilágyi deals with the question of energy sources which could replace natural gas and their prospects in the Hungarian market in his study (2008/b). In the end he drew the following conclusion: "In Hungary substitution of carbon hydrogen with other energy source can only change in small quantity compared to the present situation. (…) in the next 10-15 years natural gas will be the future's energy source. Nobody needs to be convinced about the versatile, convenient, highly effective use of it. Unfortunately, its price has to be paid." (Szilágyi 2008/b)

It is also true in the case of district heating supply that the shift from natural gas-based heat generating systems for other energy source can only be imagined over the long run. The switch of technologies would involve remarkable investment, the return requirement of which would also infiltrate in the prices. The attainable prices on the natural gas market are more favourable in the case of bigger quantity, and reception of the engrossed quantity of natural gas in the formerly concluded long term contract lays a charge on the district heating supplier.

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[11] Bencze 2005

8. SUMMARY

The fact that 81 percent of district heating supplier companies (covering 82 percent of the supplied flats) generate heat solely or dominantly (over 90 percent) by using one of the most expensive energy sources, tnatural gas, or they buy heat generated on natural gas base (according to data of 2007) plays a decisive role in the high price of Hungarian district heating. Competition in the natural gas sector which was expected from the conversion of the structure, materialized only to a limited extent. Vertically integrated transnational actors have emerged. The market dominancy of these is ordinary today. The interest vindication ability of district heating sector is slight in this situation.

Due to the not adequately overthought economics- and energy policy conception, prevailing (mainly natural gas based) technologies in heat generation determine the structure of energy sources used in district heating for a longer period. The use of alternative energy sources has a positive effect on the cost of heat generation and on the price of district heating; however, their quick inland spread can not be prognosticated. Their gradual spread can be expected through the depreciation of conventional technologies and their modernizing change.

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QUALITY OF ACCOUNTING SOFTWARES

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Raising the need for quick and efficient data processing and transmission, accounting information systems have an ever increasing role in detecting, recording and transmission of information. Mapping of economic events in a globalized world is nearly impossible without adequate IT support. Accounting software efficiently ensure that properly transformed information are delivered to users.

Businesses, depending on size and expertise, employ a specific person or department for accounting tasks (internal accounting) or outsource it to an independent person or agency (external accounting). In order to ensure that decisions are properly established and all the necessary information are available, data flow is of key importance and determines responsiveness of a company, no matter if accounting is made internally or outsourced.

Today, as an effect of the financial crisis, the need for „true and valid" data has become more important than ever. The quality and feedback of data depend, among others, the integrity of available databases, and the flexibility and professionalism of accounting persons and teams.

Many recognized scientists have already developed quality models for software quality, however in the case of accounting programs there are some user expectations that stretch beyond general modelling criteria.

This area of accounting science is an unmapped part, which, when properly analysed and modelled, may improve effectiveness, integration and comparability of accounting processes.

With view to all the above aspects, I think it is important to map the IT support behind accounting and to define and model quality criteria against accounting software in order to fully meet user needs.

Accounting processes, events and evaluations as well as accounting information systems are researched and assessed by many researchers[1], however, the development and spread of information technology added a new dimension to the science of accounting. This area has been mapped and questions have been answered by relatively few so far; most studies focus on problems from information technology aspects.

The main goal of my science-based research is to introduce the world of accounting software by detailed description and mapping of the topic as well as drawing conclusions from research results. In addition to this, I also attempt to answer questions that emerge during day-to-day operations of accounting, and

may be answered by others, however there has been very few facts-based publications on this, or the majority of studies have proven the propositions from other than accounting viewpoint.

I will outline the properties, operations and basic features of accounting information systems used by companies. My research covers the study of accounting information that support management decisions, the use thereof and feedback to relevant organizations and persons, as well.

As a part of the research I also studied the level of structuredness and integration of applied accounting software in order to have a better understanding of the structure of IT applications that support accounting process.

Basically, software products can be classified into three main categories:

- all-in-one accounting programs,
- modular accounting software, and
- Enterprise Resource Planning tools (ERP).

Micro enterprises (defined as per the law) generally outsource accounting tasks to external persons or offices so that they can save money especially due to the contributions on wages and salaries.

This trend is well visible in the given sample, as 74% of the enterprises having annual net turnover lower than 580 million HUF outsource the accounting tasks to an external supplier.

In addition to cost reduction, outsourcing is often supported by other (non-visible) reasons. The interview survey I made among selected experts has revealed that many enterprises simply cannot keep accounting tasks within the company due to the lack of qualified and experienced accounting staff. In addition to this, owners and managers strategically try to shift the responsibility of mandatory data supply on to external service providers.

881 enterprises out of the 1437 businesses that use external accounting (i.e. 61% of respondents) highlighted the lack of qualified staff. Cost saving (as the generally recognized „key reason") was mentioned only after the lack of expertise and the shifting of responsibility, because this is primarily important for smaller enterprises only.

Further use of the available accounting information is subject to certain conditions (company size, performance of accounting tasks), as outlined above.

In the case of studied enterprises where accounting tasks were performed by an internal accounting department, different needs emerged against the selected and applied accounting software.

The survey led me to the conclusion that in the case of internal accounting, businesses need simple and intuitive user interface, quick updates to keep track of the changes in laws and user needs, as well as regular accounting mechanism in order to fully meet legal requirements.

In the case of external accounting, where accounting offices prevail, the same trend is observed, but needs are a bit shifted towards the importance of data export.

In the case of external accounting, the need for data export is in close relation to the continuous data supply to customers, since this function makes data much easier to transfer and illustrate and, in turn, provides true and valid mirror of the business every month or quarter.

The need for further use of data (indicated as „other" category on figures) is measurable in the case of internal accounting only, because when accounting is outsourced, businesses, mainly due to the lack of expertise, do not need data to be fed back.

Considering the distribution of categories in the entire sample, modular software products prevail, due to the following two reasons:

- first, the market is currently overwhelmed with modular solutions,
- second, the non-flexibility and slow adaptability of all-in-one software, and the relatively high price and mistrust against ERP solutions make modular programs a popular choice.
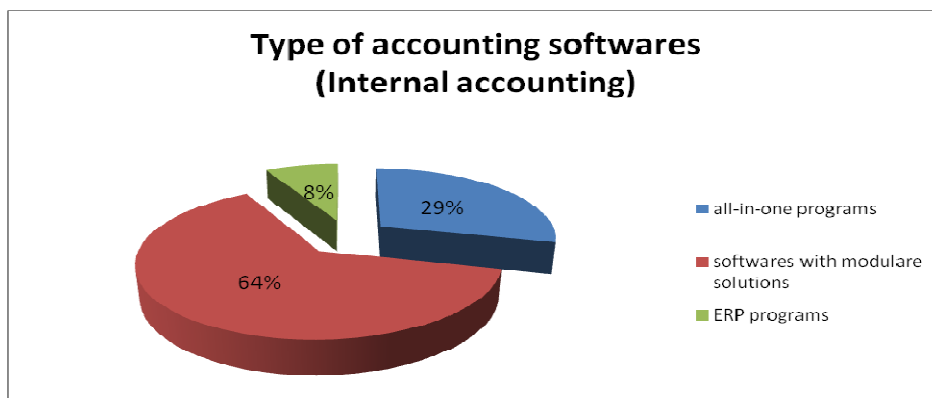

Figure 1
Type of accounting softwares

Source: own compilation

The majority of businesses, which perform data processing within the company typically apply modular software tools: 1480 out of 2345 respondents mentioned the use of modular programs. Interesting to note that there are some (exactly 322) enterprises that has ERP system but do not use accounting module

thereof; instead, they purchased an independent accounting program to perform accounting tasks, and output data are manually imported into the database of ERP system. In this case, 92% of the companies use a modular program for data recording and accounting.

The 639 in-depth interviews I made with businesses that use ERP system revealed that the use of integrated ERP system is often complicated, because the knowledge of their staff about the operation and handling of the system is not good enough to make sure that transactions are properly recorded.

6% of the respondents (39 persons) confessed that the applied software is virtually unsuitable to record and manage business events, however for some reason (financial aspects or management decisions) they will not (or cannot) change to a different system.

When designing the quality model of accounting software, one must set out from the user demands. Every user has its own view about important functions, everyone wants to obtain different information from the system, but there are some common expectations that are worth highlighting.

In the course of the research I reviewed some of the most recognized and established international software quality models, drew up questions (and selected some quality criteria from previous questionnaires, as well) and assessed the answers given to these questions.

I performed some in-depth interviews with professionals in order to find quality criteria against accounting software. Respondents were offered to rate features between 1 and 5, so the maximum score of 636 surveys was 3180. The results have shown that portability and international background is of minor importance; users deem conformance to laws, changeability or flexibility much more important.
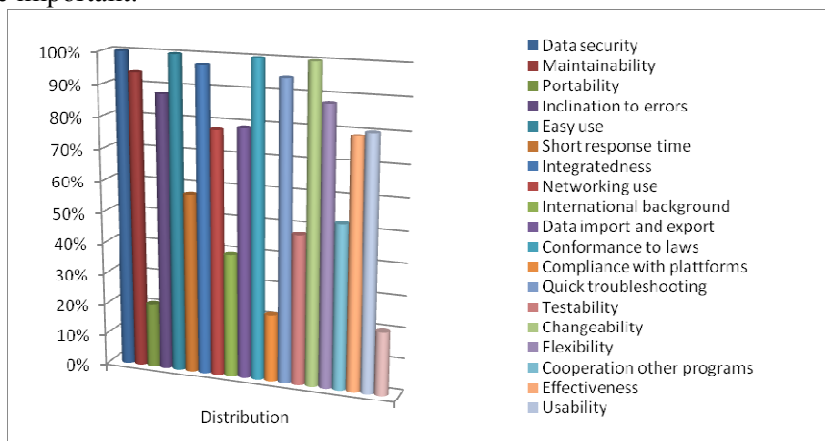
Source: own compilation

Figure 2
Distribution of accounting softwares quality

Features that achieved at least 60% can basically be categorized into the following four groups:

- reliability,
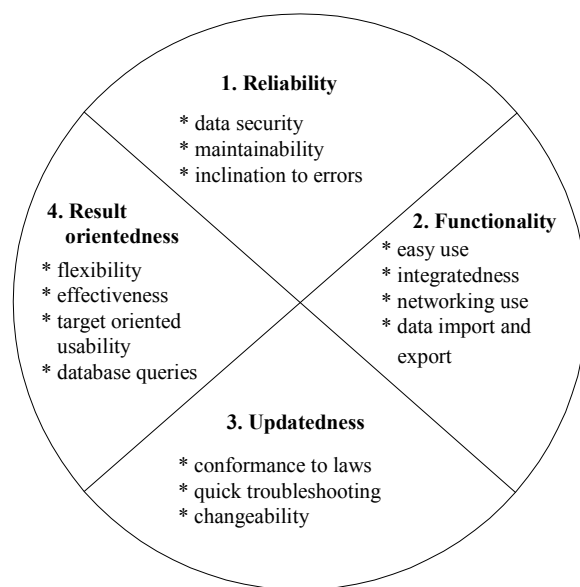- functionality,
- updatedness,
- result orientedness.

Figure 3
Quality model of accounting software

Source: own compilation

1. RELIABILITY

Reliability is a very important trait of accounting software, as the recording, processing and transmission of accounting information can contribute to the enhancement of competitiveness by means of an effective system only.

I listed the following aspects into this pillar:

- data security,
- maintainability,
- inclination to errors.

Data security means that the recorded business events are properly protected. Records must fully meet legal requirements against accounting, and

the program should control access and authorization so that unauthorized access is fully avoided.

Maintainability refers to the monitoring and verification of the software and the effective and professional repair of any possible errors.

The inclination to errors is in close relation to the previous feature; this can be measured by tests so that it can be minimized during program development.

2. FUNCTIONALITY

Functionality refers to features that can be closely related to the use of accounting software. This includes:

- easy handling,
- integratedness,
- use in network, and
- data import and export possibilities.

As with all computer programs, easy handling and quick accessibility of functions is a vital user requirement against accounting software. The more complicated a system is, the more difficult to access different output information, the less popular and successful will the IT application be.

Integrity, integratedness: layered but individually usable modular programs have become so functional that is absolute necessary for integrity. The goal of software developers is to resolve the widest range of problems and to create so complex programs that are capable of recording, storing and converting information that user may (or at the first time may not) need.

Networking is in close relation to the integratedness: remote and online accessibility of the database ensures that accounting data or statements are accessible even from out of office. The network makes distribution of work processes and management of given functions (like bank, petty cash, incoming or outgoing invoices) possible, so posterior verifications and error finding become much easier.

Accounting software users pay increasing attention to different data export and import operations that make accounting process simpler and data supply faster. In the event the given business has external accounting, a properly parametrizable data exchange delivers benefits in contact with managers and decision makers so that all parties are satisfied.

3. UPDATEDNESS

In the case of accounting software, updatedness is a key quality expectation, because programs must be able to handle the changes of legal

environment. If an accounting system is not up to date, it may have severe consequences.

This category includes the following features:

- conformance to laws,
- quick problem solution, and
- changeability.

As regards conformance to laws, all users require that the selected software should fully meet the current regulations. It is vital that changes are made prior to the date of effectiveness, since in this case proper time can be allotted to testing.

The quick troubleshooting is not a novel user need, as the repair of errors that may emerge in the course of successive business mechanisms is vital for users. This demand drove the establishment of online helpdesk services that provide swift and effective help 24 hours a day.

Changeability is an integral part of the first two features and refers to the changeability of submodules and program parts.

4. RESULT ORIENTEDNESS

The aspect of result orientedness relates to the central role of output information generated during accounting data process. It includes the following features:

- flexibility,
- effectiveness,
- target oriented usability and
- database queries.

Flexibility refers to the generation and versatile use of information, because, as I have already discussed at the analysis of accounting information system, though the information generated by the accounting is primarily used for the support of financial statement, these information also contribute to the planning, controlling and decision-making processes (this is called managerial accounting).

Effectiveness is the metric of time consumption, including the time and speed of processing, generation and transmission of information elements.

Target oriented use and database queries are closely related features, which enable the customization of information generated by accounting software, providing vital support to areas and subsystems that use accounting information as input.

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CHANGING SPATIAL ECONOMIC STRUCUTURE IN EAST CENTRAL EUROPE

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1. ABSTRACT

The economic development of East Central Europe within the last one and a half century can be simply divided into different sessions. Each session has had its own social, political system, which has essentially determined the spatial distribution of economy and the degree of regional disparities in terms of level of economic development.

In this paper the five sessions of economic history of East Central Europe are analyzed and compared. The sessions are as follows:

- *Pre-industrial interval before the mid-nineteenth century;*
- *The age of modernisation and industrialisation before the First World War;*
- *The age of integration and disintegration during the inter-war period;*
- *The age of emergence and decay of state socialism in the second half of twentieth century;*
- *The age of transition with reorientation and reintegration after the early 1990es.*

Key words: economic history, East Central Europe, spatial structure of the economy
JEL Classification: N30

2. INTRODUCTION AND THEORETICAL BACKGROUND

The explanation of the actual regional differences of East Central Europe in terms of economic development can not be entire without the knowledge of the historical preliminaries. The aim of this paper is to provide a comparative historical investigation of East Central Europe and an overview and models of the changing spatial inequalities. I wish to identify and present those factors which influenced the spatial distribution of economy from period to period.

The examination of the periodic nature of economic development inspired several researchers in the previous decades. W. W. Rostow identified and described a 5-stage growth theory in his book published in 1960. Later in the 1970s J. R. Friedmann [1] and H. Richardson [2] developed further the Rostow-theory. The former assigned a major role to industry in the process of

resource arrangements and in the formation of sites, while the latter author adapted the identified mechanisms to developing countries [3].

It was J. G. Williamson [4] who -following the footsteps of S. Kuznets- started to study the relationship between economic development and spatial development inequalities. According to his view, the degree of disparity varies in the various stages of economic development. The change of disparities over time can be displayed by a reversed U-shaped function. Even today, this Williamsonian view can be considered to be the theoretical basis, despite the fact that the adaptation of the model to emerging and transitional economies remains somewhat contentious [5].

In the economic development of East Central Europe from the mid 19th century until today, the Friedmannian and Williamsonian periods can be clearly identified. The only discrepancy is the appearance of the Soviet socialist power and ideology after the Second World War. In compliance with this, the three main milestones which separate the various periods in my study are the following: the first, the Second World War and the economic and political changes at the turn of the 1980s and 1990s. The article is divided accordingly.

3. THE AGE OF MODERNISATION

The middle of the 19th century, as the starting point of the study is justified by the fact that the industrial revolution started at this time in East Central Europe. Prior to this date in the pre-industrial age, rural societies and predominantly agrarian economies existed in this area. When describing the era before the industrialisation, it is important to point out that the spatial appearance of the population and that of the economic activities showed only limited differences, i.e.: it was balanced and unconcentrated. The disparities were mostly caused by the differences in the natural environment such as the climate, the weather, the soil conditions, the features of the terrain, water courses and vegetation.
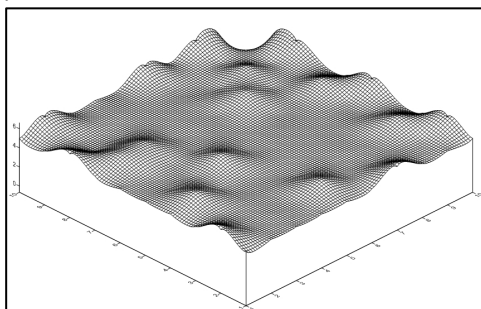
Graph 1
The model of spatial structure in the pre-industrial age
Source: Author's compilation.

Yet, over time, starting from the 1870s-1880s until the First World War, the industrialisation progressed at an ever-increasing pace, which -from the point of view of the spatial structure- was accompanied by two important phenomena namely urbanisation and the development of traffic infrastructure especially that of the railway network. It is important to note from a political and economic point of view that the central part of Europe was divided among the three powers of the Holy Alliance, namely the Habsburg Empire (later to be called as the Austro-Hungarian Monarchy), the Kingdom of Prussia (later referred to as the German Empire) and the Russian Empire. Its importance was that -apart from the difficulties arising from the political and cultural oppression- East Central Europe gained access to large and populous markets where it could sell its agricultural produce and industrial products.

In the age of modernisation, the geographical situation and concentration of the societies and as a corollary the economies of East Central Europe changed. Three factors influenced the localisation of the population, the work-force and the economic activities. The first and most important one is the natural increase of the birth-rate, which was the highest in the Polish-Russian territories (76% increase between 1887 and 1910), lower in the Prussian-Polish parts (46%) and the lowest in the Austro-Hungarian Monarchy (35%) [6]. The second one is the phenomenon of urbanisation which -thanks to the increased number of jobs and the ability to cater for the needs of an increased number of people- gave a boost to the number of urban population. First and foremost Budapest, Warsaw and Prague became a metropolis on a European scale, but Lódz, Krakow and Szczecin also exhibited rapid growth rates.

Table 1
The most populous cities in East Central Europe (thousand inhabitants)

Name of the city	*1870*	*1910*
Budapest	320	880
Warsaw	308	771
Prague	252	640
Wroclaw	239	512
Lódz	39	352
Szczecin	81	236
Gdansk	98	170
Poznań	66	157
Krakow	50	150
Brno	73	126
Szeged	70	103

Source: Author's compilation by Magocsi [6].

The third factor was the mass emigration to the New World which predominantly reduced the population of rural areas. As a result of the economic development more and more people had achieved a middle-class status, nevertheless besides the process of gentrification until the First World War approximately 3.5 million people had emigrated from the Monarchy, most of them to the United States of America. During the same period, from the Polish territories about 4 million people emigrated to the USA, France or other parts of Western Europe.

Parallel to the disparities in population, significant income inequalities emerged. The Austrian Hereditary Lands and Bohemia-Moravia had income levels well above the national average, while other parts of the state lagged behind substantially [7]. Hence, this medium-level development concealed substantial territorial inequalities.

Table 2
Regional differences in the Austro-Hungarian Monarchy (GNP per capita)

Name	Crown (1913)
Austrian lands	790
Bohemia and Moravia	630
Hungary	327
Dalmatic and Slovenia	300
Bukovina	300
Galicia	250
TOTAL	438

Source: Author's compilation by Horváth [8].

Poland showed similar disparities as the Monarchy. The industry was far developed in the Russian parts, while the German parts were dominated by agriculture.

During the period of modernisation East Central Europe was characterised by the first wave of urbanisation and industrialisation, by the migration and growth of population and -as a result of the development in infrastructure- by an unbalanced territorial structure. During this period the spatial socio-economic inequalities increased a great deal which was accompanied by the increasing concentration of economic activities. The largest agglomerations in East Central Europe by the end of this period were Budapest, Warsaw and Prague, while Lódz Krakow and Szczecin exhibited the fastest growth rates.
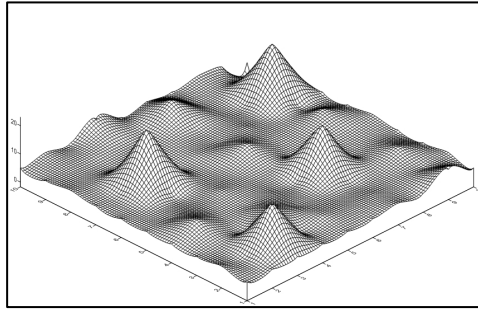
Graph 2
The model of spatial structure in the age of modernisation
Source: Author's compilation.

4. THE AGE OF INTEGRATION, DISINTEGRATION AND ISOLATION

By the early 1920s the map of East Central Europe had been transformed a great deal. The new borders drawn up by the peace treaties concluding the First World War initiated the process of integration in the north and disintegration in the south. After more than one century an independent Poland reappeared again on the northern part of East Central Europe; moreover as one of the largest states of Europe. In the south, new states emerged following the disintegration of the Monarchy. The borders which had been altered and multiplied, now offered new political-administrative circumstances. This statement was especially valid for the territories of the former Austro-Hungarian Empire and the newly-born Poland [9].

The total new political map of East Central Europe drawn by the peace treaties did not create a stabile status, which can be traced back to many reasons. Rothschild [10] named ten among the most important features:

- economic underdevelopment;
- weakly mechanized agro sector;
- overpopulated rural areas;
- significant, poor peasantry;
- insufficient infrastructure;
- weak or missing social middle classes;
- insufficient educated bureaucrats;
- lack of comprehensive literacy;
- limited experience in the field of parliamentary democracy;
- lack of capital investment.

To the above mentioned Rothschildian list at least one point can be added. The borders -especially in the case of the territory of the former Monarchy- separated the resources and the capacities of the processing industry.

That is the reason why the successor states should have realised substantial trade in order to maintain or to increase efficiency. Instead, isolation, mutual mistrust dominated the international relations. The reason: the new states were only a little less ethnically heterogeneous than the former ones. The winner states integrated a substantial amount of minorities into their respective countries which implicitly implied a demand for revenge and revision from their part. Unfortunately this led to isolation and competition among the countries of the region which is underpinned by the increasing customs duties presented in the following table.

Table 3
Average extent of custom on manufactured goods by countries

Name	*Manufactured goods (%)*	
	1913	*1925*
Austria	18	16
Czechoslovakia	18	27
Poland	13-18	27
Hungary	18	32

Source: Author's compilation by WTO [11].

The Great Depression in 1929 had an extremely negative impact on the region of East Central Europe, since it reduced dramatically the already rather meagre amount of capital investment flowing into the region. It is important to note that up to the Great Depression in 1929, the regional disparities in development had not changed fundamentally. Only the economy of Hungary started to decline as a direct result of the substantial loss in the territory of the country and the policy led by the Little Entente aiming to isolate Hungary.

Table 4

Absolute and relative position of East Central European countries
by level of development

Name	GDPpc (int. $ on 1990 prices)				GDPPC (Austria=100%)			
	1870	1890	1910	1929	1870	1890	1910	1929
Czechoslovakia	1 509	1 912	2 495	3 046	79,8%	83,5%	82,7%	81,8%
Poland	946	1 284	1 690	2 120	50,0%	56,1%	56,0%	57,0%
Hungary	1 179	1 572	2 192	2 473	62,3%	68,7%	72,7%	66,4%
Austria	1 892	2289	3 017	3 722	100,0%	100,0%	100,0%	100,0%

Source: Author's compilation by Maddison [12].

Prior to the Second World War, East Central Europe had increasingly got into the sphere of interest of the Nazi Germany both from a political and economic point of view. The Western powers did not and could not prevent this increase in influence. Hence the several decade-long peaceful development of East Central Europe came to a halt again. These countries drifted again into a new global war, which brought them the squandering of war economies and their subsequent collapse.

Only minor territorial changes took place during the period between the two World Wars due to the limited time-span. Predominantly the modified borders and the protectionist economic policy influenced the changes in the territorial structure. In the case of Poland the integration of the previously unevenly developed regions took place, while in the territory of the erstwhile Monarchy the process of disintegration started to emerge. In all the states the economic importance of the new capitals and regional seats increased, while the role of peripheric and borderline settlements seemed to diminish. The main reasons for the change in territorial disparities are the substantially modified dimension of the countries, the Great Depression and the preparation for the war. The most important economic centre which emerged during this period was Gdynia in Poland and the central industrial region.
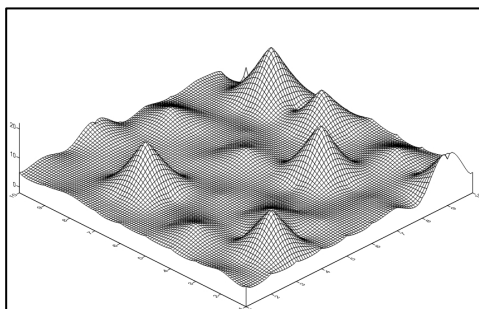
Graph 3
The model of spatial structure in interwar period
Source: Author's compilation.

5. THE AGE OF THE EMERGENCE AND DECAY OF STATE SOCIALISM

The peace treaties concluding the Second World War more or less restored the „status quo ante bellum" in the western and central parts of Europe. Nonetheless, it was a fundamental change compared to the previous situation that the Soviet Union acquired the possibility of organising the economy and politics of the eastern countries. The Russians dominated the region for nearly half a century until the end of the 1980s. By this time the economic reserves of the „Eastern bloc" had been completely depleted which was accompanied by the collapse of the Soviet Union.

Following the often violent and illegal acquisition of the control over the political systems of East Central Europe, the Communist economic system was established in these countries. In compliance with the political-economic ideology, the transformation of the state into an industrial-agricultural economy was encouraged with a special focus on heavy-industry. Industrial development and military economy was enforced in the 1950s. As a result of this, in every country the share of the industry increased in the national income and in the workforce. Regions already having industrial capacity, industrial traditions and the necessary resources (coal, ores etc.) were at an advantage.

Enyedi Gy. [13] focuses on the characteristics and inequalities of the East Central European socialist economy in the 1970s in a detailed study. According to his work the disparities within the countries and among the countries were substantial. The eight East Central European states fell into three categories as far as the levels of development and inequality were concerned. The first category included the German Democratic Republic and Czechoslovakia with the highest level of development and the most equal territorial structure. The second, intermediary category included Poland and Hungary, while the Balkan countries were the least developed countries with the least equal territorial structure. Enyedi Gy. pointed out that there was a strong relationship between

economic development and spatial-economic levelling, moreover the economic structure was strongly linked to the level of the economy and the structure of the sector. The lack of microeconomic balance was also expressed in the lack of spatial balance. He pointed out that the rapid and intensive industrialisation characteristic of the era could cause imbalances, since industrial activities were forced to be located in several traditionally agricultural areas, which upset the structure of the settlement and the work-force. Nevertheless spatial imbalances will be mitigated over time, due to the fact that the created production unit will be more and more imbedded in the local economy, will use its resources and will foster the settlement of the service sector in parallel. Yet -according to the author- one should not overestimate these mechanisms. Enyedi Gy. reiterated that in the socialist countries -compared to the capitalist countries- greater efforts were made towards the achievement of a balanced territorial structure, despite the fact that the developed countries also contributed substantial financial resources for this objective. In the case of Czechoslovakia the most important regional disparity existed between the two allied states (i.e.: Slovakia and the Czech Republic) which, unfortunately overshadowed other existing disparities and their solutions (e.g.: disparities between Czechoslovakia and Moravia or within Slovakia). It is true that by the development of the Slovakian parts, predominantly by the settlement of industries, substantial efforts were made towards the mitigation of differences on a national level, which in turn alleviated the inequalities within Slovakia. In an international comparison Czechoslovakia (besides the GDR) had the most balanced economic spatial structure in the region. In contrast, Poland was characterised by a strongly polarised economic structure, despite the fact that the achievement of a balanced spatial structure was a clear priority of the Polish territorial policy. The reason for this: after the Second World War, the newly attached parts of the country had to be integrated. In the 1960s Poland managed to achieve that the six most developed voivodships' (Katowice, Krakow, Lódz, Poznań, Warsaw, Wroclaw) share in the GNP decreased.

In the case of Hungary the issue of regional imbalances can be narrowed down to the relationship between Budapest and the country [13]. Efforts after the Second World War managed to reduce the disparity between these two spatial units, but could not eliminate it completely. Budapest's share in the industrial production dwindled, since many production sites were transferred to other parts of the country. The countryside also benefited from the rapid agricultural development which increased the average income. At this time inequalities were not reflected by the different income levels but rather by the different life conditions.

Dusek's [14] statement is closely related to this issue. According to him during the 1960s and 1970s, the degree of spatial inequality was less in the states of East Central Europe than in the similarly developed market economies, i.e.: the socialist countries seemingly had a more balanced regional spatial

structure. Therefore it is not surprising that after the change of the political system a large-scale differentiation took place, these countries adapted to the international trend of the previously described Williamson curve. The diminishing income levels arising from the crisis were coupled with significantly higher disparities.

The Soviet-type location of industry which emerged together with the political and economic influence of the Soviet Union brought about significant changes in the social and economic spatial structure. The most important characteristics of the Soviet-type location of industry were: the state regulated production and economic relations, the strengthening urbanisation, the decreasing role of the western areas coupled with the increasing role of the eastern areas, raw materials as the most important location factor of the industry as opposed to the market. Therefore the main reason for the changing disparities was the change of the traditional geographic orientation of the economy and the Soviet-type location factors. New industrial centres appeared such as Leninváros and Sztálinváros in Hungary; Litvinov and Krompachy in Czechoslovakia and Nowa Huta in Poland [15].
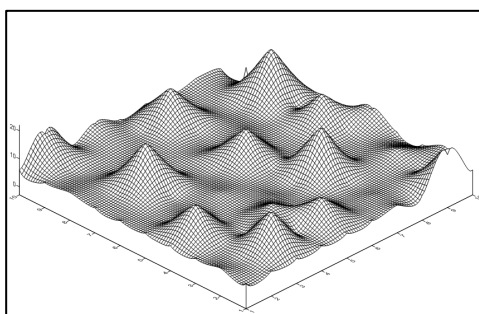
Graph 4
The model of spatial structure in the age of emergence of state socialism
Source: Author's compilation.

The socialist economic structure described above was characteristic of East Central Europe at the turn of the 1960s-1970s. Two important factors modified this structure in the coming years and decades: the spill over effect of the 1973 and 1979 oil crises and an intensifying political resistance in the socialist bloc (especially in Poland in1968, in 1970, in 1976 and in 1981).

Table 5

The annual average GDP growth by countries before and after of the Oil Crisis

Name	*1950-73*	*1974-90*
Czechoslovakia	3,08%	1,12%
Poland	3,60%	0,85%
Hungary	3,45%	-0,35%
East Central European average	3,79%	0,51%

Source: Author's compilation by Maddison [12].

The large-scale, multi-step hike in the price of oil had several negative effects for the East Central European countries poorly endowed with hydrocarbons. First and foremost it increased the import price of energy resources, hence disturbing the relative balance of foreign trade and the state budget. In most cases the socialist countries financed these imbalances by external credits (main lenders: IMF, West-Germany). Especially the indebtedness of Hungary and Poland increased a great deal. At the same time the crises contributed to the contraction of external markets. As a result of the diminishing revenues due to recession, the Western European countries reduced their import from the countries of the Eastern bloc, which in turn meant a further drop in their revenues. It is important to note that while in the Western countries the significant increase in the price of oil in the medium and long term led to savings, the formation of reserves and a more efficient use of resources, in the COMECON countries this increase in intensity did not take place. (due to the slower, more gradual increase of the Soviet oil prices). The socialist industry's hunger for energy and raw materials and its inefficiency remained, yet the financial and market pressure brought about by the crises strengthened a demand for the reforms.

Yet the lack of reforms and their inefficiency led to the ageing of production technologies and infrastructure, to the lack and inefficiency of the service sector, thus to a diminishing competitiveness and indebtedness (except for Czechoslovakia as far as indebtedness is concerned). As a consequence, between the Eastern and Western parts of Europe disparities in economic performance and the standard of living further widened.

Table 6
Absolute and relative position of East Central European countries
by development

Name	GDPpc (int. $ on 1990 prices)			GDPpc (West Europe=100%)		
	1950	*1973*	*1990*	*1950*	*1973*	*1990*
Czechoslovakia	3 501	7 041	8 517	69,84%	57,91%	50,48%
Poland	2 447	5 340	5 115	48,81%	43,92%	30,32%
Hungary	2 480	5 596	6 471	49,47%	46,02%	38,35%
East European ave.	2 120	4 985	5 437	42,29%	41,00%	32,22%
West European ave.	5 013	12 159	16 872	100,00%	100,00%	100,00%

Source: Author's compilation by Maddison [12].

Illés I. [16] based on the dynamics of the national and regional economy divided the "short" twentieth century into two completely different parts. The first part lasts for 40 years from the early 1920s until the early 1960s, in which period one can observe the closing-up of Central and South-Eastern European states, which was in many cases accompanied by an increase in regional differences. From the second half of the 1960s, the economy of these countries starts to fall behind accompanied by the mitigation of regional differences. Nemes Nagy J. [5] -following the footsteps of Enyedi Gy.- used data from a later period; he examined figures from Central Europe (East Central Europe) from the late 1970s and early 1980s. His work focused on the following group of socialist countries: Albania, Bulgaria, Czechoslovakia, Yugoslavia, Poland, Hungary, the GDR and Romania.

After calculating an average for these countries, he divided the countries into ten categories. Based on the development level of the 236 "counties", the distribution of the region's population of 130 million showed an asymmetric, lognormal shape. Two-fifths of the population lived in a highly developed area (25% above the average), one-third of the population lived in an area with average development, while the rest, approx. one quarter of the population lived in backward areas (25% lower than the average).

By examining the territorial structure of the region the author explored some fundamental relationships. The economic development decreased on a Northwest-Southeast axis. The author concluded that national borders did not alter fundamentally the above described logic in territorial structure. Based on their level of development, he identified some groups of counties. E.g.: a North-eastern Polish "cluster" with low development figures and the geographically dispersed yet clearly identifiable group of highly-developed big cities. These zones existed like islands in an underdeveloped environment.

Nemes Nagy J. also focused on the changes of the 1980s and he concluded that the regional rankings did not change except for some Polish regions which fell back as a result of the social and economic crisis in Poland.

The decline of state socialism was brought about by the depleting resources of the political and economic order, which was partly the result of an unfavourable international and national political climate. This period's impact on spatial structure was the alleviation of development inequalities. The reasons behind this levelling were the following: attenuation in the impact of state mechanisms, stagnating urbanisation, reforms with low intensity. As a consequence new centres and concentrations did not emerge.
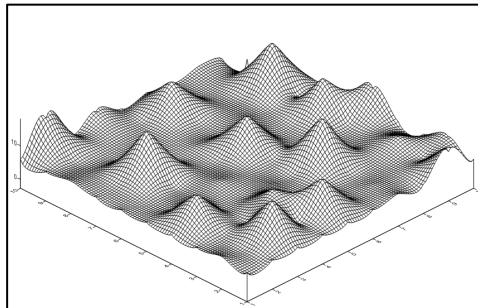
Graph 5
The model of spatial structure in the age of the decay of state socialism
Source: Author's compilation.

6.   THE AGE OF TRANSITION AND REORIENTATION

The collapse of the political and economic system of the "Eastern bloc" was unexpected both in its speed and in its scale. By the mid 1990s the slow economic decline of the East Central European countries had accelerated to a dramatic level. These economic depressions can be compared to the biggest ones of the 20th century. Despite the large-scale economic downturn -thanks to the collapse of the political systems in parallel- the reorientation of the East Central European region to the west began.

The changes started in 1989, the modification of the geopolitical situation, the process of democratisation, the change in the property system and the structural change in the economy did not leave the spatial structure of these countries unchanged. The earlier neglected Western regions which had been labelled previously as "uncertain" were rehabilitated by virtue of the proximity of German and Austrian markets. As a result, the significant westward shift of economic centres could be observed. At the same time the eastern parts favoured during socialism seemed to be losing their role. In the following period the prospects of capital regions were the brightest in the entire zone thanks to their favourable geographic situation, economic potential, ability to

attract capital and their cultural heritage. The diminishing role of agriculture in the labour market and in the national economy is a threat to the inner peripheric and eastern (southern) regions [17].

Thus, the more industrialised, more urbanised regions endowed with better infrastructure could put up with the challenges caused by the new circumstances more easily. The adaptability of the regions was fundamentally determined by the diversity of the economy, the degree of socioeconomic development and capital and innovation endowment [18].

The central regions, the Western regions and some Polish industrial centres and ports were able to react more rapidly to the changes in circumstances thanks to their more diversified workforce and industry. Regions with a more concentrated, monostructural manufacturing and employment structure suffered the greatest shock at the beginning of transition. In the Czech Republic and in Slovakia the decline of the highly specialised industry was the most severe problem. According to the above-mentioned phenomena the following regional classification can be drawn up:

- the leaders of transition (capital regions and other centres);
- newly arrived (returning) regions (western regions);
- losers (old industrial regions);
- undeveloped peripheries (Eastern agricultural regions).

The period of transition was accompanied by substantially increasing spatial imbalances which can be explained by the withdrawal of the state from the economy, the strong appearance of market regulators, the strengthening of disurbanisation processes and political-economic reorientation. These processes reinforced the role of Western and central regions, while resulted in a declining geopolitical situation for the Eastern ones. The main reason for the intensification of disparities is the rapidly and dramatically altered political-economic situation.
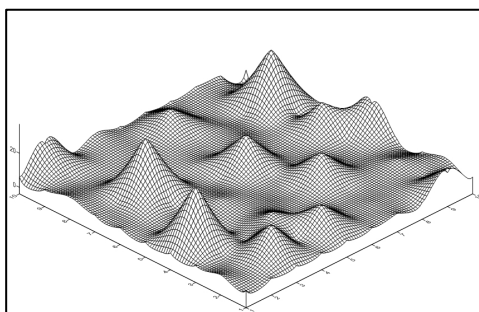
Graph 6
The model of spatial structure in the age of transition and reorientation
Source: Author's compilation.

7. CONCLUSION

The Friedmannian and Williamsonian periods have been clearly identifiable during the last one and a half century of the East Central European economic development. A number of internal and external incidents however significantly have influenced or rather deformed the lengths and effects of the intervals.

The capitalist development and the industrialisation, which began in the second half of the 19th century, lasted fundamentally till the end of the Second World War. Although the peace treaties concluding the First World War modified the economic, politic conditions to the greatest extent in the centre of Europe. The multiplication of borders, the increase of their dividing function, as well as the nationalism and protectionism pursued by the governments during the interwar period disrupted the former, traditional economic relations and spatial structure.

The Soviet expansion after Second World War made an even larger impression on the spatial distribution of economic activities. The Soviet economic policy, which deviates from the capitalist in many respects, brought new characteristics and east orientation to the East Central European states. Since the 1960s the effects of this policy continuously weakened till the 1980s, when it ended.

Thereafter the reintegration and globalisation of East Central Europe began under the conditions of capitalism, market and competition. The transition has had twofold effect and resulted rising extent of inequalities. Some regions have performed well, i.e. showed rapid economic growth and convergence; others have stagnated or lagged behind.

With the comparison I intended to set the effects of transition of the last two decades into historical perspective. Accordingly I consider the transition period unique due to its rapidity and dimension. Just the ages of modernisation and the emergence of state socialism have resulted such significant changes in spatial structure of economy of East Central Europe as the transition in the last decades.

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THE COMPARATIVE ANALYSIS OF THE PERFORMANCE OF HUNGARIAN AND EUROPEAN ENTERPRISES

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Enterprise and entrepreneur are key words of today just like globalization and knowledge-based economy. (Román, 2008) These concepts greatly determine the increase of economic performance and represent real value and competitive advantage. The performance of economy is dependent on knowledge at an increasing degree while the success defined as goal depends on the enterprise, the entrepreneur i.e. the user of this knowledge.

1. THE ENTERPRISE STRUCTURE OF THE HUNGARIAN ECONOMY

During the years 1989-90 Hungary came through a radical social-economic transformation, which we consider as the beginning of the political transformation era that initiated the process of the radical transformation of the economy. The economic goal of the political transformation is to build a well-operating, modern private-property-based market economy; the heart or base of the system is to create market competition and - besides the increasing productivity - social welfare.

Parallel with the privatization of public enterprises a slow spread of private enterprises began. (Práger, 2008. pp. 282-283) In 1998 the Company Law was carried in Hungary which made it possible to transform the public enterprises into modern legal form. After 1990 a mass of new private enterprises was established which at the same time also involved the structural transformation of production. The privatization of public property and the formation of new private enterprises together resulted that in 1992 the half of the GDP was generated by the private sector and this proportion has been increasing rapidly since then.

The political transformation established for the sudden growth of enterprises by changing the whole political and economical environment. The growth of the number of economic players itself is only *the sign of the headway of market processes, the spread of competition and a healthy economic* but the process is extremely complex, the expansion of the entrepreneurs' circle is the result of several economic developments.

Within a decade following the political transformation the structural system of the economy changed radically, an entrepreneurs' structure evolved where the number of registered enterprises is over 1 million which number

increased even further but in a slower pace after joining the EU. (See table 1 and figure 1.)

Considering the data of the last years there has not been any radical change in the structure of enterprises of the Hungarian economy based on the data of KSH the number of registered enterprises reached beyond 1.5 million, the number of active enterprises was 701.390 in 2008. The signs of the financial-economical crisis could not be seen in the number of active business organizations at the end of 2008.

Table 1
The number of registered and active enterprises in Hungary

Period	Number of live enterprises	Number of registered business organizations	Difference
Year 1998	---	1100757	--
Year 1999	580362	1126889	*546527*
Year 2000	625147	1175480	550333
Year 2001	645881	1207831	561950
Year 2002	693788	1236890	543102
Year 2003	700855	1263990	563135
Year 2004	708307	1286993	578686
Year 2005	707756	1298989	591233
Year 2006	698146	1276076	577930
Year 2007	688058	1325635	637577
Year 2008	701390	1654299	952909
Year 2009	--	1686351	--

Source: KSH

Definition of an active enterprise: an enterprise is active if it had income or employed at least one person in the current year. (KSH, 2005)

However the difference between the number of registered and active is increasing rapidly. The number of active enterprises slightly decreased in the years before the outbreak of the crisis while a constant increase can be seen in the number of Ltd-s and Plc-s. The rate of increase is 12% in case of Ltd and 5% in case of Plc-s. The number of *free enterprises* decreased by 1% compared to the previous year, in case of the other corporate enterprises (Lp-s, Gp-s, cooperatives) the rate of decrease is between 4 and 6 %. The most popular legal form within the enterprise structure of the Hungarian economy is the Ltd which can also be seen in figure 2. It constantly gathers ground against free enterprises.
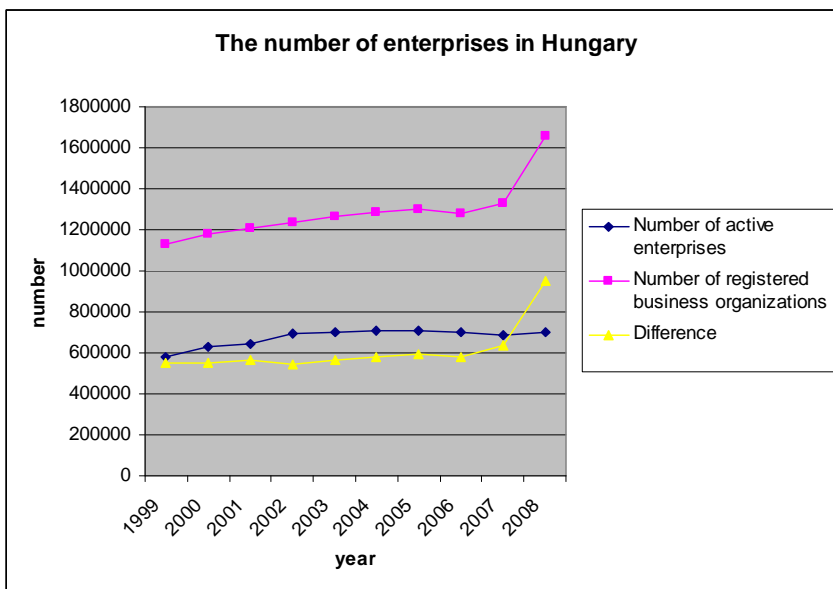
Figure 1
The number of registered and active enterprises, 1999-2008 Hungary
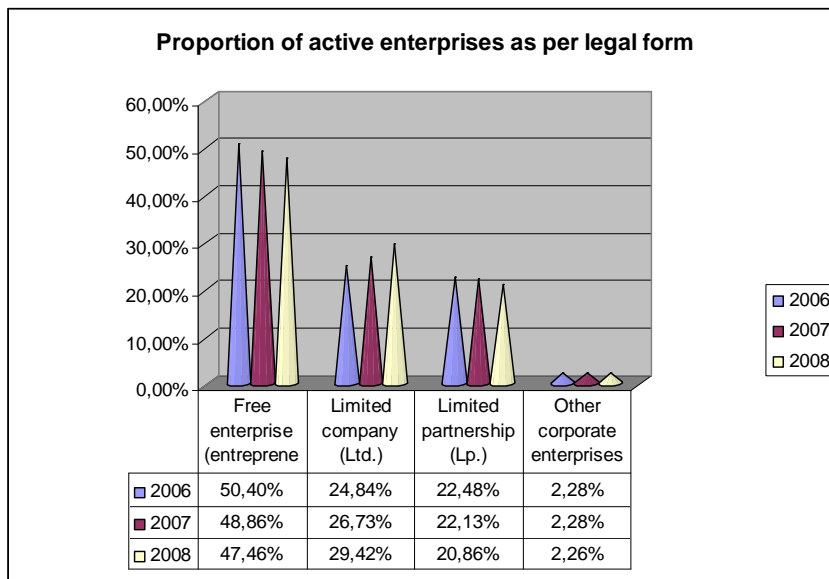Source: http://statinfo.ksh.hu/Statinfo/haViewer.jsp (12 July 2010)

	Free enterprise (entreprene	Limited company (Ltd.)	Limited partnership (Lp.)	Other corporate enterprises
2006	50,40%	24,84%	22,48%	2,28%
2007	48,86%	26,73%	22,13%	2,28%
2008	47,46%	29,42%	20,86%	2,26%

Figure 2
Proportion of active enterprises as per legal form
Source: Own work based on the data published in the statistical tables of KSH
(2006 to 2008)

When analyzing the data of actually active enterprises we get the following picture of the structure of the Hungarian economy: in 2008 98.4 % of live enterprises were small enterprises with less than 50 employees, the rate of medium enterprises with employees between 50 and 249 was 0.7%. The small and medium enterprises (SME) total up to 99.1% of the total active enterprises. The proportion of large enterprises – similar to the previous years – is only 0.1%. Within this – based on the data of KSH:

- the number of *micro enterprises* is rather high, 662 thousand, 94.4% of the active enterprises is either corporate enterprise with a small number of employees or self-employing free enterprise.
- 86.7% of *Ltd-s* is micro enterprise, 11.1% is small enterprise with employees between 10-49 persons, 3,955 are medium and 566 are large enterprises.
- out of 3.728 *Plc-s* 360 are large enterprises, 847 are medium enterprises, but a larger proportion (67.6%) is small enterprise, 40.2% of these is micro enterprise.
- out of the 2.318 *cooperatives* 10 operated as large enterprise, 202 were medium, 425 (18.3%) small and 1.681 (72.5%) micro enterprises.
- 98.2% (143 thousand) of the *Lp-s* were micro enterprises and only 14 were large and 85 were medium enterprises.
- 97% of the *Gp-s* were micro enterprises.
- 99.5% of *free enterprises* were micro enterprises and their proportion grows year by year.

As per the company-demographic data of KSH, the number of active enterprises increased in every category compared to the same period of the previous year. The biggest growth was found in the category of large enterprises, by 2008 their number increased by 2.9%, this was followed by a 1.9% growth of free enterprises, then the small enterprises with 1,7%, while the number of small enterprises increased by 1.3%. The enterprise structure is changing constantly, the number of SME-s is increasing while their proportion is also changing.

2. CHARACTERISTICS OF THE HUNGARIAN SMALL AND MEDIUM ENTERPRISES TODAY

The last 20 years were on the rapid development of technologies, the internationalization of enterprises and the globalization. In this process the minimum economical plant-size became much smaller this is one of the most essential factors of the headway of the SME's. (Román, 2002)

A significant part of the Hungarian micro, small and medium enterprise sector has been tried by the economic crisis that marked the last year. The

reason for this was not only the narrowing of the markets but on the one hand there is no invigorating program that is overall and effective enough, on the other hand vital disadvantages limit their margins.

The emphatic role hold by the domestic SME-s within the economy presents well that this sector has been permanently adding up to more than 99% of the domestic enterprises for already two decades. These enterprises play a significant role particularly in job creation and increasing unemployment as they employ at least two third of the total employees therefore this sector can be considered the biggest employer. In the same time these enterprises contribute to GDP with an average 40%, while their export is around 20%.To the strengths of the enterprises of this sector belong the quick adaptability and the high creativity but in spite of these the domestic SME-s are notably behind the large domestic enterprises and to the well-developed member states of the EU considering their income and export. (Bubrik, 2010)

Based on the data of Global Entrepreneurship Monitor published by Zoltán Román by KSH in 2006, the indicator of the total enterprise activity was 11.4 in Hungary. Based on the 2008 report this number was 11,8. As per a fresh international comparison the data of entrepreneurial thinking show a negative picture as at the beginning of 2009 the rate of those who saw any possibility to start a new enterprise within the forthcoming 6 months was only 26% in Hungary. Lower rates were only shown in Belgium (23%) and Japan (13%). In Hungary 47% of the respondents are afraid of failure. This rate is higher in 6 countries: 49% in Germany, 52% in Romania and Spain, 53% in France, 55% in Greece and 66% in Russia.

Table 2
The partition of the most important indicators describing the situation of enterprises as per size categories, 2008 (%)

Index numbers	0-1 person	2-9 person	10-49 person	50-249 person	SME total	250- person	Total
Number of enterprises*	76,9	19,0	3,5	0,6	99,9	0,1	100,0
Employees*	6,9	215	21,7	19,4	69,4	30,6	100,0
Income	7,6	14,6	17,8	21,3	61,3	38,7	100,0
Export	4,7	6,7	11,6	14,1	37,0	63,0	100,0
Added value	6,1	12,7	17,0	19,6	55,4	44,6	100,0
Equity	8,6	11,6	13,2	19,9	53,3	46,7	100,0

*included financial sector

Source: NFGM Strategy of development of SME's 2007-2013, Interim Monitoring Report, Year 2009

A remarkable data line can be found a report of World Bank, in the part of dedicated to business environment, Hungary has been ranked to the 45th (2008) and 41st (2009) place out of 181 countries which in this connection means improvement but in case of protecting investors and taxation we only got to places of 113th and 111th.

The economic and social importance of SME sector is recognized at an international level. The governmental efforts to the development of enterprises are primarily orientated to increase the competitiveness of the sector.

Governments of every country have developed extensive programs on their business development policy that aim to ***improve the economic performance of these countries by involving the sector of medium size enterprises.***

The Interim Monitoring Report made the following statements for year 2009:

- The micro, small and medium enterprises represent 99.9% of the total active enterprises, within this the rate of self-employing or employee-less enterprises is the highest, 76.9%
- The SME-s provided employment for *69.4% of employees* within the business sphere in 2008.
- *61.3% of the income* of the enterprises was realized which rate had barely changed for years.
- *More than half of the GDP* was produced, the SME-s managed to increase their share from 55.1% (2007) to 55.4%. The share of SME sector in GDP-production has been increasing since 2005 continouisly.
- Their share in export – similarly to the data of 2007 – is 37%, - the share of large enterprises is constantly high, 63% as three third of SME-s produce for inland markets.
- The undercapitalization of SME-s is typical; the equity data still show the predominance of larger enterprises regarding concentration of capital.

Based on the above, it can be clearly seen why SME-s can be „the engines of economy". In fact their economic role indisputable, the current situation of SME-s fundamentally influences the situation of the whole economy.

The NFGM annual report that describes the situation of SME-s gives an objective picture of the development of this exceptionally important entrepreneur circle however the impacts of the financial-economic crises does not fully show up in the 2008 report yet.

- ➢ The basic structural features of small and medium enterprises – their numerical ratios, their share in income production, etc. – have slightly changed since 2000.
- ➢ They pursue activities that have high labor and capital requirements.
- ➢ They participate more in employment than in turnover or income production.

➢ The small and medium enterprises improved further in several areas (financing, management, info-communication, etc.). However their performance is smaller than of the small enterprises of developed countries. Their *competitiveness*, performance, effectiveness and human capital are required to improve perceptibly and in a notable pace.

➢ The economic growth slowed down already in 2007 which was not reflected equally in the indicators of the companies of different sizes.

➢ The headway of large companies and foreign-owned enterprises slowed down, in some areas even turned back (for example participation in capital, income, added value, export).

➢ The employment increased for both free and corporate enterprises, moreover the importance of SME-s in employment increased even further.

➢ The participation of micro, small and medium enterprises in GDP also increased.

➢ As a result of the evolving crisis the situation of micro and small enterprises declined in 2008 compared to 2007 concerning both their economic situation and prospects and their own perspectives.

Enterpreses by size and their performance

	Number of enterprises	Gross added value
■ Large enterprises /companies	1,20%	56,90%
■ Medium enterprises	1,50%	16,40%
□ Small enterprises	7,70%	14,60%
□ Micro enterprises	89,60%	12,10%
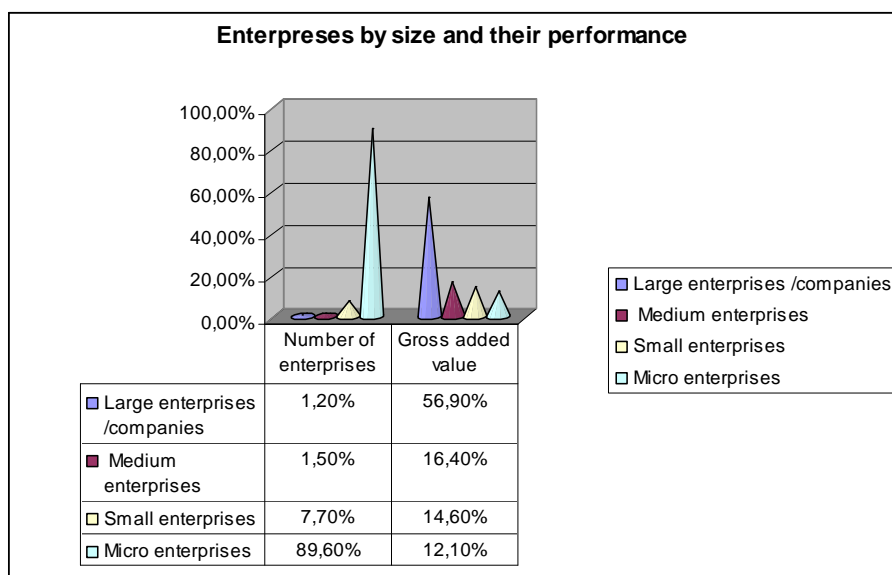
Figure 3
Enterprises by size and their performance, 2008
Source: Annual riport of APEH-SZTADI, 2009.

Figure 3 illustrates the feature of domestic enterprises that the number of micro and small enterprises is over 98% of the total enterprises.

Almost half of the gainfully employed find a job here, they give three third of the total net turnover and possess the fifth of the entrepreneurial capital. In the same time the majority of performance in turnover and GDP is provided by the large companies and they possess two third of equity, too.

3. A EUROPEAN UNION COMPARISON – BASED ON SOME HIGHLIGHTED FEATURES

In the developed countries including the European Union the SME-s got in the lime-light from the second half of the '80-s, this time it became clear that first of all this sector is able to create new jobs. (Kállay- Imreh, 2004)

Table 3
The main features of non-financial enterprises within
the European Union (EU-27) and Hungary (2007)

EU-2007 HU-2007		micro	small	medium	SME total	Large	TOTAL
Number and rate of enterprises by size	EU-27	**18.788**	**1.402**	**220**	**20.409**	**43**	**20.452**
		91,8 %	6,9 %	1,1 %	99,8 %	0,2 %	100,0 %
	HU	**708**	**27**	**5**	**740**	**1**	**741**
		95,5 %	3,7 %	0,7 %	99,9 %	0,1 %	100,0 %
Number and rate of employees	EU-27	**38.890**	**27.062**	**21.957**	**87.909**	**42.895**	**130.805**
		29,9 %	20,7 %	16,8 %	67,2 %	32,8 %	100,0 %
	HU	**1,302**	**556**	**481**	**2.339**	**737**	**3.076**
		42,3 %	18,1 %	15,6 %	76,0 %	24,0 %	100,0 %
Average size by no. of employee	EU-27	**2**	**19**	**100**	**4**	**1003**	**6**
	HU	**2**	**20**	**99**	**3**	**864**	**4**
Added value as per factor cost(billion euro) and its distribution(%)	EU-27	**1.251**	**1.132**	**1.070**	**3.453**	**2.537**	**5.990**
		20,9 %	18,9 %	17,9 %	57,6 %	42,4 %	100,0 %
	HU	**8,8**	**6,8**	**8,1**	**23,7**	**18,7**	**42,6**
		20,2 %	15,6 %	17,6 %	53,4 %	46,6 %	100,0 %
Work productivity* (th.euro/empl.), as a % of the average	EU-27	**32**	**42**	**49**	**39**	**59**	**46**
		69,6 %	91,3 %	106,5 %	84,8 %	128,3%	100,0%
	HU	**6,8**	**12,2**	**16,8**	**10,1**	**25,4**	**13,8**
		48,9 %	88,0 %	121,2 %	73,1 %	183,5%	100,0%

Source: NFGM, Small and medium size enterprises (Kis-és középvállalkozások) Annual Report 2009, (p. 43)

As per the most recent EU report (SPR) in 2007 the number of enterprises within the European Union (EU-27) was above 20 million from which 99.8% was small and medium enterprise, 92% micro enterprise with an average of 2 employees while this number was 19 for small, 100 for medium

and 1003 for large enterprises. The average number for small and medium enterprises was 4 persons. Table 3 illustrates the percentile distribution of some important indicators of Hungarian enterprises compared to the average data of enterprises of the European Union.

➢ The role of SME-s within the economy is constantly stable and strongly influence the competitiveness of the economies.

➢ Concerning the number of enterprises it can be stated that the difference between the Hungarian and the EU SME sector converge to each other and that within the SME sector the number of micro enterprises is the highest.

➢ The employment rate is higher than the EU-27 average both in the SME and the large enterprise sectors.

➢ In the same time the added value and the performance of work is far below the EU-27 average, the reason for this is that the performance of work is measured by the added value per 1 employee.

➢ When analyzing the average company size it can be sated that only the average size of small enterprises is over the EU-average.

The enterprise structure in EU-27 and Hungary, 2008.

	Hu	EU	HU	EU	HU	EU
	Number of enterprises		Number of employees		Net turnover	
☐ Large enterprises	0,20%	0,20%	29,00%	32,90%	49,70%	42,10%
☐ Medium enterprises	0,20%	0,20%	16,20%	16,20%	18,10%	17,80%
■ Small enterprises	4,40%	6,90%	18,90%	20,60%	16,30%	19,90%
■ Micro enterpises	94,70%	91,80%	35,80%	29,60%	15,80%	21,10%
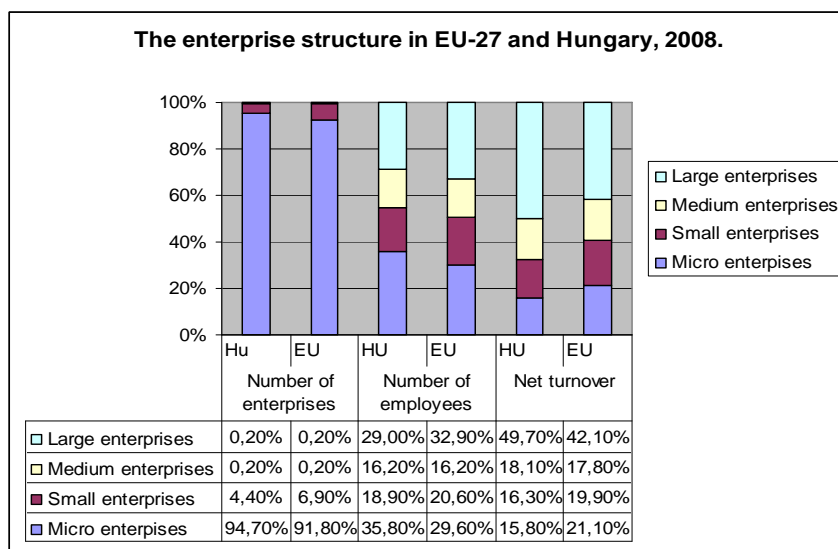
Figure 4

The enterprise structure of Hungary and the EU-average, 2008 (%)
Source: Own work, issue 109/3/2009. (p.1), Statisztikai Tükör

In the 1990-s the European Union faced more and more serious globalization and competitiveness challenges. The strategic program adopted in Lisbon in March 2000 gave a response to these challenges. The strategic goal adopted in Lisbon, 2000 included the following: by 2010 Europe has to become the *most competitive* and most dynamic *knowledge-based* economy that is

capable for a sustainable growth and providing more and better workplaces. Now we know that this goal has not been achieved.

The other element of Lisbon Strategy was the establishment of a business-friendly environment – especially for the small and medium enterprises (SMEs).

The Lisbon Strategy on growth and employment was the first to recognize that the competitiveness of SME-s is needed to be increased. The final objective of this strategy that by using all advantages of the community market the SME-s would expand their activities to the international markets as well and that they would become the *engines of the European and Hungarian economy* that slowed down in the last 10 years.

- The enterprise development strategy of the European Union believes that one important role of the small enterprises is the maintenance of economic competition. A keystone of market economy is the competition that is an important motivating factor, it inspires to increase effectiveness, encumber the forming of monopolies and incline the less competitive enterprises for competition. The new market players are most often the small and medium enterprises that bring along the possibility of fast growth while their market presence also intensifies competition. Kállay-Imreh, 2004)

- The formation of a business-friendly environment involves the simplification of regulation and the improvement of financial, social and environmental factors in which the enterprise operates and also the better information supply.

Achieving the goals of the Lisbon Strategy has been slowed down also by the worldwide financial-economic crisis starting in autumn 2008.

Figure 5 illustrates well that the Hungarian enterprises sort of lag behind the EU average regarding „capabilities and innovation" and internationalization.

Concerning the situation of enterprises the Hungarian economy also performs below the EU average. An international comparison was not possible due to the lack of data regarding questions of environment, „the possibility of a second chance" and „think small first".

The economic crisis seriously affected the Hungarian SME-sector as well which on the one hand resulted in the drastic decline of export and inland demand and of liquidity indicators and in many cases led to the termination of enterprises. The crisis environment compounded the following dangers threatening the SME sector:

- frequent liquidity problems
- weak payment discipline
- increasing circular debt

- slow spread of info-communication
- increase of competitive disadvantage against large enterprises.

In the same time the crisis gave also a chance as the role of this sector within the economy is significant in job creation and in fighting against unemployment therefore will be a key participant in fighting against the crisis as well.
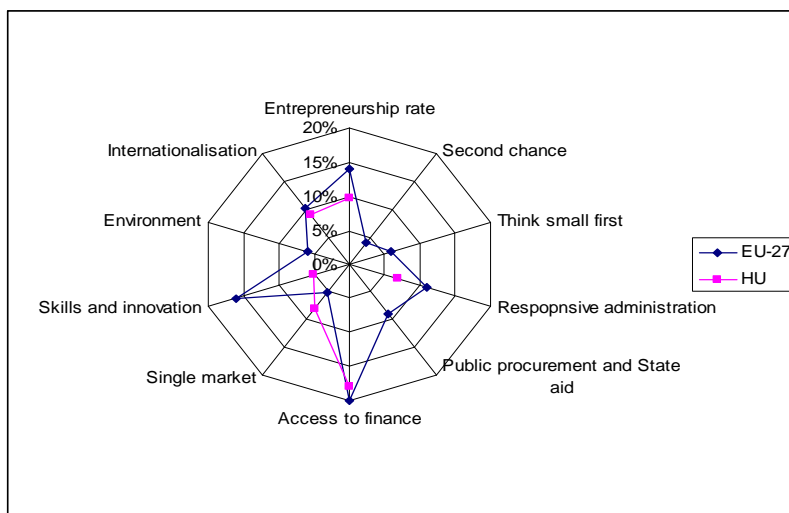

Figure 5
The comparative enterprise profile of the Hungarian and EU-27 SME-s
Source: Román: The role of SME's In Statistical Mirror, issue 2009/109., Volume 3, 4 August 2009. (p. 1) and in:European SMEs under pressure (p.5.)

4. CONCLUSION

The Hungarian SME sector responds to the changes of the domestic and international environment in a sensitive way, due to the under-capitalization the weak market relations and the lack of the most recent technologies and innovation. In case there won't be any significant improvement in these factors, the Hungarian SME sector might fall further back which could cause serious problems both in the revenue production and the employment.

"Hungarian businesses tend to fail more often than in more other Member States in EU, the overall rate of business activity is higher than in the EU-27 as a whole. … Similar to the average European respondent, Hungarian is more likely to prefer being an employee to being self-employed. Hungary stands out when it comes to the reasons for the respective performance: Hungarian respondents who prefer being an employee, more often than individuals in other countries, say it is because the right entrepreneurial climate

(e.g. lack of a business opportunity, lack of finances…) does not exist." (Eurobarometer: Entrepreneurship Survey of the EU25. P

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IMPACT OF TOURISM DEVELOPMENT ON THE ECONOMY OF THE SMALL REGIONS IN THE REGION OF NORTHERN HUNGARY

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1.   ABSTRACT

Almost every region in Hungary pursues endeavours at developing tourism. It is, however, doubtful whether we can count on tourism to exert significant impacts on the economy everywhere. The paper attempts to answer the fundamental questions of tourism development: what to develop and where and what funds to use for the development. It makes an overview of the planning documents involving tourism development in the small regions in the region of Northern Hungary and gives recommendation for their small-region-specific modifications based on their tourism and economic positions.
Key words
Tourism development, tourist destination lifecycle curve

2.   CONCENTRATION IN TOURISM

The Hungarian National Tourism Development Strategy (2005-2013), and the tourism development strategy of the region of Northern Hungary have created the background for local and small region tourism planning [1], [2]. The small regions in Northern Hungary prepared their conception plans and strategies for tourism development one after the other in the 2000s (Figure 1).
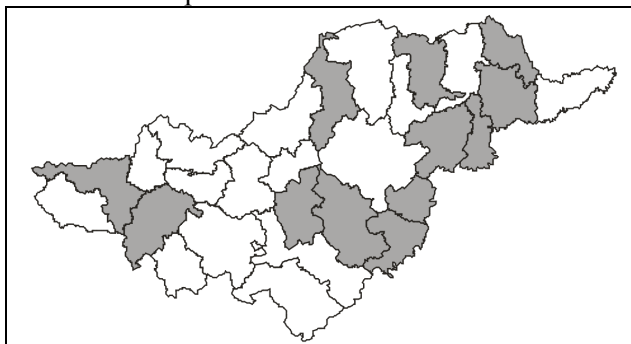
Figure 1
Tourism development documents in the small regions of the region of Northern Hungary

Source: author's own work

The impact study of tourism development in the small regions was performed on the basis of the changes in values of national and regional tourist traffic due to the large number of units to be analysed.

The Hirschman-Herfindhal concentration index (K), where xi is a regional characteristic given in a natural unit of measurement (number of bed nights), was used for evaluating the concentration of bed nights [3].

$$(1) \; K = \sum_{i=1}^{n} \left\{ \frac{x_i}{\sum_{i=1}^{n} x_i} \right\}^2$$

The set of values of the index is $1/n \leq K \leq 1$, where n is the number of small regions. A value above 0.6 of the index shows considerable concentration [3]. The values of the concentration index were calculated for the period 2000-2007, for the total, foreign and domestic bed nights, based on the national and regional small region data series.

The national concentration index of bed nights showed a small increase in the period until 2005, and then a decrease from 2006 on (Figure 2). In the region of Northern Hungary the value of concentration decreased until 2003, after which the spatial concentration of the number of bed nights increased to a small extent.

The index of the concentration of domestic tourist traffic is substantially lower compared to the cumulated value; in Hungary it was around 0.03 in the period 2000-2007, which shows a spatially more uniform distribution of domestic bed nights. In the region of Northern Hungary the index assumes values in the range 0.1-0.13 throughout.

The changes in the concentration of foreign bed nights show utterly different features. The national and regional data series present a more significant spatial concentration than that for domestic tourist traffic.
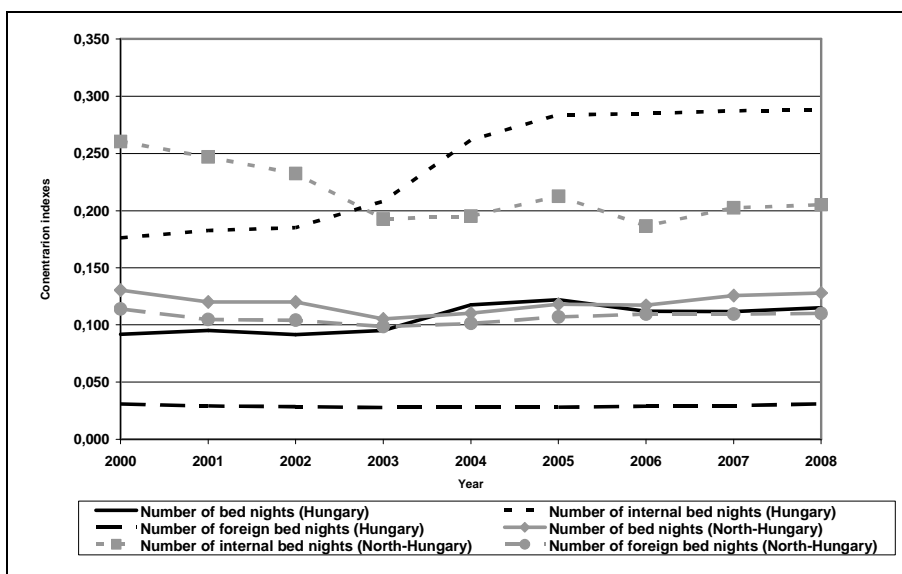
Figure 2

Changes in the values of the Hirschman-Herfindhal concentration index in
Hungary and the small regions of the region of Northern Hungary.
Source: Author's own calculation based on CSO data

The value of the concentration index grew significantly from 0.176 to
0.287 nationally in the seven years. The improvement experienced in the region
is only apparent, for it is mainly due to a substantial decrease in foreign tourist
traffic (-85,178 bed nights), which affected particularly the small regions of
Eger and Mezőkövesd having a more developed tourism trade.

3.   RELATIONS OF THE FACTORS DETERMINING TOURISM DEMAND

The indicators describing tourism supply, the economic and social situation
of the settlements and the social conditions of the population were used to
determine the factors referring to the development of tourist traffic of their
small regions by means of main component analysis.

The appearance of tourists at regional level is influenced to a greater
extent/more frequently by the tourist trade supply (the presence of
accommodations, catering facilities and other service providers) and economic
activity of the regions (income/revenues of private persons and local
governments, the number of enterprises and non-profit organisations, the rate of
those economically active and indicators relating to the standard of living). It is
influenced to a lesser extent/less frequently by the force of attraction of the
region (strengthening of the real estate market in the region and the rate of the

migration equilibrium) and the social situation of the region (criminality or the rate of those receiving social allowances).

The factors of tourist traffic were compiled by means of linear regression equations for all of the seven regions.

In the model for the region of Northern Hungary, based on the results of main component analysis, the factors of 'tourism supply' and 'economic activity' appeared in a significant way. The model is able to explain the specific values of the number of bed nights in the small regions in 68.3%.
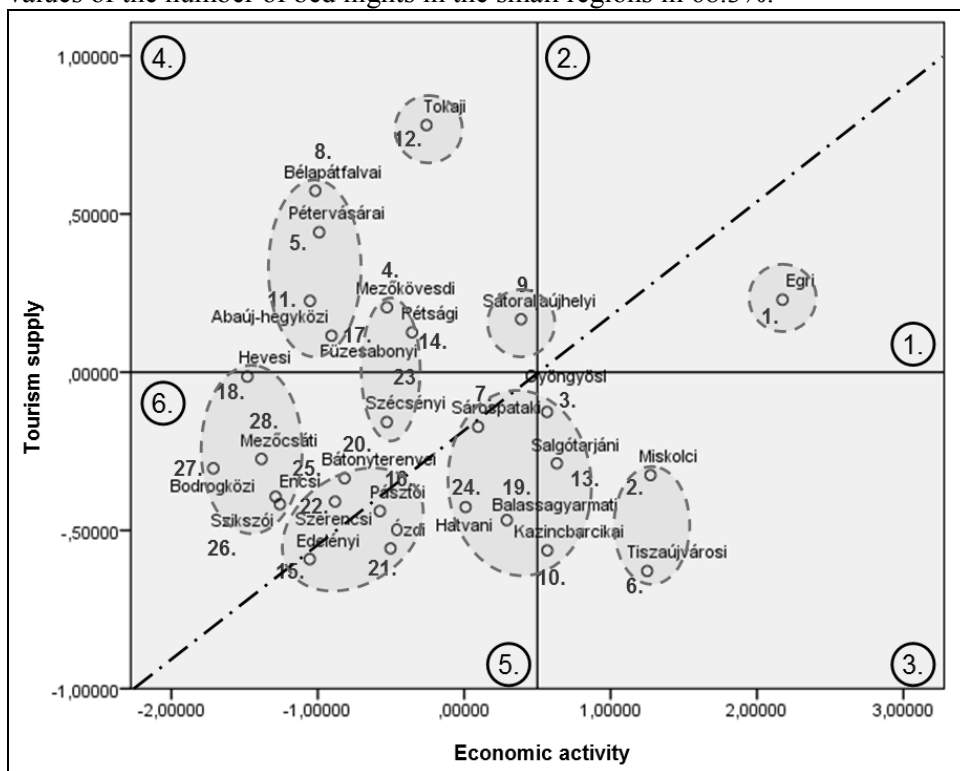
Figure 3
The small regions of Northern Hungary based on the eigenvalues of the factors of 'Economic activity' and 'Tourism supply'
Source: author's own calculation based on CSO data

The small regions in the region of Northern Hungary were placed in a coordinate system given by the dimensions of 'tourism supply' and 'economic activity' (Figure 3). The small regions were positioned based on the eigenvalues of the main component analysis. The value 0 represents for both factors the national average, with positive values representing above average and negative values representing below average performance.

The area below the diagonal is occupied by the small regions whose 'tourism supply' is better than their 'economic activity'.

The area above the diagonal is occupied by the small regions whose 'tourism supply' has a better position than that of their 'economic activity'. The two factors and their relations to each other were used to establish six categories, as shown in Table 1.

Table 1
Small region categories established on the basis of the factors of 'Economic activity' and 'Tourism supply'

Number of category	Category description	Small regions (given by their centres) put into the category
1.	Above average 'Economic activity' and 'Tourism supply' The position of the small region is more favourable in terms of 'Economic activity'.	Eger
2.	Above average 'Economic activity' and 'Tourism supply' The position of the small region is more favourable in terms of 'Tourism supply'.	-
3.	Above average 'Economic activity', below average 'Tourism supply'	Miskolc, Gyöngyös, Tiszaújváros, Kazincbarcika, Salgótarján
4.	Above average 'Tourism supply', below average 'Economic activity'.	Mezőkövesd, Pétervására, Bélapátfalva, Sátoraljaújhely, Abaúj-hegyköz, Tokaj, Rétság, Füzesabony
5.	Below average 'Economic activity', below average 'Tourism supply'. The position of the small region is more favourable in terms of 'Economic activity'.	Sárospatak, Edelény, Pásztó, Balassagyarmat, Ózd, Hatvan
6.	Below average 'Economic activity', below average 'Tourism supply'. The position of the small region is more favourable in terms of 'Tourism supply'.	Heves, Bátonyterenye, Szerencs, Szécsény, Encs, Szikszó, Bodrogköz, Mezőcsát,

Source: author's own work

The small regions were grouped by means of cluster analysis. In the analysis the 'group average method' was used based on squared Euclidean distance, where the distance between two groups is given by the average of their pairs of elements divided by the number of elements in the two groups [5]. By means of the method, groups of small regions with similar regional positions were determined (Table 1).

It is not fortunate to judge the positions of small regions only by their belonging to a certain category, for their sets of values fall into rather wide ranges.

In order to evaluate the positions and to formulate recommendations, the small regions were placed on one of the tourism destination lifecycle curves characteristic of them (Figure 4). The small regions were positioned using the specific values for 1990-2007 and the directions and dynamics of the changes.

The original model created by Butler was modified: the axis Y was used to represent the specific values of bed nights, instead of their number. Butler's model positions a single tourism destination/area on the basis of the data for the previous years, the features of the tourist environment, and the direction and dynamics of the changes. In its interpretation, one curve can be drawn for each region.

As the first step of positioning the small regions, characteristic lifecycle curves were identified.

- Curve 'A' has the small regions on it whose specific tourist traffic is among the highest; on the basis of the growth in the past years and their potentials it is probable that they possess significant growth potentials.
- The small regions of growth path 'B' are in the middle field on the basis of their specific values and they are characterised by small-scale growth or decline, or stagnation.
- Curve 'C' has the small regions on it whose tourist traffic is among the lowest as compared to the number of inhabitants in the region; in their positions very small changes can be observed, mostly towards decline.
- The small regions on curve 'D' show insignificant tourism performance, with further marginalisation processes to be expected.
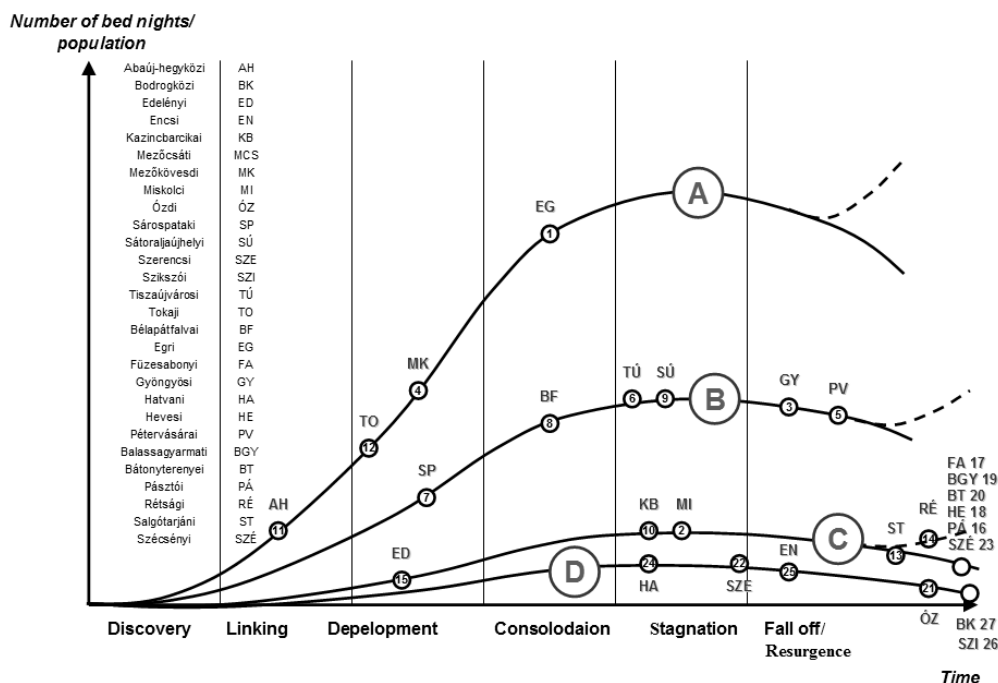
Figure 4
The small regions of Northern Hungary on tourism destination curves
Source: author's own calculation based on CSO data

Next, the small regions were placed on the curves according to their individual characteristics. As a result, the time dimension of axis X is always to be interpreted from the aspect of the small regions. The meaning of the positions of small regions is: a given small region is in which growth stage of the curves 'A', 'B', 'C', or 'D' as defined above.

4. RECOMMENDATIONS FOR A BETTER DEFINITION OF THE TOURISM DEVELOPMENT OBJECTIVES OF SMALL REGIONS

On the basis of the eigenvalues of the factors of 'economic activity' and 'tourism supply', a separate group is formed by the small region of Eger, where 'economic activity' and 'tourism supply' are above average. The 'economic activity' level of the small region is more favourable than its 'tourism supply', which is outstanding even at regional level. The capital required for developing 'tourism supply' may even come from internal sources. Due to its reputation, tourist traffic and growth potential, investors coming from outside of the region are also present and further investments may be expected. Maintaining the growth rate will require improving the efficiency of the industry, improving the

(international) awareness of the region and creating new (man-made) tourist attractions.

Similarly, a separate 'group' is created by the small region of Tokaj, with its regionally outstanding 'tourism supply', which exceeds its economic potential by far. Sources for developing tourism may originate in the region only to a lesser extent. Thanks to its growth potential, the national and international reputation of the name 'Tokaj', national and international investors are present in significant numbers particularly in the fields of viticulture, gastronomy and hostelry. The funds necessary for increasing the tourist traffic of the small region to a greater extent and for creating new/man-made attractions are most likely to be obtained from public funds. Resulting from the characteristics of the project application systems, first of all initiatives by the local governments may bring about quality changes in the region. Care must be taken, however, that the developments to be realised should meet the sustainability criteria. The private sector could take steps first of all towards 'tourism supply', a change towards reliable and high quality. It is the author's personal experience that he consumed both the best and worst quality wine he had ever had in Tokaj. It is not worthy of the wine of Tokaj called 'The wine of kings and the king of wines' that the region, in addition to being able to meet the highest requirements, at the same time also serves the consumer groups less particular about quality.

In the small regions of Miskolc and Tiszaújváros, 'tourism supply' falls far below their economic performance. The capital required for developing tourism may partially come from internal sources. In the small region of Tiszaújváros the effects of the development realised a few years ago have come to fruition. The development level of the tourism sector, however, continues not to justify the appearance of external investors in great numbers. The best chance for maintaining growth is seen in developing the services and attractions connected to the river Tisza, for the industrial character of the region is likely to disturb 'through traffic' to a smaller degree. Developments necessary for further growth can primarily be expected from the local government of Tiszaújváros. The small region has well defined basis on health tourism. It can be further developed by the Virtual Health Research Centre working at the University of Miskolc.

The role of tourism in the economy in the small region of Miskolc is low in spite of the fact that, following the small region of Eger, in Northern Hungary the largest number of guests arrives here. This results from the relatively large population of the small region. The economic force resulting from being the centre of Northern Hungary exceeds the level of 'tourism supply'. The author is of the opinion that mainly developments requiring smaller investment may come from internal sources. Tourism has been stagnating since the mid-1990s; investments that will put the region on a higher growth path may be implemented mostly from central funds, via project applications. In the small region – although there have been steps in a positive direction in the past years

– the number of high-quality accommodation is still low. Tourism experts in the region often express the opinion that there is a need for some 4-5-star hotels with a large accommodation capacity, which would meet the requirements of conference tourism and also act as starting points of tours exploring the tourist attractions of the region. The small region has a great number of hidden natural and cultural beauties and assets. Their mapping and exploitation for tourism purposes may contribute to an increase in tourist traffic.

The small region of Sátoraljaújhely, with its about average 'economic activity' and above average 'tourism supply', forms its own 'group'. Its tourism development, which seems to have come to a stop in the past 4-5 years, makes it probable that it is not yet possible to increase the number of tourists significantly without the continuous involvement of external funds (primarily from projects). Only developments with smaller volumes and necessary for the development of tourism may originate from small region funds. Its exceptional natural potentials and the colourful man-made and cultural heritage provide sound foundations for the implementation of development projects using mainly project funds. Careful, consequent and persevering tourism development has produced outstanding results in some villages and towns (Sátoraljaújhely, Füzér and Pálháza). It is necessary to widen the supply of commercial accommodation in addition to rural/village accommodation in the region.

The small regions of Gyöngyös and Sárospatak have about average economic opportunities and about average 'tourism supply'. The small region of Sárospatak is in a period of intensive growth, and that of Gyöngyös is in one of slight decline. Only smaller investments can be expected from internal resources, the small regions count on central regional development funds for initiating and maintaining growth.

The small regions of Salgótarján, Balassagyarmat, Kazincbarcika and Hatvan have about average 'economic activity' matched with below average 'tourism supply'. Their low level tourism performance is stagnating, or shows signs of decline. The funds for tourism development of smaller significance may come mostly from internal sources. The small regions will have to identify the narrow development areas which carry the opportunities for sustainable tourism growth (e.g. the villages in the particularly scenic areas at the foot of the Bükk Mountains in the small region of Kazincbarcika). No increase in the importance of tourism can be expected without a systematic cooperation of the local governments and small region centres.

The 'tourism supply' of the small regions of Bélapátfalva, Pétervására, Abaúj-hegyköz and Füzesabony exceeds their economic opportunities by far. The small region of Abaúj-hegyköz is in a period of rapid growth, while that of Bélapátfalva is in that of a slowing growth. The small regions of Pétervására and Füzesabony show signs of decline. The funds for further tourism development may almost exclusively come from external, primarily domestic sources. The limited resources of the local governments and the small number

of highly qualified professionals present limitations in winning project funding. Further results can be primarily expected via projects encouraging and supporting investments and promoting the tourism potentials of the small regions.

The small regions of Mezőkövesd, Rétság and Szécsény have, as compared to the previous group, less significant 'tourism supply' and somewhat more favourable economic potentials. The small region of Mezőkövesd is in a period of dynamic development, that of Rétság in one of 'revival' and that of Szécsény in one of decline. The small region of Mezőkövesd is moved by its 'tourism supply' along a growth path of 'B' type, while in the other two cases the regional importance of tourism is less significant. It is the small region of Mezőkövesd that can primarily count on the project funds necessary for maintaining the development, and in the other two cases the location in the vicinity of Budapest and a greater exploitation of the world heritage site may bring results. The small region of Mezőkövesd should increase its area of attraction within and outside of the regions, by building on its excellent accessibility.

The small regions of Heves, Mezőcsát, Bodrogköz, Szikszó and Encs belong to the laggards of the national ranking on the basis of their economic potentials. Their 'tourism supply' and performance are negligible, which furthermore is coupled with decline. There is little chance for a regional level development of tourism. The small regions of Mezőcsát and Heves, which can build on their excellent accessibility, the vicinity of Lake Tisza and the thermal waters, are in the best position among them. The funds for tourism development may come almost exclusively from outside the regions. In the author's opinion, only isolated developments can be counted with. For the majority of the towns and villages in these small regions it is worth looking for other driving forces of development/growth.

In the small regions of Bátonyterenye, Pásztó, Szerencs, Edelény and Ózd 'tourism supply' and economic performance are both well below average. Tourist traffic is negligible as compared to the number of inhabitants, and processes of marginalisation have prevailed for many years. Apart from some exceptions (e.g. Edelény), no major tourism investments can be expected either from internal or external (private or public) sources. In the case of tourism developments, special attention is to be paid to satisfying the criteria of sustainability. The small region of Szerencs does not deserve to be among the laggards, its villages belonging to the Tokaj vine-growing region and the man-made and cultural heritage of Szerencs should justify tourism development. Development of the accommodation supply in the small region is also justified, particularly in the core area of the world heritage site. In the majority of the villages in the group it is difficult to justify the development of tourism; it is more expedient to look for factors of regional development/growth in other areas.

5. SUMMARY

Today there are a number of regional development and tourism development plans available both at regional and small regional levels. The existing documents show significant differences in their professional foundations, and the nature and accuracy of the objectives set. Although these documents are registered by VÁTI Magyar Regionális Fejlesztési és Urbanisztikai Nonprofit Korlátolt Felelősségű Társaság (Hungarian Regional and Urban Development Non-Profit Limited Company), it does not make them available in electronic form to the general public.

The Institute of Global and Regional Economics of the University of Miskolc has been collecting the planning documents involving the region of Northern Hungary in the 'REGISTAR' decision preparation support system of public administration since 2007 and makes them available to researchers and regional development experts. Currently only a small professional circle is well-informed about small region development conceptions, the realisation of which is hindered by the fact that they are not sufficiently known among the potential 'implementers'.

The realisation of small region development plans is accidental. The contents of small region action plans resemble brainstorming ideas rather than the registration of projects effectively implemented. The subsequent evaluation of plans 'implemented' does not take place in practice.

The planning documents of small region tourism development have led to the conclusion that small region concept plans, strategies or their objectives and priorities offer little information in their present forms to the (potential) parties involved. The exploration of tourism performance and the clear quantification of the objectives set are essential for efficient planning. The positioning of tourism performance can be assisted by placing the small regions on the destination lifecycle curve. Positioning (small) regions according to the dimensions of 'tourism supply' and 'economic activity' may contribute to formulating realisable and sustainable development directions.

In the region of Northern Hungary, 12 small regions have effective planning documents explicitly covering tourism development at present. In the other small regions, the objectives and conceptions relating to tourism have been included in documents under a variety of titles (strategic and operative, agrarian structure and rural development, convergence-development, economic development, complex development, rural development, integrated regional-rural development).

The examination of (tourism) development plans involving small regions has resulted in establishing that their contents, extent, professional foundations and objectives are extremely heterogeneous.

Table 2

Characteristics of the objectives of tourism development in small regions

Characteristics of objectives of tourism development	Small regions (given by their centres)
No specific indicators of the objectives are given.	Abaúj-hegyköz, Bátonyterenye, Füzesabony, Mezőcsát, Miskolc, Ózd, Pásztó, Rétság, Salgótarján, Szikszó, Tokaj
Partially determined specific indicators of the objectives are given	Mezőkövesd
The indicators of the objectives are not quantified	Bodrogköz, Edelény, Encs, Gyöngyös, Hatvan, Heves, Pétervására, Szerencs
Partially quantified indicators of the objectives are given	Balassagyarmat,
Accurately defined indicators of the objectives are given	Bélapátfalva, Eger, Kazincbarcika, Sárospatak, Sátoraljaújhely, Tiszaújváros

Source: author's own work based on the planning documents of the small regions

The majority determine the strategic objectives of tourism development on the basis of situation analyses and regional SWOT analyses. Specific programs are not formulated in every case, a clear formulation or quantification of the objectives is even less frequent (Table 2).

Analying the planning documents has led to the conclusion that their situation analysis parts are prepared from a specific internal point of view. It is typical that there are no comparisons with other regions. In the majority of cases the possible internal or external sources of the funds for the developments are not frankly presented.

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IMPOVERISHMENT IN NORTHERN HUNGARY

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1. INTRODUCTION

The economic transition initiated deep-going changes in Hungary. Changes in economic and social roles have accelerated, which affects the individuals' behaviour. The bulk of the society is able to meet the requirements related to the changing roles. In the societies of inequalities, however, there are always people who are not able to adapt themselves to these roles either because of their living conditions or because of their inherited cultural norms. These people are most endangered by social exclusion. If the ratio of these people in the population is too high, this endangers the proper functioning of the society and the economy.

My study examines how recent economic crisis and the related unfavourable economic features affect poverty in Northern Hungary. As economic crisis goes together with economic recession, I am trying to determine to what extent it influences poverty. My paper is trying to prove that economic recession contributes not only to the impoverishment of an important portion of the society, but also increases the rate of the poor and the depth of poverty significantly. If I fail to reject this, it is worth examining to what extent one percent economic growth or economic decline can decrease or increase the rate of the poor and the depth of poverty. Moreover, it is worth determining the main components mostly contributing to the decrease of the income level, the most important indicator of poverty. It is important to know what causes poverty, what the components representing the main risk factors of poverty are.

Changes going together with transition significantly modified the map of the country in terms of economic development, well-being and financial situation. In spite of its favourable geographical and natural potential, the performance of the Northern Hungarian region was very poor both in terms of economic and social progress. In spite of being one of the determinant industrial centres of the country in the 1980s, its economic performance decreased significantly after the transition. The volume of industrial production decreased by 35 to 40 percents in all the counties of the region (*Kaprosné* 1997).

After 1992, the most unfavourable year in the whole country, economic growth started in the region as well, but to a lower extent than the national average. Therefore it still has not managed to redeem its former position. In

spite of the favourable changes since 2000, Northern Hungary has been one of the poorest 10 regions of the European Union. Its economic position can be best characterized by GDP per capita. The relative position of each counties of the region has worsened considerably since 1990. The economic situation of the region did not improve either after 1994 in spite of the fact that in 1998 the regional increase rate of gross domestic product exceeded the national average. The significant increase of foreign investments was at the bottom of the temporary growth (*Tóth* 2003).

Values of per capita Gross Domestic Product in the counties of the Northern Hungarian region expressed as a percentage of the national average since 2000 can be seen in Figure 1. The figure highlights that the region has not managed to moderate its backlog either in this period. Neither the differences among the counties have decreased, which means that the position of Heves County is still the most favourable. In close relation to the economic backwardness, the unemployment rate is very high even in national comparison. Long term unemployment rate is also higher than the national average. The Roma population, which has the highest concentration in Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg, Heves and Nógrád Counties, was affected by losing jobs to the highest extent. One third of the whole population and two third of the Roma population lives in these counties (*Kemény* 2003).
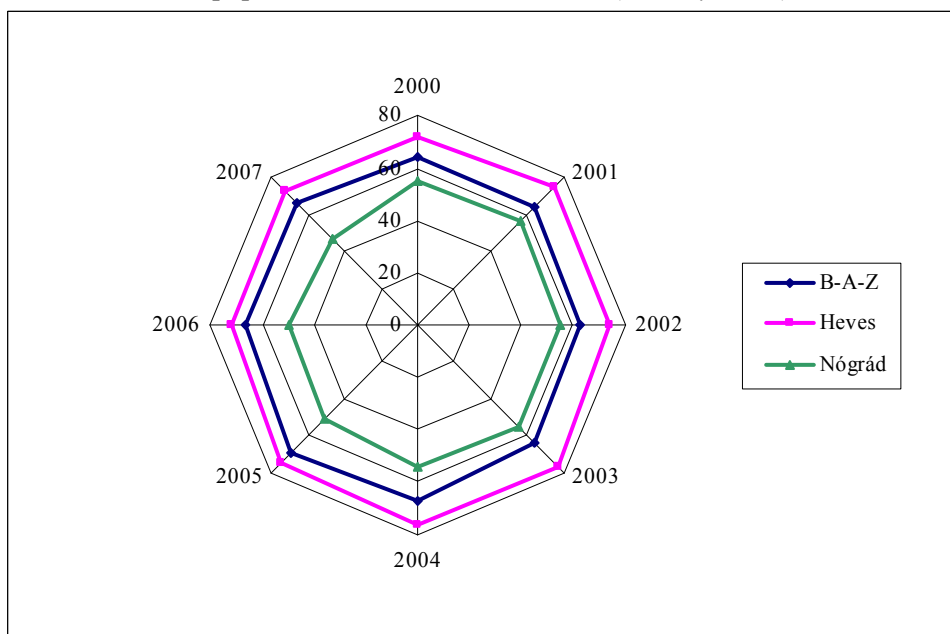
Figure 1
Gross domestic product as a percentage of the national average
Source: own compilation based on the database of the Hungarian
Central Statistical Office

The value of the investments also falls behind the national average and the ratio of foreign capital investment is also low in the region. In 1994, only three percent of the foreign enterprises working in Hungary operated in the counties of the Northern Hungarian region (*Kaprosné* 1997). There has been some positive change in the field of research and development, which is highly concentrated around some institutions (like the University of Miskolc, Bay Zoltán Applied Resource Foundation, ITDH, NORDA) (*Tóth Szita – Buday-Malik* 2006)

Subregions of Borsod-Abaúj-Zemplén County – except for that of Miskolc and Tiszaújváros – "stagnate" or "fall behind". Out of the traditional industrial areas of the county, Ózd and Putnok have become industrial crisis areas due to the degradation of metallurgy. This one-sided industrial structure is being transformed very slowly by the appearance of new industrial sectors and services (*Kaprosné* 2001). The part of the county bordered by Slovakia lacks industry and its infrastructure is underdeveloped. The position of South-Borsod and Tokaj-Hegyalja is more favourable where the structure of the economy is less one-sided (*Kaprosné* 1998).

The economy of Heves County is characterized by important local inequalities. The northern part of the county–Pétervására and its surrounding–is in crisis, but the middle of the county–the Eger-Gyöngyös-Hatvan line–is much more developed economically (*Tóth* 2003).

Within Nógrád County, the subregions of Salgótarján and Bátonyterenye can be considered crisis areas. The industrial crisis in Salgótarján had an effect on the subregion of Bátonyterenye as well because besides mining, it was the industry that ensured the subsistence of the population (*Kaprosné* 2001). The position of the further three subregions of the county is not favourable either. The subregion of Szécsény falls behind and the subregions of Balassagyarmat and Pásztó are stagnant. In the subregions of Szécsény and Balassagyarmat, agriculture plays an important role (*Tóth* 2003).

The performance of the region is even poorer in terms of social progress than based on the indicators of economic performance. In 2007 the activity rate was 50.3 percent in the region, while the national average was 54.9 percent. The average life expectancy at birth is also lower than the national average. It fell behind the national average by two years in the case of man, and by one year in the case of women. The position of Borsod-Abaúj-Zemplén County is the most unfavourable out of the counties of the region, where the average life expectancy is lower than the regional average by one year. Fertility rate, however, is higher than the national average. The most outstanding values can be found among very young mothers: the rate of those under 14 years is three times (0.3 %), and the rate of those between 15 and 19 years is twice (13.7 %) as high as the average of the country (*Tóth Szita – Buday-Malik* 2006). All of these also imply that those who found a family at a young age drop out of the

education system, do not get qualification and therefore are not able to support themselves and their families. Early founding of a family, which is much more typical in the county than in the country, is one of the main causes of poverty and deprivation.

2.   DEFINITION OF POVERTY

There is no exclusive definition for poverty. According to the most general definition, one is considered to be poor if (s)he does not have the minimal amount of money necessary to make ends meet, that is his/her income does not exceed a minimal level (*Bokor* 1987). Average income level of the Northern Hungarian region has been falling behind the national average since the beginning of the 1990s. Studies on the reasons for the regional wage differences concluded that they are based on the differences in the labour force composition and in the productivity of companies (*Munkaerőpiaci tükör* 2008). In the Northern Hungarian region, these are especially the settlements of Heves County (about half of the settlements) where the average income level exceeds the national average. The relative income position of people living here has increased since the first years of economic transition. The other extreme in the region is Borsod-Abaúj-Zemplén County, where the rate of the poor and impoverishing settlements (41%) is the highest (*Tóth* 2003).

Besides its monetary definition, there are multidimensional concepts of poverty as well. In this sense, deprivated is the person who is in an unfavourable position from different views, so handicaps are accumulated. Accumulated poverty and social exclusion are, however, not exactly the same things. In case of accumulated poverty, emphasis is put on the output, namely on the deprivation from certain goods and services. Exclusion, however, primarily focuses on the process leading to poverty (*Havasi* 2002). Complex view of poverty is important because deprivation is much more widespread if more dimensions are taken into consideration rather than define poverty by only one dimension (*Bokor* 1987).

3.   THE EFFECT OF ECONOMIC GROWTH ON POVERTY

Economists have long been debating about the relationship between economic growth and poverty. It is not known exactly how economic growth affects the conditions of the poor. It is obvious that faster economic growth goes together with faster poverty reduction, but experts have long been debating about the exact nature of the relationship between these two factors. If economic growth can significantly reduce poverty, strategies relying on economic growth to reduce poverty are probably justified (*Bourguignon* 2002).

In the 1970s many economists believed that economic growth is not enough to reduce poverty. In 1974 Chenerey and his staff found that growth has

benefit only to two persons out of three. (*Chenery et al.* 1974) Adelman and Morris had similar opinion. They said that economic growth reduces the income of the poor in absolute and relative terms as well. In this way those who live in extreme poverty were rather hurt than helped by economic development (*Adelman et al.* 1973). Ravallion (2009) drew the same conclusion. By analysing 100 developing countries he found out that conditional convergence, i.e. the growing advantage of starting from a lower development level, cannot be realized because of the high poverty rate.

In the evaluation of the theories about the relationship between poverty and economic growth Kuznets (1955) and his hypothesis played an important role. It says that the two variables are related in an inverted U-shaped curve. It means that in the early stages of economic growth income distribution worsens and it does not improve until countries reach middle-income status. At the beginning of economic growth income inequalities increase, which does not allow the improvement of the poor's conditions. Kuznets hypothesis was based on data derived from cross-sectional data and on theory. Later, economists started to use time series besides cross-sectional data to characterize that relationship.[1] All of these more recent studies tend to reject the Kuznets hypothesis. Empirical findings showed that economic development does not have any significant impact on income distribution (*Adams* 2003). Deininger and Squire (1996) found several countries where per capita gross domestic product (GDP) increased significantly while the value of Gini coefficients which is used to measure income inequalities hardly changed at all.

Later some new findings appeared that supposed a significant relationship between poverty and economic development. According to Dollar and Kray (2001), the average income of the poorest part of the society increases proportionately with average incomes. Their statement was based on an empirical research based on data from 92 countries for four decades. If we use the absolute concept of poverty – which supposes that the minimal need can be defined irrespectively of time and place and those who cannot satisfy these needs are considered to be poor – than let us suppose that economic development tends to improve the conditions of the poor as well. After a while – even without redistribution – they can cross the poverty line and get out of poverty. To some, it is suggested that "trickle down" can solve the problem in due course. In case of a developing country, however, it takes more than twenty years to be lifted out of poverty. (*Kanbur* 1987) Adams (2003) carried out a research based on 50 countries and found that economic development reduced poverty significantly as it has little or no impact on income inequality.

Given the results of previous studies (*Ravallion – Chen* 1996; *Adams* 2003) suggest that economic growth can reduce income inequalities and poverty in

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[1] Similar research was carried out by Ravallion; Deininger and Squire; Schultz; Brno, Ravallion and Squire

Eastern Europe, I hypothesize that economic growth has been negatively related to the rate of the poor and the depth of poverty in the Northern Hungarian region since 2000. Data are available between 2000 and 2007. In order to determine the effect of economic growth on poverty, the two factors have to be measured. This is possible in several ways.

4. MONETARY POVERTY

Figure 2 shows the per person base of personal income taxation in 2007 and its average change between 2000 and 2007 in the subregions of the Northern Hungarian region grouped by counties. There have been considerable differences within the region and the counties.
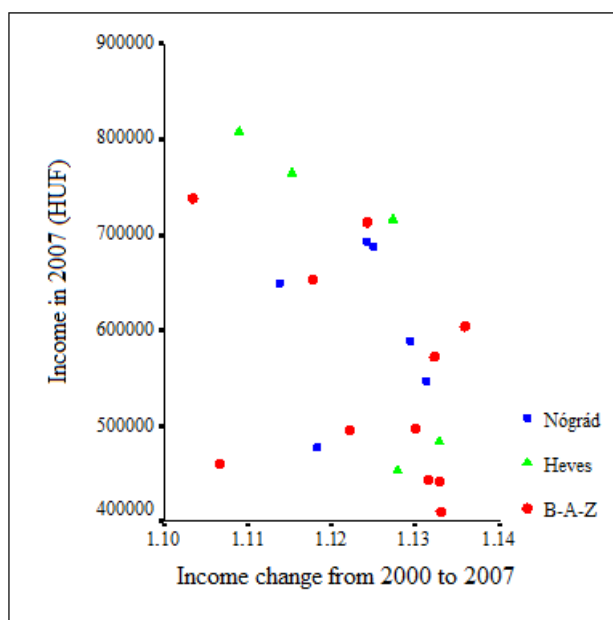
Figure 2
Distribution of the subregions of the Northern Hungarian region according to income changes from 2000 and 2007 and income level in 2007

Source: own compilation based on the database of the Hungarian Central Statistical Office

It is worth examining the top and the bottom of the distribution of subregions according to the income level: which are the subregions where the average income level of the population is high and has increased dynamically between 2000 and 2007 and which are the poorest ones where the average income position of the population worsened the most? The first group is mainly

made up of subregions of Heves County (subregions of Eger, Gyöngyös and Hatvan). The other group, the group of the poorest subregions that lag behind includes subregions in Borsod-Abaúj-Zemplén (subregions of Ózd, Edelény, Encs, Sátoraljaújhely, Szikszó), Heves (subregions of Heves and Pétervására) and Nógrád Counties (subregion of Szécsény) as well. There are changes compared to the beginning of the 1990s as some subregions in Borsod have started to close up to the regional average, except for the subregion of Ózd that increased its backwardness. In spite of the initial closing up, the performance of most of the subregions in Borsod-Abaúj-Zemplén County is still poor in terms of social and economic progress. The unemployment rate is high in these areas, and these subregions are recommended to agricultural rural development and to changes in their industrial structures (*Kocziszky* 2001). All these highlight that there are considerable income differences within the Northern Hungarian region. It also implies that a typical characteristic of poverty is segregation, that is the concentration of poverty on some subregions or some groups of settlements (*Tóth* 2003).

In order to measure and quantify poverty, it is necessary to exactly define it. Poors are those who live below the poverty line (*Bokor* 1987). Defining the poverty threshold is possible in several ways. The Hungarian Central Statistical Office defines poverty line as the subsistence level that is the amount of money necessary to satisfy the basic needs related to a minimal lifestyle. According to this opinion, poverty depends exclusively on the financial position. Using the subsistence level as the poverty threshold, it is possible to determine headcount index that is the rate of those living below the poverty line in the population (Figure 3).
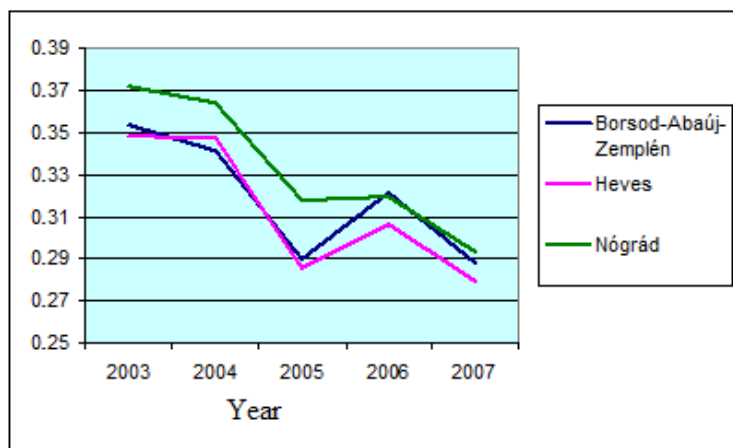
Figure 3
Headcount index in the counties of Northern Hungary, 2003-2007
Source: own compilation based on the database of APEH

Headcount index is the highest in Nógrád County, the direction and the extent of changes, however, is the same in all of the three counties. Headcount index decreased in the examined period, except for 2005-2006. Poverty rate was between 0.26 and 0.37 between 2000 and 2007, therefore about one third of taxpayers can be considered to be poor. The national headcount index was 0.3297 in 2004[2], which is lowest than the values in the Northern Hungarian region. It implies that the rate of poverty exceeds the national average in all of the counties of the region.

In studying poverty, not only the number and rate of those living below the poverty line are interesting, but also the extent to which they are poor, namely to what extent the average income of the poor falls behind the poverty line. This can be expressed by the depth of poverty that can be measured by the relative poverty gap. This is the distance of the average income of the poor from the poverty threshold, expressed as a percentage of the poverty line. The values of relative poverty gap can be seen in Figure 4. Between 2000 and 2007 there were important fluctuations in this poverty measure. Between 2000 and 2002 and between 2004 and 2006 it increased, otherwise it decreased. Depth of poverty decreases and poverty moderates when relative poverty gap also decreases, so poor persons were the least poor in 2003 and 2004. The depth of poverty changed to the same direction and to the same extent in all of the three counties.
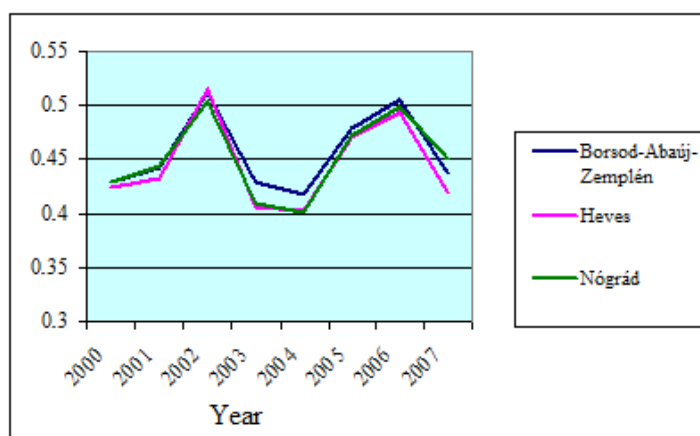
Figure 4
Relative poverty gap in the counties of Northern Hungary, 2003-2007
Source: own compilation based on the database of APEH

Measuring economic growth is also possible in several ways. Per capita GDP on purchasing power parity or per capita average income / average

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[2] PovcalNet database of World Bank

consumption are usually used to measure economic growth.[3] These two kinds of measures do not often agree. Differences are the result of the different definitions of the two measures. Average income and average consumption values come from household surveys, so they are usually highly correlated with household expenses. Per capita GDP and GNI values, however, are derived from national accounts, where household expenses are residuals. So any errors or omitted items in national accounts result in the deviation of household expenses. Measuring average income or average consumption can also have different results. People usually are not very keen on talking about their income and they tend to reject answering the questions related to their income level. According to a study made at the beginning of 1990s in Eastern Europe, average consumption level exceeds average income level in 82% of the cases (*Milanovic*, 1998). Many economists believe that data derived from national accounts are more accurate than the results of a representative survey, but Daeton (2001) believes that this is without any basis. In the analysis, real GDP per capita derived from national accounts and average income per capita derived from personal income taxation database are both used. As both data are published in current values, it is desirable to compensate for changes in the value of money – inflation or deflation.

The effect of economic growth on poverty can be described by graphs and regression analysis. Graphs can help in determining the trend of this effect. Figure 5 shows the relationship between income and headcount index, and Figure 6 describes the relationship between income and relative poverty gap. In determining poverty measures, subsistence level was used as poverty line. Figure 5 shows that there is a negative relationship between economic growth and headcount index as most of the observations (6 out of 9) lie in the upper right and the lower left quadrants.

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[3] In poverty analysis, per capita income or per capita consumption are used as a measure of economic growth by Kuznets (1955), Kanbur (1987), Kakwani (1993), Ravallion and Chen (1996), Bourguignon (2002). Per capita real GDP or GNI is used by Cashin (1995), Collier and Dollar (1999) and both measures are used by Adams (2003).
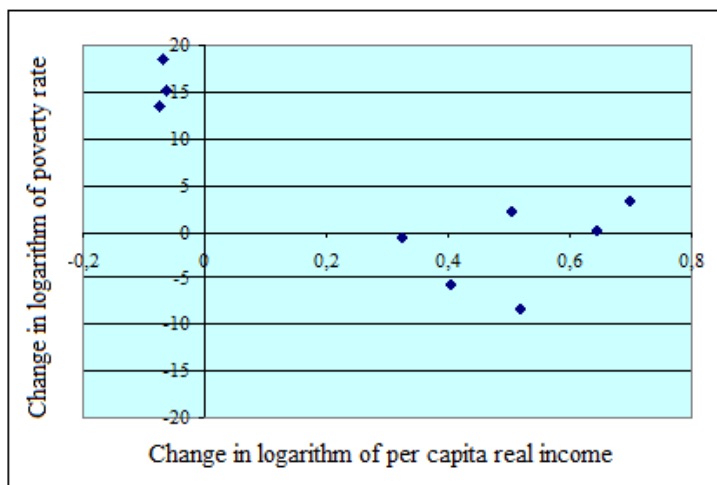
Figure 5
Relationship between economic growth and poverty (using income level to
measure economic growth and poverty rate to measure poverty)
Source: own compilation

The relationship between income and relative poverty gap is also negative
based on Figure 6 as six out of nine observations lie in the upper right and the
lower left quadrants. Based on graphs, increase in income level, that is
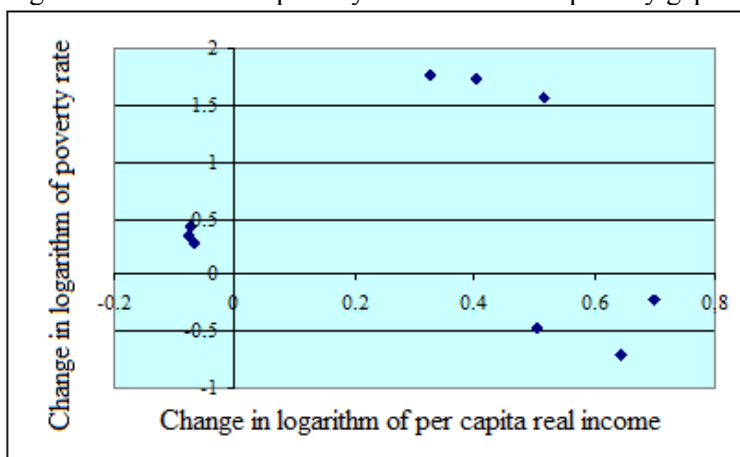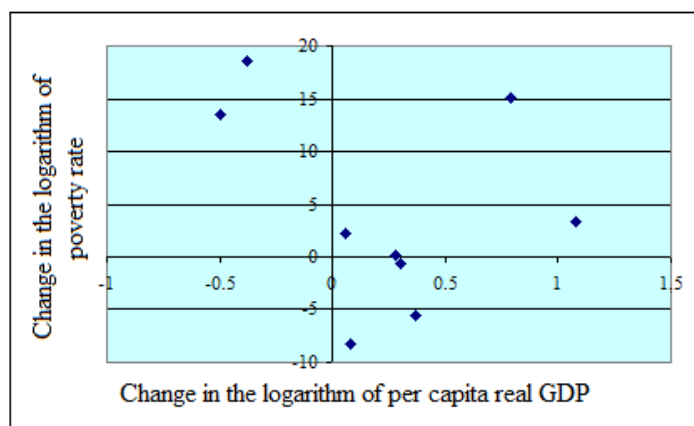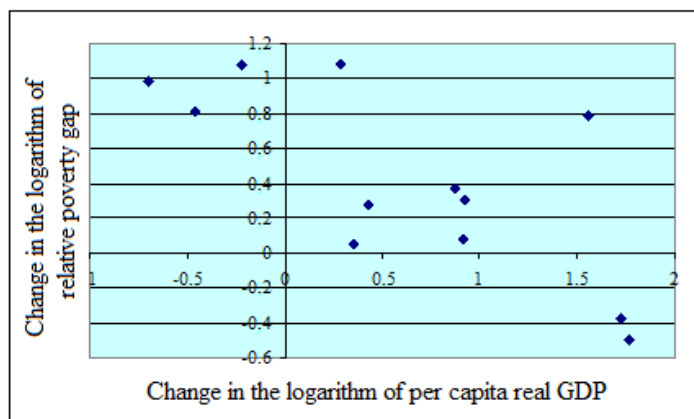economic growth reduces both poverty rate and relative poverty gap.

Figure 6
Relationship between economic growth and poverty (using income level to
measure economic growth and relative poverty gap to measure poverty)
Source: own compilation

Relationship between economic growth and poverty can also be described using per capita real GDP values to measure economic growth. Figure 7 shows the relationship between changes in per capita real GDP and changes in headcount index. Based on the distribution of the observations, the relationship is probably negative. Figure 8 represents the relationship between per capita real GDP and relative poverty gap. The distribution of the observations suggests that the relationship is negative again, even though most of the observations (7 out of 12) lie in the upper right quadrant.

Figure 7
Relationship between economic growth and poverty (using GDP to measure economic growth and poverty rate to measure poverty)

Source: own compilation

Figure 8
Relationship between economic growth and poverty (using GDP to measure economic growth and relative poverty gap to measure poverty)

Source: own compilation

In order to describe the relationship between economic growth and poverty exactly, the method of regression analysis is used. Poverty at country i at time t can be expressed in the following way *(Ravallion-Chen 1996)*:

$$lgP_{it} = \alpha_i + \beta \cdot lg\mu_{it}^* + \gamma \cdot t + \varepsilon_{it} \qquad (1)$$

where P is the measure of poverty in country i at time t, α_i is a fixed effect reflecting time differences between countries in distribution, β is the growth elasticity of poverty with respect to the given measure of economic growth given by μ_{it}^*, γ is trend rate of change over time t and ε_{it} is a white-noise error term that includes error in the poverty measure. It is not possible to observe the true mean μ_{it}^*, it is only feasible to observe the following estimate:

$$lg\mu_{it} = lg\mu_{it}^* + v_{it} \qquad (2)$$

where v_{it} is a country-specific, time-varying error term that is assumed to be white-noise. Using equation (2) equation (1) becomes:

$$lgP_{it} = \alpha_i + \beta \cdot lg\mu_{it} + \gamma \cdot t + \varepsilon_{it} - \beta \cdot v_{it} \qquad (3)$$

Taking first differences, α_i can be eliminated in order to obtain:

$$\Delta lgP_{it} = \gamma + \beta \cdot lg\mu_{it} + \Delta\varepsilon_{it} - \beta \cdot \Delta v_{it} \qquad (4)$$

Equation (4) is used to carry out the analysis. The optimal regression analysis is found by using the backward method. In the analysis, a 0.95 percent confidence level is applied. Parameters calculated based on equation (4) can be found in Table 1. It shows that increase in per capita average income and per capita real GDP reduce both the extent and the depth of poverty. The relationship, however, is not significant in all cases. Increase in average income level decreases poverty rate, while the increase of GDP decreases relative poverty gap.

Besides the direction of the relationship, the extent to which economic growth can reduce poverty is also important. This is expressed by the economic elasticity of poverty, that is the β parameter of the regression equation. Economic elasticity of poverty is different in case of average income and GDP. It is higher in case of GDP. A one percent increase in average income level decreases poverty rate by 2.4 percent, while a one percent growth in GDP decreases it by 4.9 percent. There are similar differences in the effect of economic growth on the depth of poverty. A 10 percent increase in real income decreases relative poverty gap by 4.5 percent. A 10 percent increase in real per capita GDP, however, decreases relative poverty gap by 10.9 percent. In the analysis of the effect of economic growth on the different poverty measures, it

is eye catching that the increase of average income decreases the more sensitive poverty measures (namely relative poverty gap) to the smaller extent. While a 10 percent increase of average income decreases headcount ratio by 24 percent, this decrease is only 4.5 percent in the case of relative poverty gap.

Table 1
Economic elasticity of poverty

Measures of economic growth	Trend (γ)	Growth elasticity (β)	R^2
Average income / expenditure			
Poverty rate	11.944 (4.000)	-2.408 (-3.511)[*]	0.,799
Relative poverty gap	0.671 (1.362)	-0.454 (-0.401)	0.022
GDP (PPP) per capita			
Poverty rate	5.358 (1.486)	-4.904 (-0.716)	0.068
Relative poverty gap	1.071 (4.842)	-1.094 (-3.285)[*]	0.519

[*] correlation is significant at the 0.05 level

Source: own computation

I can conclude that economic growth decreases the rate and the depth of poverty. So I fail to reject the initial hypothesis. It implies that recent economic recession results in negative social phenomena like the increase in the number of the poor or the deepening of poverty. Based on the forecast of changes in GDP for 2010 and 2011, changes of poverty can also be forecasted.

Table 2
Change in poverty rate and poverty gap in 2010 and 2011

Quarter	*Change in GDP (%)*[*]	*Change in poverty rate (%)*	*Change in relative poverty gap (%)*
2010. II.	-0.99	4.83	1.08
2010. III.	0.98	-4.83	-1.08
2010. IV.	2.29	-11.22	-2.50
2011. I.	3.08	-15.13	-3.37
2011. II.	3.43	-16.84	-3.76
2011. III.	3.58	-17.54	-3.91
2011. IV.	3.66	-17.94	-4.00

[*] Source: Report on inflation. February 24, 2010
Source: own computation

Table 2 shows that poverty rate is increasing in the second quarter of 2010 by almost 5 percent. From the second half of the year, however, poverty rate will be decreasing. In 2011 it will decrease by 15 to 18 percent quarterly. Relative poverty gap is increasing only by 1 percent in the second quarter of 2010 and it is also decreasing from the second half of the year. In 2011 it will fall by 3 to 4 percent quarterly.

Poverty as a multidimensional concept

Multidimensional concept of poverty–which takes into account not only income, but other dimensions of well-being as well–can be analyzed using primary and secondary data. Statistical data can be used to define which factors influence poverty formally. Besides, it is also important to analyze subjective poverty assessment. It is possible that subjective assessment is different from the official one. Therefore it is worth examining multidimensional concept of poverty based on statistical data on the one hand, and based on asking members of the population on the other.

Statistical components of poverty

Studies on poverty using statistical data usually defines age, education attainment, unemployment, ethnicity and living conditions as the most important risk factors of poverty (Gábor – Szivós 2002). I define the most important determinants of poverty in Northern Hungary using the method of multiple regression analysis. The dependent variable is the average subregional

value of per capita income base of personal income taxation. The box plot figure of personal income tax base at subregional level is shown in Figure 9. It highlights that the mean income is the lowest in the subregions of Borsod-Abaúj-Zemplén County. The dispersion of income, however, is the highest in this county, which means that there are subregions with high income level – like that of Tiszaújváros or Miskolc – in this county as well.
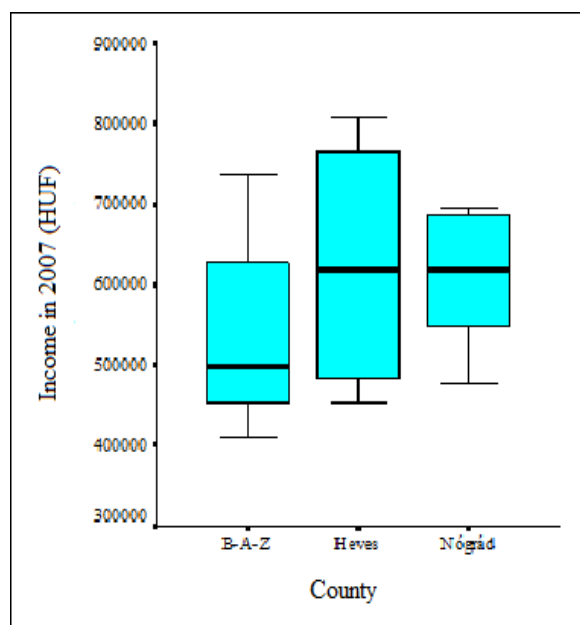

Figure 9

Box plot of personal income tax base income per person in the counties of
Northern Hungary

Source: own compilation

Explanatory variables of the regression analysis are based on the work of Gábor and Szivós (2002):
- average education attainment;
- rate of the unemployed (the number of registered unemployed per unit of overall labour force);
- long term unemployment rate (percentage of those who are unemployed for more than 180 days in the overall labour force);
- average floor-space of constructed dwellings (m^2);
- rate of population older than 60 that expresses the rate of the old (I use 60 years as a limit because the Hungarian Central Statistical Office provides data at subregional level using this limit);
- rate of large families (rate of married couples, consensual partners, mothers with child(ren) and fathers with child(ren) bringing up three or

more children to the total number of families).

Average education attainment expresses the effect of education. The average floor-space of constructed dwellings is an indicator of residence type and of residence poverty. Besides including the rate of the unemployed, it is worth examining long term unemployment rate as well, because long term (lasting for more than 180 days) unemployment has more severe consequences both on the individual and on the society. The rate of unemployed includes also the seasonally unemployed persons, so it considers people being without a job for only some weeks because of changing workplace to be unemployed. In such cases, however, the subculture of poverty does not take shape and it does not mean the decrease of living standard either. Long term unemployed, however, often cannot integrate to the society and to the labour market and their living standard and well-being usually decrease.

Regression analysis is first carried out for the period 2000 to 2007, then for the years 2001, 2004 and 2007 separately. To do so, the Regional Statistics database of the Hungarian Central Statistical Office is used. Before regression analysis, it is necessary to test multicollinearity to determine if there are any linear relations among the explanatory variables. It can occur between the rate of the unemployed and the long term unemployment rate or between the rate of the unemployed and the average education attainment. As it worsens the quality of information gained from the regression model, multicollinearity is crucially important to be tested. The significance of multicollinearity can be tested with χ^2 test. Using the correlation matrix of the independent variables, the value of χ^2 is 0.9452. This is lower than the $\chi^2 = 25$ critical value at the 0.05 level. Therefore the linear relation among the explanatory variables cannot be considered significant, so each independent variable can be included in the regression analysis. I use backward method to carry out the analysis. This method is suitable to determine the independent variables that are significantly related to the dependent variable – the per capita average income.

The regression analysis carried out for the Northern Hungarian region reveals that two variables have significant effect on the per capita personal income tax base. These are average education attainment and average floor-space of dwellings. The partial regression coefficients of Table 3 show that both variables are directly related to income level. The increase of average education attainment or average floor-space of dwellings increases the income and therefore reduces poverty. As for the region as a whole, these two variables have significant effect. There are, however, important differences among the counties of the region. In Borsod-Abaúj-Zemplén County, results are the same than in the region. Average education attainment and average floor-space of constructed dwellings affect income level significantly. The relationship is positive is both cases. In Heves and Nógrád Counties, however, more variables have significant effect on income level. Besides average education attainment and average floor-space of constructed dwellings, long term unemployment

rate, the rate of the old population and the rate of large families play an important role in the variation of income level. All three variables are negatively related to income level. The higher the long term unemployment rate, the rate of the old population and the rate of large families, the lower the average income level. Bringing up many children means an important risk factor of poverty. Poverty risk had become extremely high by the new millennium. Poverty rate increased to 25 percent from the previous 13 percent among the families bringing up three or more children (Gábor – Szivós 2002).

Table 3
Partial regression coefficients in Northern Hungary and in its counties

	Northern Hungary	*Borsod-Abaúj-Zemplén*	*Heves*	*Nógrád*
Constant	-832,418	-597,639	-4,022,597	321,960.4
Average education attainment	111,315.1	70,910.8	358,463.5	17,986.6
Rate of the unemployed	-	-	-	-
Long term unemployment rate	-	-	-98,637.4	-1,068.3
Average floor-space of constructed dwellings	1,522.022	2,634.1	5,711.2	6,430.2
Rate of the old	-	-	-5,524.9	-16,121.3
Rate of large families	-	-	-2,167,914	-1,626,327

Source: own computation

I carried out the regression analysis for some years separately so that potential changes over time can be revealed. Results are shown in Table 4. The first year that I examined was 2001. Due to the census, data are available for all variables for this year. The average floor-space of constructed dwellings and the average education attainment had significant effect on income level. The analysis carried out at the county level shows that these two components play an important risk factor of poverty in each counties of the region. Besides, long term unemployment rate, the rate of the old population and the rate of large families had a significant effect on income level in Heves and Nógrád Counties. In Borsod-Abaúj-Zemplén County, however, these latter variables did not contribute to the decrease of income level significantly.

The next year that I examined is 2004. For this year, there are no available

data for average education attainment and for the rate of large families, so it is possible to examine the effect of the other four variables only. At regional level, unemployment and old age had significant effect on income level. There are slight differences among the counties of the region. Unemployment decreases income level in all counties. Besides, old age is significant in Borsod-Abaúj-Zemplén County and long term unemployment rate is an important risk factor of poverty in Nógrád County.

The last examined year is 2007. Data are missing for average education attainment and for the rate of large families for this year as well, so it is possible to analyse the effect of the other variables only. At regional level, unemployment and old age had significant effect on income level. Similarly to the results of the previous years, the results of Borsod-Abaúj-Zemplén County are the same as in the region. In Nógrád County, however, long term unemployment also had a significant effect on poverty. In Heves County, long term unemployment is the only variable that affects income level significantly.

Examining the changes in the effects of the independent variables, I can conclude that not appropriate living conditions were related to poverty at the beginning of the examined period. In 2004 and 2007 these were not any more important risk factors of poverty. Housing stock of the region was in accordance with the ratio of the region's population at country level in 1998. The housing stock in the region made up of the 12.4 percent and the population in the region made up of the 12.6 percent of the country. In spite of this, less new dwellings were constructed in the region between 1990 and 1998 in the region (5.4 percent of all the dwellings) than the national average (6.1 percent) (*Tóth* 2003). The rate of dwellings constructed in the period 2000 to 2007 exceeds the regional average in the subregions of Encs, Sárospatak, Sátoraljaújhely, Tiszaújváros, Eger, Füzesabony and Balassagyarmat. Many of these subregions are among the poorest ones in the region based on their income level. The subregions of Ózd, Pétervására and Bátonyterenye have the lowest rates of dwellings constructed between 2000 and 2007. By the second half of the examined period, housing conditions had been less related to income level. Old age as a risk factor was present only in Heves and Nógrád Counties at the beginning of the period, but it became an important factor of poverty in the whole region in the second part of the period. The increasing rate of the old population and the decrease of the employed population will probably worsen the income position of the old in the future.

Table 4

Factors affecting poverty significantly in 2001, 2004 and 2007 in the Northern Hungarian region and in the counties of the region

	Northern Hungary		Borsod-Abaúj-Zemplén		Heves		Nógrád	
	variable	coefficient (t)	variable	coefficient (t)	variable	coefficient (t)	variable	coefficient (t)
2001	- average floor-space of constructed dwellings - average education attainment	1,522.022 (3.115) 111,315 (8.715)	- average floor-space of constructed dwellings - average education attainment	1,522 (3.115) 111,315 (8.715)	- average floor-space of constructed dwellings - long term unemployment rate - rate of the population older than 60 - average education attainment - rate of large families	5,711.2 -98,637.8 -5,524.9 358,463 -2,167,914	- average floor-space of constructed dwellings - long term unemployment rate - rate of the population older than 60 - average education attainment - rate of large families	6,430.2 -1,068.3 -16,121.3 17,986.6 -1,626,327
2004	- rate of the unemployed - rate of the population older than 60	-19,736 (-7.788) -19,289.1 (3.438)	- rate of the unemployed - rate of the population older than 60	-20,447 (-9.803) -31,756 (-5.571)	- rate of the unemployed	-33,580 (-4.474)	- rate of the unemployed - long term unemployment rate	-8,0154.1 (-3.000) -96,413 (2.543)
2007	- rate of the unemployed - rate of the population older than 60	-25,250.3 (-7.882) -16,241.2 (-2.413)	- rate of the unemployed - rate of the population older than 60	-30,328.8 (-11.534) -39,669.5 (-5.434)	- long term unemployment rate	-43,055.9 (-4.319)	- rate of the unemployed - long term unemployment rate - rate of the population older than 60	-295,013 (-3.458) -331,151 (3.176) -120,350 (3.058)

Source: own calculation

Unemployment and long term unemployment also played an important role in the changes of the income level. The unemployment rate is higher and the employment rate is lower in the Northern Hungarian region than the national average. Unemployment data are the most favourable in Heves County as they fall behind the national average only by several percent. The most unfavourable data can be found in Borsod-Abaúj-Zemplén County, where the unemployment rate has exceeded the national average by at least 4 percent each year since 1990. Figure 10 shows the unemployment rate at county level between 1998 and 2009. In all the three counties of the region, the unemployment rate decreased between the beginning of the 1990s and 2001-2002. Since then, however, it has been continuously increasing. By 2009, the position of Nógrád County had worsened, and had reached the same unemployment rate level than Borsod-Abaúj-Zemplén.
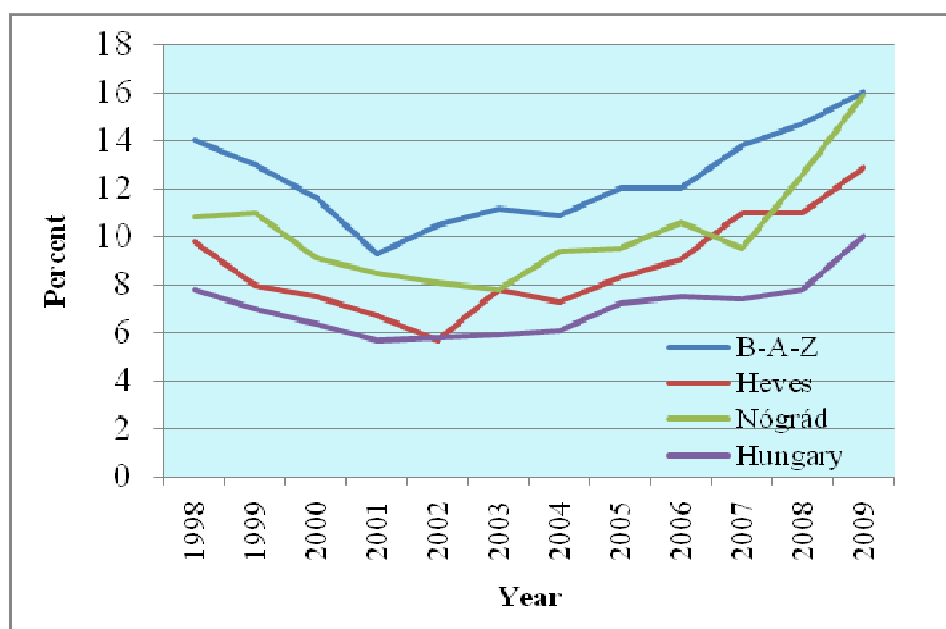
Figure 10
Unemployment rate, 1998-2009

Source: own compilation based on the database of the Hungarian Central Statistical Office

Long term unemployment is affected by environmental, interest and other factors (like the low level of education attainment, qualification, renewal ability and low work ethic) (*Lórántné – Simkó* 2001). The effect of long term unemployment rate on poverty is extremely important. Lack of employment decreases consumption, which threatens the work of service sector and keeps

worsening employment measures and increases unemployment (*Kocziszky* 2001). Long term unemployment can have multiple effects on individuals and on families. The lack of an income in a family's budget worsens living standards of the family. Besides, the position of breadwinner can also change, which can lead to conflicts and to the change of roles and communication within the family. Unemployment can make the self image of the individual change as well. His / Her self esteem may worsen, (s)he may feel that (s)he is not "good" enough to find a job (*Darók* 2006). Long term unemployment can also cause different health problems, like cardiovascular diseases. For the period of unemployment, the individual is separated from the labour market and get out of the habit of daily routine. If this status lasts for long, (s)he will find it even more difficult to reintegrate herself / himself to the labour market later. Unemployment can also have the consequence of illegal work in order to make up a living (*Darók* 2006). This type of employment is very common in Northern Hungary in spite of the fact that it has many unfavourable effects on the individual. The lack of labour contract enables that employers make use of the employees' services, and the years spent with illegal work do not entitle to sick-leave and pension either (*Darók* 2006).

The effect of education attainment can only be examined in 2001 because of the lack of data in the other years. In 2001 its effect was significant in each county. In 1990 average education attainment was below 8th grade in many subregions (in the subregions of Encs, Edelény and Szikszó in Borsod-Abaúj-Zemplén County, in the subregions of Heves and Pétervására in Heves County and in the subregion of Szécsény is Nógrád County). By 2001, however, it was more than 8th grade in each subregion. Average education attainment is the lowest in the subregions where the unemployment rate has the highest values. The highest average education attainment can be found in the subregions of Eger, Miskolc and Salgótarján. Besides average education attainment, the number of pupils per thousand inhabitants can also be a useful indicator of the education level of the labour force. The value of it was 40 in the region in 2001, which is slightly less the national average (41). There are, however, significant differences within the region – in Nógrád County the number of pupils per thousand inhabitants is only 33. Values exceeding the regional average can be found in the towns of county rank and the traditional school towns, while values below the average are in the subregions of Pétervására, Füzesabony and Edelény (*Tóth* 2003). An interesting data is that the ratio of college and university student between 20 and 24 years is the highest in the Nortern Hungarian region at the country level (*KSH* 2000). Therefore the problem in the region is not with the ratio of student in higher education, but with the outflow of the professional classes. Because of the lack of attractive working opportunities, less and less people choose to stay in the region. As a result, the ratio of professional among 25 years old is not favourable at the country level (*Kaprosné* 1997).

5. SUBJECTIVE ASSESSMENT OF POVERTY

In the evaluation of poverty, it is crucially important to determine what members of the population think about it. Official statistics and data collections define the poor population exactly, but it is possible that people who are considered to be poor by the members of the population are not classified as such in official statistics and most of the people who are classified to be poor are not considered to be indeed poor by the population.

According to a survey carried out in 2007, poverty is mainly a monetary term, and low income level is the main reason for it. Subsistence level, an indicator of objective poverty coincides with subjective poverty assessment for income level. People in the region therefore believes that amount of money equal to the subsistence level insures the satisfaction of minimal needs. Poverty, however, cannot be caused only by monetary indigence, but many other factors can contribute to it. Members of the population believe that entitlement to social support, unemployment, Roma descent, large family, low education attainment and alcoholism are most related to poverty besides low income level.

People think that the majority of large families are considered to be poor because of the high number of children, if they bring up more than 3 or 4 children. The education level under which the majority of people can be considered to be poor because of their low education attainment is between 8th grade and with professional qualification without general certificate.

Old age can also contribute to poverty. As for old age, the age over which the majority of people can be considered to be poor because of their age is between 54 and 69. Besides factors listed above, early founding of family is also an important risk factor of poverty. In the case of men, people believe that the age under which founding a family results in poverty in most of the cases is between 19 and 22. In the case of women, this age is between 18 and 21. Early founding of family is a very important problem in Northern Hungary as the fertility rates of those under 14 years and between 15 and 19 years are higher than the national average (*Tóth Szita – Buday-Malik* 2006). This implies that those who found a family at a young age drop out of the system of education, do not get qualification and therefore are not able to support themselves and their families. People also believe that not appropriate living conditions and low level of comfort can also contribute to poverty. The level of comfort under which the majority of people is considered to be poor is between 'dwellings without comfort' and 'dwellings with part of amenities'.

An interesting characteristic of subjective assessment of poverty is that while alcoholism is considered to be highly correlated with poverty, smoking is not considered to be a risk factor of poverty. The reason for the different judgments of the two phenomena can be that – in spite of the fact that both mean addiction – alcoholism leads to mental degradation as well, which can

result in the appearance of other poverty components like unemployment or illness.

According to the opinion of the population, poverty and social exclusion have the highest probability in the case of individuals and families where the above listed risk factors are accumulated. Subjective assessment of poverty, therefore, is similar to the results of the official statistics. The position of the individuals in the system of inequalities is regarded in the same way, and on the basis of the same factors than in the official statistics.

6. CONCLUSION

Economic transition initiated deep-going changes in Hungary, which have fundamentally changed the territorial inequalities of economic development, well being and financial position within the country. The economic performance of the Northern Hungarian region, which was considered to be one of the determinant industrial centres in the 1980s, decreased dramatically after the change of regime. The region still has not managed to come out of this unfavourable position. Poverty rate in the region exceeds the national level. In Hungary the segregation of the poor is typically concentrated in particular villages or groups of villages. This phenomenon is particularly typical in the region of Northern Hungary. The situation of villages and small regions lagging behind is becoming increasingly unfavourable.

Economic growth plays a major role in the eradication of poverty as economic growth (measured either in terms of changes in real income, or in those of real GDP) is able to moderate poverty considerably in two respects. As a result of economic growth, the rate of people living under the poverty line decreases, and the depth of poverty also decreases. Today, however, the opposite of these favourable tendencies is prevalent: accordingly, the economic recession that can be seen since September 2008 has also contributed to an increase in poverty in addition to its many other negative consequences. Owing to the economic recession, the rate of the poor is expected to increase and so is the depth of poverty. Taking into account the expected indicators of economic recession, from the second half of 2010 the process of the increase in poverty can probably be stopped with an improvement in the economic situation.

Poverty does not only mean the lack of the necessary income. It has several other risk factors in the region. Low income level is associated with high rate of the unemployed, high long term unemployment rate, backwardness of the living area, low education attainment and high rate of the old. The unemployment rate and the long term unemployment rate exceed the national average in the region. In the subregions suffering from high unemployment rates, the average education attainment is extremely low. In spite of the fact that the rate of students among the 20-24 years old population is extremely high in the region, the population keeping ability of the region is very low. Emigration is the

highest among the professional classes, which decreases the average qualification level of the labour force considerably.

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STATEMENTS CONCERNING BUSINESS CONSULTANTS IN BORSOD-ABAÚJ-ZEMPLÉN COUNTY

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1. INTRODUCE

The Institute of Business Sciences of the University of Miskolc has made a survey of business consultants firms and enterprises using consultations, enterprises not using consultations, but planning to do so and those not using and not planning to use any consultations both in 2001 and in 2005-06 as well. [1] [2] [3] [4] In this paper I demonstrate my statements concerning business consultants in Borsod-Abaúj-Zemplén County.

2. RESEARCH METHODOLOGY

The questionnaire which serves as the basis of the empirical research was phrased with the integration of lessons to be learnt from previous foreign surveys known from the literature. [5] [6] [7] An important aspect of structuring the questionnaire was to shed light on different question from several points of view, increasing the reliability of the results and consequences to be drawn based on the answers. Empirical research consisted of two major parts.

The aim was to make up an evaluable, 300 member sample of enterprises located in Borsod-Abaúj-Zemplén County. Based on the experiences we had from previous surveys an approximately 50% response rate can be achieved by personal contact to enterprises. This is why we chose 600 enterprises[1] from the 2000/12 and 2005 editions of Cegtar (Enterprise Catalogue – from the enterprises registered by registry-court, as active enterprises located in B-A-Z County), and visited them personally. Surveyed enterprises were chosen based on the fields of activities, considering the shares of geographical locations with a random sampling method. This way, we managed to receive 362 responses in 2001 and 294 in 2005-06. Response rate was 60.3% in 2001 and 49% in 2005-06. Because of the variation in responses service sector is slightly under- while industry and trade slightly over-represented, but the difference is not significant and follows the ratios in the region well.

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[1] 3,5% of all active enterprises in B-A-Z County.
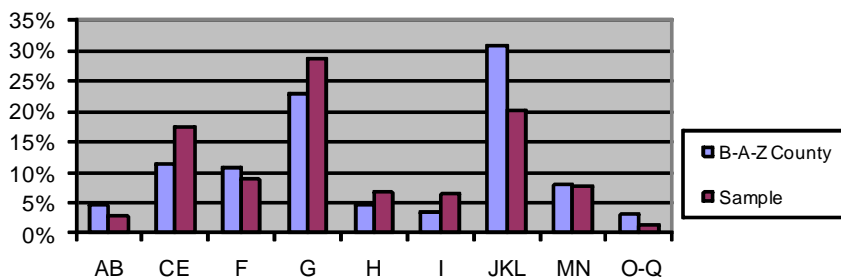
Source: ksh, own construction

A,B	Agriculture, hunting, forestry and fishing	I	Transport, storage, post and telecommunications
C-E	Mining and quarrying; manufacturing; electricity, gas, steam and water supply;	J,K,L	Financial intermediation; real estate, renting and business activities;
F	Construction	M,N	Education, health and social welfare
G	Trade, repair of motor vehicles, motorcycles and personal and household goods;	O-Q	other community, social and personal service activities
H	Hotels and restaurants;		

Figure 1

The composition of the sample and enterprises located in B-A-Z country according to their fields of activities in 2005

Third part of the companies (39% in 2001 and 31% in 2005-06) have already made use of business consulting, tenth part of the companies (11% in 2001 and 12% in 2005) haven't but they plan to make use of business consulting, the biggest part: half of them (50% in 2001 and 57% in 2005) haven't and don't plan to make use of business consulting. It is important to distinguish between the 3 groups since the first group has got experience with business consulting so they evaluate this service according to that. We can analyse the expectations of the second group and prejudices of the third one.

The rate of answer was higher among larger companies than smaller one, so larger companies are over represented:
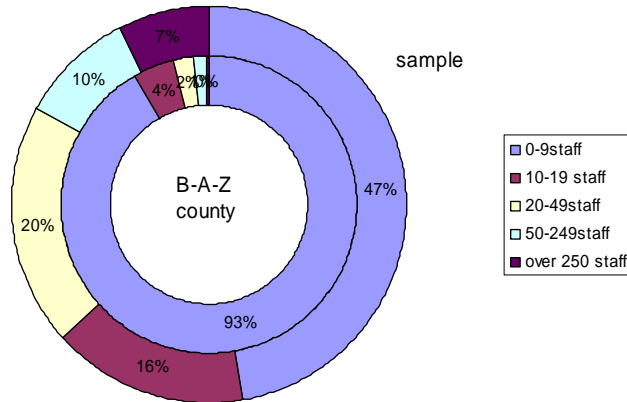
Figure 2

Distribution of the companies in B-A-Z county and examined companies by staff in 2005-06

Source: ksh, own construction

47% of the examined companies are micro-enterprises (0-9 staff), 36% small enterprises (10-49 staff), 10% medium size enterprises (50-249), 7% big companies. Over representation is justified, because larger companies can better afford hiring consulting companies than smaller one.

In both years we made a full-scale survey of management consultants which were registered under the TEÁOR number 7414 „management consulting" in Borsod-Abaúj-Zemplén County. In December 2000 199 management consultants were registered in our County, while in 2005 222, we visited all of them. 83 of the registered consultants agreed to fill in the questionnaire in 2001, while in 2005 88 of them. Response rate was lower than in case of the enterprises, it was only approximately 40% (41.7% in 2001 while 39.6% in 2005-06). 5 years ago the rate of phantom companies was outstandingly large: 36%. In the year 2006 we found significantly fewer phantom companies (10%), the activity of consultants is clearer. 4% of the companies were founded as a consulting company, and their main activity is "business consulting" according to the National Companies' Database, but they don't deal with this activity yet.

I used the software package SPSS 14.0 for analysing the database from the survey. I tested my hypotheses by cross-table analysis (independence analysis), variance-analysis and correlation analysis, by the 5% significance level generally accepted in social sciences.

3. STATEMENTS CONCERNING BUSINESS CONSULTANTS IN BORSOD-ABAÚJ-ZEMPLÉN COUNTY

The hypotheses regarding the *consultants* can be tested by the representative survey of consultants. The analysis can be supplemented by the survey of those entrepreneurs who applied consultancy services. The experiences of the surveys can be

compared, and any differences in evaluations can be analysed. Hypotheses H1 is based on the special situation of the county, so can only be understood for small consultants: *H1/a Smaller, more flexible consultants who know local environment better are able to satisfy local needs to a higher extent than large companies do; H1/b When choosing the consultant, the complexity of the offered service, personal relationships and deadlines are the most important factors, while advertisements, nationality, and size are less important in the value systems of customers. Consultants adjust their behaviour to this.* The hypothesis can be tasted by applying variance-analysis, which will strengthen it.

   H1/a hypothesis can be accepted with conditions, based on the variance-analysis. As only 9% of the surveyed enterprises contacted multinational consultant companies ever, the survey cannot be applied to generalize our statements. 99% of the surveyed enterprises contacted only small- or medium sized consultants, so for this sized consultant-enterprises we are able to draw general conclusions: Smaller, more flexible consultants who know local environment better are able to satisfy local needs.
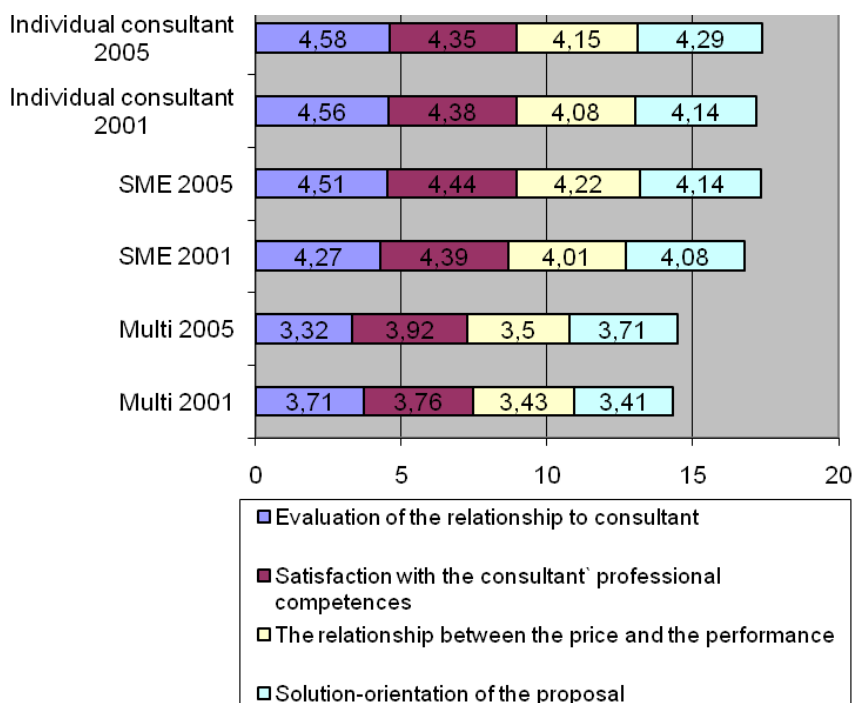
Figure 3
Evaluation of the consultant and the applied service
Source: own construction

According to entrepreneurs, smaller, local consultants are able to construct personal, good relationships to their customers (on a 5 steps Likert scale 4.5), while multinational companies are less accessible (3.3).

Entrepreneurs are satisfied with the competences of smaller consultants competences (on a 5 step scale, smaller consultants received 4.4 points, while their larger counterparts 3.9). According to them, smaller consultants are able to deliver a high quality service on well-defined fields, and are able to adjust to special local needs to a higher extent.

Smaller consultants are able to deliver high quality services, adjusted to special local needs on well-defined fields, at a significantly lower price level, than what larger firms supply. They regard the relationship between pricing and performance much more favourably, even though they are fully satisfied with it (in case of small consultants, 4.2 points were given, while large ones received 3.5).

The judgement on the solution-orientation of the proposal is similar to that on pricing-performance relation: proposals made by multinational consultants are more general, (3.7), while smaller consultants` proposals are usually easier to apply in practice (on a five steps Likert scale 4.1).

When choosing the consultant, the complexity of the offered service, personal relationships and deadlines are the most important factors, while advertisements, nationality, and size are less important in the value systems of customers (figure 4):
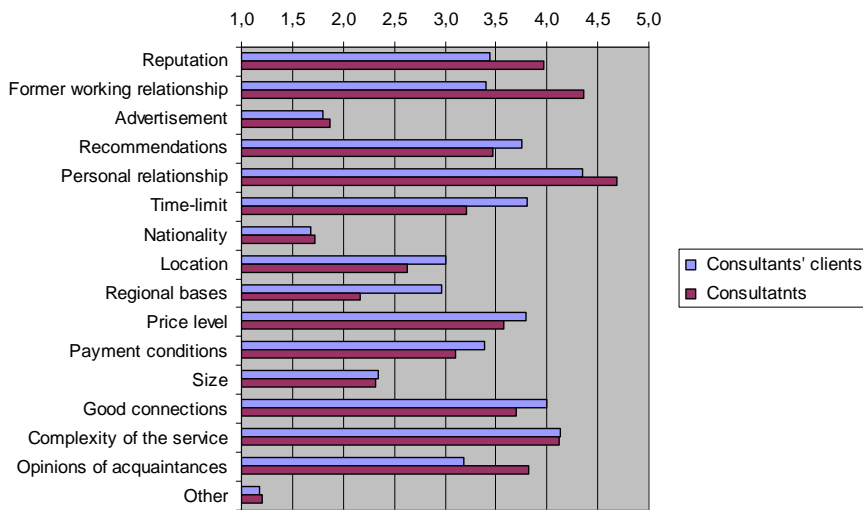

Figure 4
Important factors in choosing a consultant, 2005-06

Source: own construction

Consultants judged the relevance of factors for choosing their company generally right; only some (significant) differences can be tracked. Consultants over-estimated the relevance of the consultant's reputation, previous work-experiences, personal networks and the opinions of acquaintances in choosing their firms as a partner. They underestimated the relevance of deadlines and regional offices significantly. The

difference is not large, on a 5 step Likert scale it is lower than 1 point. In case of the other factors (advertisements of the consultant, reference list, nationality, regional headquarter, price level, favourable payment conditions, size of the consultant, its network, complexity of the offered services) no significant difference can be tracked between the value systems of entrepreneurs and consultants, applying the usual 5% significance level. Consultants were able to judge the relevance of these factors right.

4. CONSULTANTS' COMPETENCES

The questionnaire was phrased in a way which enables us to compare its results with the foreign surveys standing at our disposal: I used the 21 criteria on the characteristics of management consultants accomplished in 1999 for a representative study of a sample of 623 German top-managers[2]. For testing my second hypothesis, according to which "*there are significant regional differences among management consultants*", – defining regional level for countries – I used a one sample t probe, in which test values were given according to German experiences. Based on the results of the test H2 hypothesis can be rejected. H3 hypothesis was constructed supposing that in the time period between the two surveys, 2001 and 2005-06 management consultants competences in Borsod-Abaúj-Zemplén County followed the same pattern Germans did according to the opinions of entrepreneurs: *Besides communication competences, changing, adjustment and adoption willingness, conflict-treatment and team-spirit of the consultants` competences will also be strengthened, besides cost-benefit aspects, project aspects will become more and more important." The significance of the consultants` age and place in hierarchy will decrease.* After testing this hypothesis with variance-analysis, H3 was rejected. No significant regional difference can be found in the competences of management consultants according to the value systems of entrepreneurs. (Figure 5) Competences of consultants did not change significantly in the last five years. (Figure 6)

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[2] Frank Höselbarth (2000): Veränderungsbereitschaft als Methode, Managementberater 2000. März
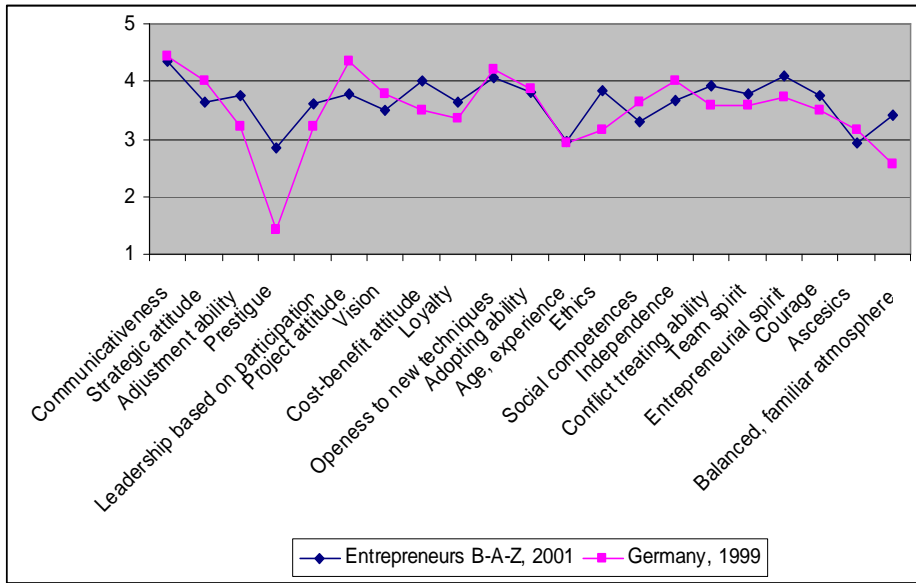
Figure 5
Competences of consultants in B-A-Z County and in Germany
Source: Frank Höselbarth (2000), own construction

In case of 5 out of the 21 analysed criteria (communication ability, openness to information technologies; ability to change; the age and experience of the consultants, in favour of the older persons; ascesis) there was no significant difference between the competences of German and Hungarian consultants, testing with a one-sample t probe, on the 5% significance level according to Hungarian entrepreneurs. In case of 13 criteria (strategic attitude; adjustment abilities; leadership based on participation and cooperation; project attitude; vision; cost-benefit attitudes; loyalty; social competencies; independence; ability to treat conflicts; team-spirit; courage) differences are lower than 0.5 on a 5 step Likert-Scale. In case of two criteria the difference is lower than 1 (Level of Ethics was 0.7, while familiar, balanced atmosphere for Hungarian consultants was 0.8 points higher ranked by Hungarian entrepreneurs than the ranks German consultants were given by German entrepreneurs). The difference was larger than 1 in case of only one criteria, prestige-based leadership is more characteristics for Hungarians (the difference is +1.4), but this is the least typical characteristic of consultants in both countries.

Figure 6 shows the consultants' competences according to the value systems of entrepreneurs in 2001 and 2005:
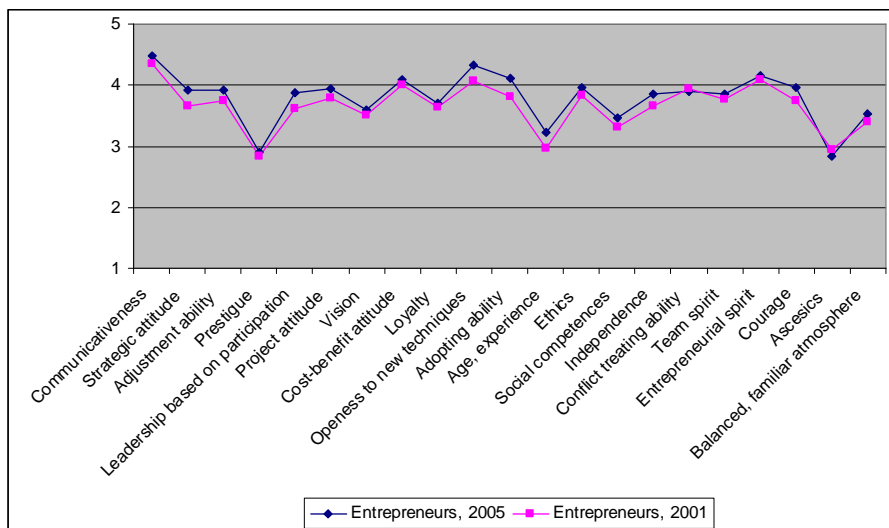
Figure 6
Competences of consultants according to entrepreneurs

Source: own construction

Weaker than average relationship can be found between the following variables at the usual 5% significance level in Borsod-Abaúj-Zemplén County:

- In 2005-06, according to the entrepreneurs, strategic attitude was less characteristic for consultants (on a 5 steps Likert scale by 0.3, Sig=2.2%).
- Leadership based on cooperation improved by a small extent (on a 5 steps Likert scale by 0.3, Sig=5%).
- Openness of consultants to information technologies improved to a small extent (on a 5 steps Likert scale by 0.3, Sig=3.7%).
- Adoptability competences of entrepreneurs improved to a small extent as well (on a 5 steps Likert scale by 0.3, Sig=1.4%).

5. CONCLUSION

In this paper I demonstrated my statements concerning business consultants in Borsod-Abaúj-Zemplén County based on our representative surveys in 2001 and 2005-06.

Smaller, more flexible consultants who know local environment better are able to satisfy local needs.

When choosing the consultant, the complexity of the offered service, personal relationships and deadlines are the most important factors, while advertisements, nationality, and size are less important in the value systems of customers.

No significant regional difference can be found in the competences of management consultants according to the value systems of entrepreneurs. Characteristics of consultants did not change significantly in the last five years.

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PRODUCTION POTENTIAL AS ECONOMIC CATEGORY

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1.   ABSTRACT

In the article theoretical and methodological bases of term are investigational «production potential». On the basis of the detailed analysis of existent determinations of this term author determination of category is given «production potential», principles and constituents of his forming are certain

A term «potential» is used for denotation of facilities, supplies and sources, which are present in a presence and that can be used for achievement of certain goal, decision of some task, and also possibilities of individual, society, state, in some area. Forming and development of production potential takes place under act of objective factors of every separate country: volume of territory, structure of population, development of state institutes, natural resources, national features. These factors are the long-term vectors of development of production potential and basis of his competitiveness. Globalization of world economic processes results in growth of role and variant of production structures as a result of passing to the innovative model of development of production potential.

Production potential it is followed to examine as a system of economic relations, which arises up between being in charge subjects on different levels concerning the receipt of maximally possible production result which can be got at the most effective use of production resources, at the present level of technique and technologies, front-rank forms. It is thus necessary to distinguish production potential of national economy as aggregate of economic relations between the independent being in charge subjects of all patterns of ownership, incorporated within the framework of national economy economic copulas and community of interests in relation to the receipt of income.
The problems of forming and development of production potential of industrial enterprise collect global meaningfulness in the conditions of market relations, as an enterprise is the that subject of menage, where the factors of production with the purpose of creation of material welfares are directly combined, to realize here the market jurisdictions. An enterprise, converting during a production cycle entrance resources into the finished good, creates, and to increase folk riches, forms the national income of society, level of welfare and quality of life of population. Production potential of industrial enterprise is the difficult system, in investigation what complications of forming of the proper category

mechanism are, as there are economic researches mainly examine the separate elements of potential (funds, labor, informative, financial resources), not forming here the paradigm of development and management problems by him at the level of industry and enterprise.

Production potential of enterprise is the many-sided system of resources of production, which are in intercommunication and in interdependence. The use of system features of potential allows to define the pattern of production and directions of its perfection, which provide practical realization of not only possibilities of elements of potential but also effects, their co-operations which considerably increase due to integration productive ability of economic link at the unchanging or limited volume of resources.
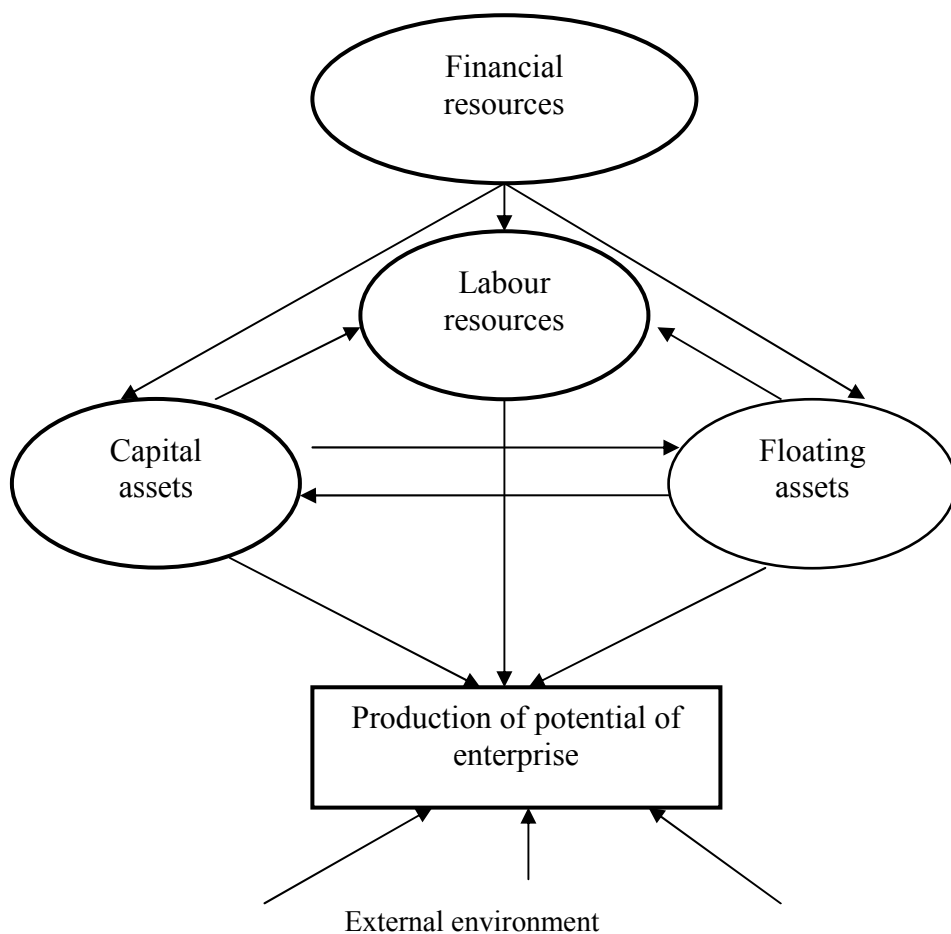
Figure 1
The Resource constituents of production potential of enterprise

A role and value of production potential of enterprise in a public production does not remain unchanging. Production potential of industrial enterprise is financial pre-condition of acceleration of scientific and technical progress. Than higher technical and economic level of elements of potential and degree of their use, the more mightily financial and technical base of scientific and technical progress, the wider horizons of introduction of his achievements, more possibilities for perfection and jumbo zing of elements of production potential of industrial enterprise. They perfect mutually, and develop each other. Thus production potential of industrial enterprise is directly related to the rates of socio-economic development of area, area and entire country. The improvement of his use is instrumental in growth of production of investment resources and commodities of folk consumption at the the same charges of public labour. And his high-quality descriptions are determined by the degree of satisfaction of financial and spiritual necessities of people and quality of the economy and social growing.

Production potential of enterprise is formed his possibilities at socio-economic activity, thus not only realized but also unrealized from any reasons. It should be noted that at certain rich in content filling of category «production potential of enterprise» most researches give advantage «resource» approach. From one side, it is fully justified, as an aggregate of labor, financial, financial and informative resources, which take part in the process of production of goods, services, is taken into account, creation of blessings.

Financial resources of enterprise – it, geared-up for a start in a production process. It is possible in their composition, in same queue, to select the followings elements: raw material, capital and circulating assets, fuel, purchasing ready-to-cook foods, container, spare parts, for permanent repair and other

That part of population, which owns necessary physical, behaves to the labor resources, by knowledges and skills of labour in the proper industry.

An important value has the «resource» understanding of production potential for realization of basic directions of activity of enterprise (marketing, production, investment, innovative, commercial activity), however enables him comprehensive description. Such approach is limited by the value of production potential, as determination of essence of this economic category is erected or to the aggregate, or as to ability of enterprise to produce the certain volume of competitive products.

The founder of research of concept «production potential» is Anchishkin, which included for him «production resources, their volume, structure, technical level and quality», which in the process of production grow into the factors of production. Accordingly, the basic task of management production potential consists in the optimum distributing and use of resources with the purpose of achievement of the greatest indexes. The greatest performance of industrial

enterprise indicators it, foremost, realization of ultimate goals of activity and strategies of development of being in charge subject.

In the aspect of production potential essence of resources opens up not only from positions of their presence and possibility of the use but also from positions of expedience of their application, utility, narrow-mindedness, and others like that.

In the aggregate of resources select the followings elements:

- technical resources (production capacities and their features, equipments, materials, and ò. other);

- technological resources (technologies, presence of competitive ideas, scientific developments and other);

- skilled resources (qualifying, demographic composition of workers, their aspiring to know ledges and perfection, intellectual capital);

- spatial resources (character of shop floors and territory of enterprise, location of objects of the real estate, communications, possibility of expansion and other);

- informative resources (amount and quality of information about an internal and external environment, dustings of its distribution, possibility of expansion and increase of authenticity of informative base, and ò. other);

- resources of organizational structure of control system (character and flexibility of the sensor-based system, speed of passing of managing influences and other);

- financial resources (presence and sufficient ness of property and loan asset, state of assets, liquidity, presence of credit lines).

Abalkin considers that production potential is the generalized description of resources which take part in a production. Such level of working of question of determination of resource staples of the production system and their complex co-operation affects high-quality pre-conditions of planning, and more deep research of this problem is basis of determination and drawing on internal reserves, and consequently, increase of efficiency of functioning economic production systems.

Lately noticeable growth of interest is to optimization of volumes of in-use financial, machine resources and resources of time in a strategic prospect.

Thus, as a conceptual model of organization of economic processes, it is possible to assume that forming of results (*D*) of the planned process on the whole will be described the function of kind:

$$D = R^{Af(t)} \cdot F^{Bf(t)} \cdot S^{Cf(t)},$$

where *R, F* - is a volume of the attracted production and financial resources; *t* - is duration of process; *S* - is efficiency of the planned process depending on the moment of his realization; *A, B, C* - are indexes which characterize the size of translation of the used resources in a result.

Developing determination, which is given in economic cybernetics «Production potential of some technological system is characterized by its ability to convert resources which act for it. He is estimated or for intensities of output of this system or for Zhamoyda acknowledges the leading role of production potential separate factors co-operation of which in the system provides the receipt of this output» at forming of competitive edges of enterprise of His research enable to define production potential as aggregates of obvious and hidden possibilities in form backlogs for the conquest of maximal fate of market, maintenance of it, during great while at the maximally high indexes of efficiency of the use of all constituents.

At the statistical estimation of the use of production potential a production and realization of products volume comes forward in quality a summarizing sign. Consequently, row of researchers by the characterizing element of category «production potential of enterprise» is acknowledged production capacity. Such interpretation is characteristic for structural approach. Yes, Slizhis marks that for expression of economic and production potentials there is «one index – production of blessings volume... maximally possible». Donets' and Zharov also accented attention on determination of size of production potential facilities of determination of production capacity. In their opinion, the first «after the quantitative value can be less than or even (only in theory) the production capacity of the production system of this territory, so as is a production capacity, corrected limitations by other constituents of production potential (presence of labor, power and financial resources)». Donets' is counted by production potential and suggests the synonym of production capacity of enterprise to determine him as the annual is «maximally possible, day's, sentinel or attributed to other to temporal unit volume of output of products».

Apparent defects of such narrowed interpretation of category are «production potential» Zhamoydoy is marked [8]. Determining a production capacity one with a base index in a complex which represents the level of the use of resource factors and size of production potential, notices at the same time, that production possibilities of enterprises far higher intensities of their use. The presence of backlogs of production capacity has negative economic consequences: overstating of specific prime price, so as immobilization appears de bene esse permanent charges in composition a prime price. In connection with under loading of powers enterprises it will be been constantly to decide the task of the use of not in-use equipment. Certain researches interpret «production potential» as aggregate of factors or elements of production. In particular, Gerasimchuk, Blacksmith's, Shershneva interpret potential as maximal possibility of object of functioning taking into account the factors of influence by the rational use of all types of resources for achievement of potential aims. From the that point of view «production potential» has two values at least:

1. Real manufacturability's: presence of factors of production, material well-being of him by the most important financial, natural, power, intellectual, labor resources.

2. Real volume of products, which can produce an enterprise in the case of the complete use of present resources.

Probing problems of determination of category «production potential of enterprise» after such signs, as: aggregate of resources, aggregate of factors of production, effective use of production capacity, in a complex it is followed to mark with the purpose of achievement of maximal result, that production potential (enterprises) on the whole can not be measured the simple sum of elements.

Summarizing the resource, structural, having a special purpose and cost going near determination of essence of production potential it is possible to characterize production potential of enterprise as possibility of being in charge subject at the terms of progressiveness of administrative mechanism and introduction of achievements scientifically – technical progress to use the aggregate of present and reserve resources for achievement of proof position at the market and decision of tasks of strategic development.
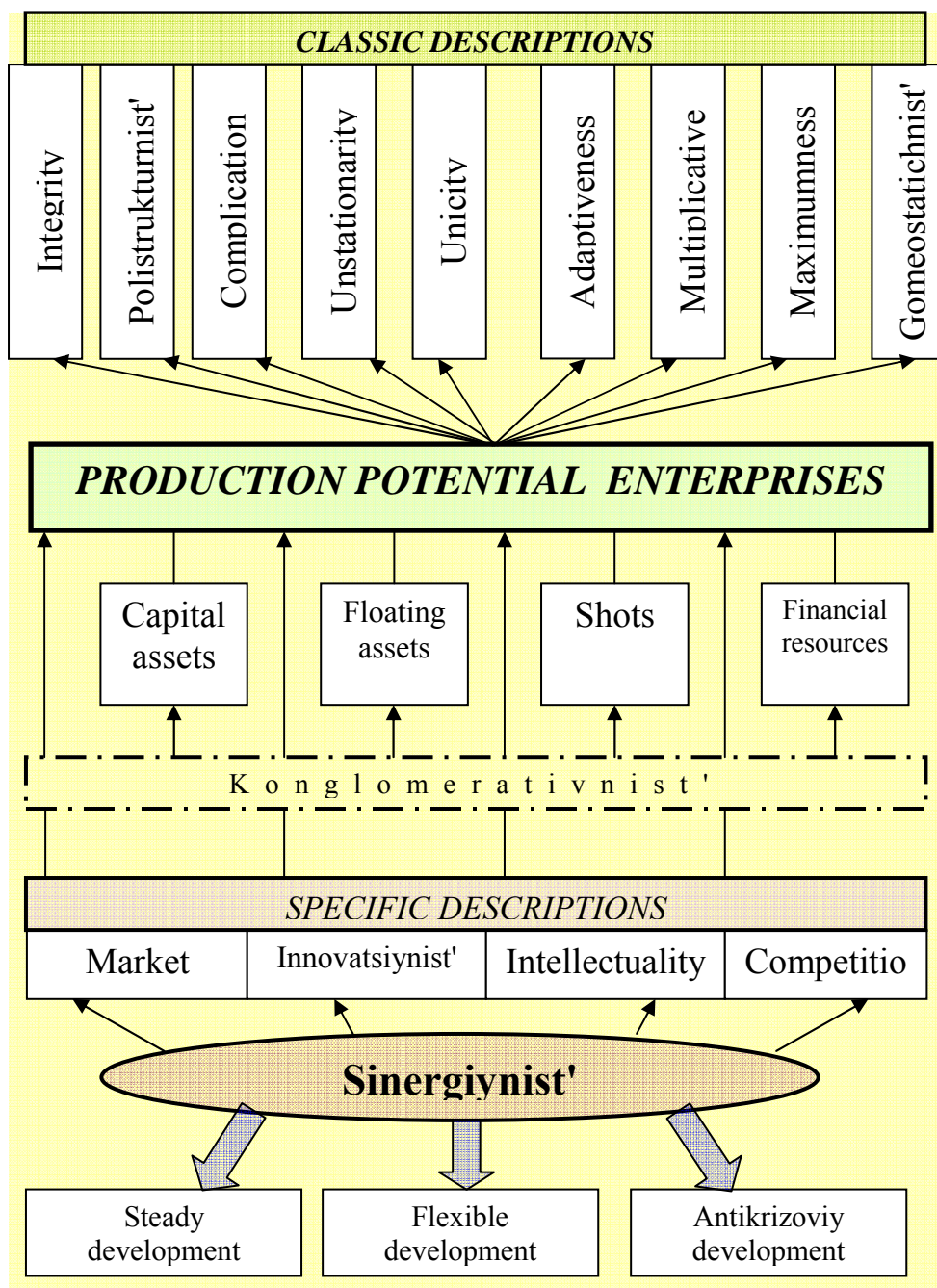
Figure 2
A model of forming of results of activity of enterprise is on the base of
synthesis of descriptions and principles of combination of constituents of
production potential

Taking into account complication of production potential and variety of executable by him functions, it is necessary to mark that flexibility of enterprise is determined the far of internal and external factors, each of which renders specific influence on his capacity for adaptation. It is possible to select ability of potential to react on changing of parameters of raw material and materials, on changing structurally technological descriptions of products and its production volumes. Besides possibilities of production potential depend on the capacity of his elements for independent development, from mobility of connections between them, from a reaction on influences of external market environment.

Production potential is the base element of process of creation of products and basis of functioning of industrial enterprise. Being the difficult system of different functionality elements of financial and immaterial character production potential directly influences and, in same queue, depends on the stage of life cycle of enterprise. There is prevention of origin of the stages of «senescence» and «liquidation» of enterprise in this sense basic tasks development of production potential. To attain it possibly at the terms of effective development of production potential on the whole and his constituents, taking into account their value on those or the stages of development of enterprise.

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MODERN CONSISTING AND PROSPECTS OF DEVELOPMENT OF LEGAL PROVIDING OF INNOVATIVE ACTIVITY IS OF UKRAINE

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1.   ABSTRACT

In the article the considered questions of the modern state of the legal providing of government control of innovative activity are on enterprises and in organizations. The detailed analysis of basic laws of Ukraine is done in this sphere, found out them basic failings and suggestions are developed on their removal.

A modern situation, from point of the legal providing of innovative activity in Ukraine, is characterized absence of the single methodological going near creation of necessary legislative base. Operating legislative acts do not almost take into account really existent economic and social terms, the legal adjusting in the field of innovative activity does not have complex character. Mostly legislative acts related to the normative-legal adjusting of innovative activity are uncoordinated between itself and, the general determine though, of most principle positions, however regulate innovative activity as logical innovative process, directed on the acceleration of economic development of Ukraine.

Normative-legal acts which regulate innovative activity in Ukraine it is possible de bene esse to subdivide into general and special. General normative acts determine basic strategic principles of realization of innovative activity in Ukraine. Initial legal pre-conditions of public innovative policy are stopped up in Constitution of Ukraine. So, article 54 avouches for citizens freedom scientific and technical, and also other types of creation, defense of intellectual property and copyrights. It is certain in the same article, that the state assists development of science, becoming of international scientific connections. Article 116 Constitutions of Ukraine are obligated by Cabinet of Ministers of Ukraine to provide realization of policy in the field of education, science and culture concertedly with other directions economic activity. Pursuant to a point 4 this article Cabinet of Ministers of Ukraine develops and carries out the national programs of economic, scientific and technical, social and cultural development of Ukraine. Except for Constitution of Ukraine, general norms in relation to innovative activity were contained in Law of Ukraine of «O bases of public policy in the field of science and scientific and technical activity», from Decembers, 13, 1991. In December, 1998 this law got the name of Law of Ukraine «About scientific and scientific and technical activity». This legislative

act determines the aims of public policy in scientific and scientific and technical activity, sets basic principles and directions of government control and management an innovative sphere, determines forms and methods of influence of the state on development of scientific and technical sphere. Foremost, it touches the financial and credit and tax levers of adjusting, use of facilities of the programmatic-having a special purpose planning and prognostication, forming of the government, scientific and scientific and technical programs, government order on a scientific and technical production, supports of functioning of the system of scientific and technical information. Foreseen also, that the state provides the budgetary financing of scientific and scientific and technical activity (except for charges on a defensive) in a size an about 2% GDP of Ukraine. Unfortunately, this norm so was not put in an operation. The real volumes of charges were and there is the considerably less set border, that results in gradual destruction of domestic scientific and technical potential.

A next normative act which determines general principles of realization of innovative activity is «Conception of scientific-technological and innovative development of Ukraine», approved Verkhovna Rada of Ukraine by Decision from July, 13 of 1999 years. The necessity of development of to engulf all sides public innovative policy is marked in Conception. Thus, an obligatory condition is creation of the proper legal field for its realization, including development of methods of stimulation of innovative activity of enterprises. Primary objectives are certain in this Conception also, including priority directions and principles of public scientific and technical policy resource providing of its realization, mechanisms of speed-up innovative development, directions of the structural forming of scientific and technical potential. Conception postulates principles of mutual relations between the state and subjects of scientific and scientific and technical activity, which are based on the necessity of priority state support of science, technologies and innovations as sources of the economy growing, component part of national culture, education and sphere of realization of intellectual potential of citizens. The action of Conception is counted on the period of stabilizing of economy and achievement by it parameters of its steady development.

During the concentration of existing in the state resources on support of competitive industries of scientific-technological progress power must follow Law of Ukraine «On priority directions innovative activity in Ukraine» from January, 16, 2003. The indexes of such concentration are:

> • volume of innovative capital investments in relation to the annual level of depreciation decrees;
> • size of profit from innovative capital investments for a year in relation to the volume of innovative capital investments;
> • size of the combined financing of development of scitech in relation to annual GDP;
> • volume of sale the products accrued during a year in relation to the

general annual volume of sale;
• amount of inventions on a 1 million population;
• amount worked inventions in a year in relation to their general amount.

The purpose of this Law is not only a concentration of resources of the state on leading directions of scientific-technological update of production and sphere of services in a country but also providing of internal market competition with a large scientific constituent products and output with this products to the world market. Priority directions innovative activity must be determined as scientifically, economic and socially grounded. Concrete priority directions innovative activity must be fixed legislatively and directed on providing of necessities of society in highly technological competitive, environmentally clean products, high-quality services and increase of export potential of the state.

The special normative-legal acts which regulate innovative activity are laws and after a law acts, regulative relations in the field of realization of concrete innovative activity. To them it is possible to take foremost, Law of Ukraine of «O of innovative activity» from July, 4, 2002. In accordance with this law innovative is activity which is directed on the use and commercialization of results of scientific research-and-developments and predetermines placing to the market of new competitive commodities and services. That the action of law does not spread on all stages of life cycle of innovations.

The determination of innovative activity offered in this law engulfs only finishing part of innovative cycle, namely the stages «introduction is a production - consumption». The use and commercialization of results of scientific research-and-developments is the intermediate and eventual link of chain of innovative cycle which the read-through of research-and-developments are preceded. The legal adjusting of the first links of innovative cycle is a «origin - development of new know ledges» is carried out Law of Ukraine «On scientific and scientific and technical activity» from Decembers, 1, 1998, which foreseen, that scientific and technical activity is intellectual creative activity, directed on a receipt and use of new know ledges in all industries of technique and technologies. The basic forms of scientific and technical activity are research, experimental and designer, project-designer, technological, searching and project-searching works, making of pre-production models or parties of scientific and technical production, and also other works, related to taking of scientific and scientific and technical know ledges to the stage of their practical use.

On formulation of concept «Innovative activity» in Law of Ukraine of «O of innovative activity» the Law of Ukraine of «O of investment activity» provisions influenced from Septembers, 18 in 1991 years, where innovative activity is examined as one of forms of investment activity which is carried out

with the purpose of applying of achievements of scientific and technical progress in industry and social sphere.

At the end of 1990th by basic applicants on embodiment in life of priorities of innovative policy technological parks become in Ukraine. It was assumed that most questions of introduction of market mechanisms, development of the applied research-and-developments, expansion of participation of small and middle business in scientific and technical and innovative development will decide preeminently by technological parks. Technological parks must were open a road other organizational forms of innovative activity and, above all things, technological policies and business incubators.

So, legislative and normative acts on questions of support of innovative structures appeared in Ukraine in beginning of 1990th. on Octobers, 13 in 1992 years Law of Ukraine of «O was accepted general principles of creation and functioning of the special (free) economic areas», in which the special (free) economic area was determined as part of territory of Ukraine on which set and operates the dedicated legal mode of economic activity and order of application and action of legislation of Ukraine. On territory of the special (free) economic area the favorable custom are entered, currency-financial, tax and other terms of economic activity of national and foreign legal and physical entities. A technological park was certain this law as one of types of the special (free) economic areas.

Order of President of Ukraine from April, 16, 1999 - №84/99, determined technological parks as structures the tasks of which is an association of scientific researches, development of new technologies with applying in industry and issue of competitive on internal and external markets highly technological products.

In the «Conception of scientific-technological and innovative development of Ukraine» mentioned higher, by the basic tasks of creation of technological parks as bases of infrastructure of innovative development are certain:
• maintenances in the conditions of passing to the market economy of scientific and technical potential of Ukraine and his use for the decision of issues of the day of industrial production and agriculture, overcoming of the crisis phenomena in economic and social development of country;
• assistance the transition of domestic industry on the innovative way of development; development, applying in industry and issue of highly technological **with a large scientific constituent** products, for providing of competitiveness of products and services of domestic production on world and internal markets, that must assist the increase of export potential of Ukraine and decline of dependence on an import;
• bringing in of internal and external investments in a scientific and technical sphere.

The basic legislative act of Ukraine, regulative activity of technological parks, is Law of Ukraine «On the dedicated mode of innovative activity of

technological parks» from January, 12, 2006 In this law there are positions in relation to the features of creation of the dedicated mode of innovative activity, establishment of tax and custom deductions, and also grant of state support, stimulation of activity of technological parks, their participants, associated and joint companies which execute innovative projects on priority directions scientific and technical activity.

Really the technological parks of Ukraine began to execute investment and innovative projects in 2000 years. For today through Verkhovna Rada of Ukraine 15 technological parks from which only 8 opened out certain activity are conducted. It is «Institute of single-crystals», «Institute of the electric welding the name of Å. O. of Patona», «Semiconductor technologies and materials, optical electronics and sensory technique», «Uglemash», «Institute of technical thermal physics», «Kievan polytechnical», «Ukrinfotekh», «Intellectual information technologies». From the transferred technological parks most actively the first function four. Each of technological parks has the specific and orientation activity.

The analysis of quadrennial activity of technological parks shows high effectiveness of implementation of innovative projects technological parks, created on the basis of «Institute of the electric welding the name of Patona» and «Institute of single-crystals» of NAN of Ukraine. Estimation of activity of other technological parks is very contradictory. Certainly, in the conditions of low level of technological modernization of production on the whole and low indexes of innovative activity of enterprises, technological parks, aimed at high-tech, creation of competitive at world level products, must were become the primary base of the new Ukrainian technological platform and to deserve every kind support of the state. But, unfortunately, the special legislation on technological parks appeared oriented mainly to the large scientific and technical complexes as their founders and innovative projects as a basic form of innovative activity. It limited the purview of this law substantially.

Examining the legal adjusting of innovative activity in Ukraine, the special attention it is necessary to spare Law of Ukraine «On scientific and scientific and technical examination» from February, 10, 1995, which determines legal, organizational and financial frameworks of expert activity in a scientific and technical sphere, and also general bases and principles of adjusting of public relations during organization and lead through of expert activity. Preeminently scientific and scientific and technical examination subsumes a project innovative, that entails state support as a direct state financing or tax and other privileges.

Scientific and scientific and technical examination is activity, the purpose of which is research, verification, analysis and estimation of scientific and technical level of objects of examination and preparation of the grounded conclusions for making decision in relation to such objects. Scientific and scientific and technical examination in the field of scientific and technical

developments and **experimental and designer** works, fundamental and applied researches, including stage of their practical application (introduction, use, analysis of consequences of the use), conducted research organizations and establishments, by higher educational establishments, other organizations and single and physical entities which are accredited on this type of activity.

The basic tasks of scientific and scientific and technical examination is:

• objective, complex research of objects of examination;

• verification of accordance of objects of examination to the requirements and norms of current legislation;

• estimation of accordance of objects of examination to the modern level of scientific and technical know ledges, tendencies of scientific and technical progress, principles of public scientific and technical policy, requirements of ecological safety, financial viability;

• analysis of level of the use of scientific and technical potential, estimation of effectiveness of research works and **experimental and designer** developments;

• prognostication of scientific and technical, socio-economic and ecological consequences of realization or activity of object of examination;

• preparation of the scientifically grounded expert conclusions.

Subject obligatory scientific and scientific and technical examination: national and state scientific and scientific and technical programs; intergovernmental scientific and scientific and technical programs which will be realized on the basis of international agreements of Ukraine within the limits of its territory; of a particular branch and **to apply in different industries** programs in the field of scientific and scientific and technical activity; innovative programs and projects of state value.

The analysis of the normative-legal adjusting of innovative activity shows in Ukraine, that general legislation which fastens bases of public policy in the field of innovative activity, sufficiently developed, but carries mainly declarative character, because does not offer the effective mechanisms of providing of implementation of public policy in the field of innovative activity at the level of the special normative-legal acts. The mechanisms of indirect state support do not operate really, although block of financial legislation and it allows to do. So, for example, in the tax legislation of Ukraine among principles of construction and setting of the system of taxation the first principles stimulation of scientific and technical progress, technological update of production, going of domestic commodity producer into the world market of highly technological products is meant. However in business financial institutes more frequent counteract innovative development, than assist him, being the initiators of halt of reasons of laws, touching the grant of tax deductions the performers of innovative projects.

In conclusion it is necessary to underline that economy of highly developed countries of the world already more **fifty years** exists in the conditions of innovative way of development. Ukraine on this way undertakes the first steps

only. And from that, as far as successful will be a start in transition of economy of Ukraine on the innovative model of development, so positive results we will have in the future.

In the conditions of reformation of economy of Ukraine passing to the innovative model of development means above all things the search of new financial sources for activation of innovative activity. For this purpose it is necessary additionally to accept the proper legal acts, settings privileges for „innovative" creating terms for bringing in of private capital in an innovative sphere, stimulant development of venture enterprise.

There is a row of important problems, related to determination of subjects of favorable tax treatment and crediting on criteria, related to innovative activity. For activation of innovative activity in Ukraine it is necessary to develop and enter the mechanism of strengthening of the personal interest of commercial banks in the increase of volume of investments, above all things by the long-term crediting of innovative activity.

In connection with that the volume of investments from the State budget on innovative aims makes insignificant sums from his general volume, an important value is acquired by the problem of search of new untraditional sourcing of investments. In particular, for Ukraine an important question is a search and development of charts of bringing in of facilities of population for financing of priority innovative projects and programs. The necessity of increase of efficiency of the legal adjusting of innovative activity supposes, in particular, the improvement of method of lead through of examination of innovative projects, that is the important lever of influence from the side of the state on innovative processes.

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ANTIKRIZISNYY MONITORING OF FINANSOVO-EKONOMICHESKIKH INDEXES OF WORK OF ENTERPRISE

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1. ABSTRACT

In the article the questions of warning of the crisis phenomena are considered on machine-building enterprises. The complex of mathematical functions which design production and market situations on an enterprise is offered. The use of suggestions of authors will help machine-building enterprises to diagnose a crisis on his early stage, to carry out monitoring of innovative activity, design a market situation, forecast the market state of affairs.

Production and commercial activity of machine-building enterprise in a greater or less degree characterize great number of the most different indexes which can part on different groups. As it appears us in the context of the research conducted by us, it is necessary to select two basic group of indexes which are mainly determining at the estimation of level of production and enterprise activity of enterprise and his financial stability:
a. indexes of market success of products of enterprise in this period of time;
b. indexes of production and financial stability of enterprise.

The existent base of scientific researches recommends and in the group of «a» and in the group of «b» far of indexes and descriptions, to take into account which in a number of cases or in general is not possible or this account carries in itself a considerable error and inaccuracy, leading in the total on occasion to the erroneous conclusions. In this connection chosen by us, appraised and grounded with each of the groups indicated higher only for two index, which, in our view, allow in the total to do fully reliable conclusions and recommendations.

From the indexes of group of «a» we are select the indexes of production and volume of realization of products volume and their intercommunication on every stage of the examined period of time. From the indexes of group of «b» is an index of account receivable, that volumes of financial debt this enterprise by his debtors, and index of the extended account payable, that volumes of financial debt of this enterprise to the creditors, in the budget of the state and it to the workers as a salary.

Research of co-operation of the indicated indexes during the certain period of time allows to define objective tendencies in the change of level the capacity of concrete enterprise, enables to estimate the prospects of his steady stable development. At the same time, the indexes selected by us are used in different cross-correlation dependences, describing the static state and dynamic prospects of development enterprises, the type of which is in a great deal determined the level of range ability of production activity of enterprise, his production program, size of produced unit cost.

For the estimation of the state of production activity of machine-building enterprise it is suggested to use the mechanism of co-operation of the indexes chosen by us from the group of «a» and groups of «b» for period of time equal to one year.

As it appears us, description of production activity of machine-building enterprise can be got with the use of function of *F1*, forming of which has a two variant algorithm:

First variants: $\qquad F_1 = tg\ [\pi\ (y-x)/4\ y],\qquad if\ \ x > y.$ $\qquad$ (1)

Second variants: $\qquad F_1 = tg\ [\pi\ (x-y)/4x],\qquad if\ \ y > x,$ $\qquad$ (2)

where x - is a production of goods volume, thousand of Uah.; y - is a volume of realization of products, thousand of $.
Certain limitation of this function is that a condition must be observed in both variants $(y + x) > 0$. It means that the offered function of *F1* in both the varieties supposes the analysis of Production and commercial activity only production active enterprises, that necessarily carrying out production and (or) sale the independently made products.

Taking into account some transformations of function of *F1*, its varieties (1) and (2) assume an air more comfortable for a research analysis and economic interpretation of separate values of this function:

First variants:

$$F_1 = tg \left[\frac{\pi}{4} \left(\frac{y - x}{y} \right) \right] \rightarrow y > x \quad , \qquad (3)$$

A function is certain in an interval   [0; 1].

Second variants:

$$F_1 = tg \left[\frac{\pi}{4} \left(\frac{y - x}{x} \right) \right] \rightarrow y < x \quad . \qquad (4)$$

A function is certain in an interval   [-1; 0].

Will conduct research of economic essence of the function of *F1* offered for an analysis, and also will offer economic interpretation separate most interesting its values. At the construction of function of *F1* we came from a parcel, that this function must reflect the basic variants of co-operation of volume production (*x*) and volume of realization of products (*y*). In the offered kind the function of *F1* characterizes both successful work of machine-building enterprise (subject to condition $y > x$) and presence of certain market problems in his work (on condition of $x > y$). The indicated difference between a production volume and volume of realization of products can be used as a certain rate fixing depending on the values of õ or at.

A choice for the function of *F1* of tangential analytical dependence allows to limit to the area of values of this function the interval [-1; +1] and by virtue of non-linearity of function of *F1* there is possibility to watch the gradient of change of production of goods or volumes of realization of products volumes at the market. In particular, it is possible to forecast the intervals of falling of production (at $x \rightarrow 0$) or volume of sales volume ($y \rightarrow 0$).

Thus, coming from described higher than parcels, range of values of function of *F1* characterized by the next characteristic states economic interpretation of which can be taken to the following.

1. **F1 = (-1).** Such value this function can take on an at the followings values of arguments: $y = 0, x > 0$. A situation on a machine-building enterprise, which answers this value of function of *F1*, reflects such position, when the production of goods which now by virtue of certain reasons a market does not perceive is carried out, that realization of products absents. All produced products leaves on storage and fills up ware-house supplies. Such production and commercial being of businesses in an enterprise it is suggested to name «orientation on storage». Expedience of such state of enterprise in a number of cases is determined the brief sharp market vibrations of the commodity state of affairs and can be used at presence of certain supply of financial stability of enterprise, because work «on storage» results in the substantial increase of circulating assets. Temporal

scopes of the state of enterprise «orientation on storage» usually not wide (within the framework of one quarter) and determined production (by the level of rangeability of the production program) volumes, level of costs of production and possibilities of enterprise to finance the increase of circulating assets. Efficiency of the state of enterprise a «orientation on storage» consists of the forecast sharp improvement of practically all basic indexes of work of enterprise at the offensive of the growing market state of affairs and presence in this period of certain «commodity advantage» before competitors. Except for it, a «orientation on storage» allows to create certain insurance from the different sort of production and commercial complications: a market presence of enterprise will be solid even in case of brief stopping of production ($x = 0$), all contractual relations an enterprise will satisfy with the use of ware-house supplies.

2. **-1 < F1 < 0.** Such value this function can take on an at the followings values of arguments: $x > y$, that production of goods volumes exceed the volumes of its sale in a money equivalent. Such situation on a machine-building enterprise reflects one or a few from the followings states:
   - an enterprise makes experimental parties of products and with their help carries out the «trial» marketing of market;
   - a dynamics of conjuncture correlations at the market of this commodity is in the falling
     stage (suggestion exceeds demand, a market equilibrium is broken, part of products remains
     unclaimed users);
   - this commodity is on the early stages of the life cycle and coming an enterprise to carry out the considerable complex of marketing's communications (advertising, stimulation, personal sale etc.) with the purpose of substantial increase of demand on the products or to expect the results of already realizable marketing's communications. The unrealized part of the produced products fills up ware-house supplies in expectant of sharp growth of market demand;
   - this commodity is on the final stages of the life cycle and coming an enterprise to carry out conclusion of this good from a market and replacement of him more perspective and more progressive an analogue, satisfying the changing necessities of users at more high level.

Being of businesses in an enterprise, proper the interval value of function of *F1* from «-1» to «0», requires the special attention of higher management and operative reaction. Ignoring of the folded situation, in majority from the cases considered higher, inevitably can result in the followings economic consequences:

to the exceeding a norm overstocking of storage facilities and their ineffective use;

- to «washing» of circulating assets of enterprise and decline of level of flexibility of reacting on the changes of market situation;
- to appearance of debts before creditors, in a pay-envelope to the personnel, to deductions in the state and local budget etc. (it already is the first signs of increasing crisis on an enterprise);
- to worsening of prospects of further effective production and commercial activity of enterprise.

3. **$F_1 = 0$.** It is a very favorable situation on a machine-building enterprise, which answers this value of function of F_1. It reflects such position, when a production of goods volume exactly corresponds the volume of sales the same products ($x = y$), that a market of this commodity is in a state of equilibrium. To such state usually and all subjects of market aim, because preeminently in such position on an enterprise there are no problems and it definitely skims the «creams» from a market. In general case it is an enough favorable situation at this commodity market, however on occasion after this seeming calmness can hide the certain expected negative tendencies. At first, the situation of market equilibrium answers the central stages of life cycle of commodity more frequent than all, after which inevitably the period of decrease in demand will come and main is not to miss out this moment and be to it ready. Secondly, it is necessary to prepare the update innovative version of good-analogue, which in a greater measure will correspond the future (already changing) necessities of market. As a rule, it enough difficult in a scientific, production and market relation work and failures to complete in this direction can substantial appearance affect future successes of enterprise. And, finally, thirdly, it is necessary expressly to understand that, whether this production (accordingly, and volume of sales) of goods volume answers to production potential of enterprise, whether the commercial aims of enterprise are attained on this top-level position of his production program, whether not in use production capacities and unrealized market possibilities do not hide after such happy state. In fact accordance the state of arguments of $x = y$ can take place and at, for example, to the 10-percent load of production capacities, that not nearly reflects positive tendencies in the folded economic state of enterprise.

4. **$1 < F_1 < 0$.** It is a very favorable situation also, when enterprise and market of his products develop successfully, that the volume of sale exceeds a production volume ($y > x$). In this situation takes place:
- growing commodity market the capacity of which with every temporal interval is increased;

- more suitable for the economy of enterprise the growing stage in the dynamics of the market state of affairs;
- positive influence on the value of function of $F1$ of favorable terms of competition at the market.

A situation which is analyses allows an enterprise successfully to realize not only current products but also its supplies from storage, accumulated in less favorable periods in activity of enterprise (for example, in those situations, when value of function of $F1 = (-1)$ - first from the situations considered higher). Research and analysis of such situation allows to expose some dangers which are unobvious present at the market. For example, a growing market can be dissatisfied production possibilities of this enterprise, the therefore appearing deficit of products inevitably will influence on appearance of new enterprise, that in the total will result in the future toughening of competitive activity at the change of present conjuncture correlations.

5. **$F1 = 1$.** Such value this function of $F1$ can take on an at the values of arguments: $x = 0, y > 0$. It means that a manufacturer by virtue of certain reasons does not produce this products (an enterprise can not nearly works, there can be a model in a certain measure outdated and taken off from a production, an enterprise is temporal reformed on the issue of other model more asked at the market, on an enterprise strike etc.), and execution of prisoners before agreements and satisfaction of nascent or remaining necessities an enterprise as far as possibilities carries out with the use of the ware-house supplies. A situation from the anti is a crisis point of view is in a certain measure threatening, because:
- the present at disposal of enterprise ware-house supplies of this products can quickly dry up;
- an enterprise will appear outside active market operations, that inevitably will result in the losses of markets of sale;
- it can very credible be different family economic approvals for the nonperformance of contract obligations;
- crisis processes develop intensively, if an enterprise does not undertake the special anti is a crisis measures, allowing to pick up thread the production of this goods.

Thus, the area of calculation values of function of $F2$ allows to analyses and estimate work of machine-building enterprise on a production and realization of the products, to carry out the permanent production monitoring of the activity, in time to warn undesirable tendencies both on an enterprise and at the market of his products. If monitoring control of values of function of $F1$ determines its aspiring to the value to (-1), then it means that enterprise not enough efforts puts to activation of sale operations. Aspiring of function of $F1$ to the zero testifies to stable enough work of enterprise, and when tendencies of approaching of value of function of $F1$ are to (+1) – on an enterprise steady

pre-conditions of falling of production of this goods volumes were set. The basic point and interval values of function of *F1* and their economic descriptions, in detail considered by us higher, are presented in Table 1.

Table 1

is Economic description of area of values of function of *F1*

Name of tendencies	Value of function of $F1$	Value of arguments		State of enterprise and his market (description of tendencies)
		x	y	
Orientation on storage	$F_1 = (-1)$	$x > 0$	$y = 0$	The produced products are not for sale at the market and fills up ware-house supplies.
Difficulties at the market	$(-1) < F_1 < 0$	$x > y$	$y < x$	Production of goods volumes exceed the volumes of its sale in a money equivalent.
Equilibrium	$F_1 = 0$	$x = y$	$y = x$	Most favorable situation on an enterprise. A production of goods volume exactly corresponds the volume of its sales (state of market equilibrium).
Growing market	$1 < F_1 < 0$	$x < y$	$y > x$	Favourable situation, when enterprise and market of his products develop successfully
Stop of production	$F_1 = 1$	$x = 0$	$y > 0$	A manufacturer does not make this products, and on implementation of the obligations uses the ware-house supplies of commodity.

At the same time, as it appears us, use in the anti is a crisis monitoring only values of function of *F1* is necessary, but by the not sufficient condition of receipt of objective and reliable information about an existent situation on an enterprise. In this connection, another monitoring function of *F2*, reflecting the external financial mutual relations of enterprise-manufacturer with the contractors, is offered to the use. Economic maintenance of this function can be taken to the next parcels. In basis of forming of function of *F2* it is suggested to put the indexes of production-financial stability of enterprise in a market environment, in particular, debtor-creditor correlations. In this case it is suggested in the index of account receivable to take into account the volumes of financial debt this enterprise his debtors (traditional going near forming of this index), and to interpret the index of account payable in more extended, a few different from traditional formulation sense. It is suggested to the account payable to take the volumes of financial debt of this enterprise the creditors, and also debts of enterprise in a budget (state and local) and it to the workers as a salary.

The analysis conducted by us retuned that in a most degree answers description of dynamics of the indicated indexes and variants of their co-operation, as it will be retuned by us below, analytical function of cotangent. Taking into account the parcels resulted higher an analytical type of the offered function of *F2* will be following:

$$F_2 = \frac{4}{\pi} arctg \left(\frac{\alpha - \beta - \gamma - \eta}{\sqrt{\alpha^2 + (\beta + \gamma + \eta)^2}} \right)$$

where α - it is an account receivable of enterprise, thousand of \$; β - it is an account payable, thousand of \$; γ - it is a debt of enterprise before a budget, thousand of \$; η - it is a debt of enterprises on a salary the personnel, thousand of \$.

The function of *F2* is intended for the objective and reliable estimation of the financial state of concrete enterprise, to expose and describe exception financial conditions on an enterprise (taken and not returned credits, that $(\beta + \gamma + \eta) > \alpha$; an enterprise plays role of financial investor, when $(\beta + \gamma + \eta) < \alpha$.

Choice of function of arctangent of cconditioned more exact and by more objective analysis of situation, when a sum $(\beta + \gamma + \eta)$ aspires to the value α, and on the whole the function of *F2* aspires to the zero. Also the choice of type of analytical function of arctangent instrumental in circumstance that it in a greater measure is added rate fixing in the interval of values [-1; +1].

The analysis of area of values of function of *F2* conducted by us allows to select and ground the row of characteristic situations in financial activity of machine-building enterprise.

1. **F2 = (-1).** Such value this function can take on an at the value of account receivable equal to the zero ($\alpha = 0$). A situation on a machine-building enterprise, which answers this state of enterprise, talks that an enterprise works in the mode of account payable, but here no financial obligations before this enterprise at none of his production and commercial partners are present. It is necessary to establish circumstance that work of industrial enterprises in the mode of account payable is most ordinary, however, here at enterprises, as a rule, there are partners which must this enterprise. The examined situation is considerably more difficult, because in this case the question is about an absolute account payable, which without radical interference with an economic situation already abuts upon bankruptcy of enterprise.

2. **-1 < F2 < 0.** Such value of the probed function corresponds the area of its values, where total accounts payable of enterprise exceed the total obligations of debtors of enterprise, that $(\beta + \gamma + \eta) > \alpha$. In this situation an enterprise requires a certain economic revival, because the real financial situation shows certain complication at the decision of question of payment of creditor obligations. This position is not something original,

it is an ordinary situation (usually creditor obligations can be anymore or less than debtor). An enterprise a not fact exceeding of account payable above a debtor, but size of this exceeding must fluster Δ ($\Delta = (\beta + \gamma + \eta) - \alpha$). What anymore value Δ, the nearer value *F2* to (-1). In this connection, as it appears us, there is a certain confiding area of values of function of *F2*, which a happy economic situation can in a greater or less degree correspond on an enterprise, the analysis of financially-production indexes of which is conducted. Within the framework of this confiding area the deficit of balance of payments of enterprise does not cause the special fears. For example, such area can be a great number of values of function of F2 in an interval [-0,5 < *F2* < 0], that mainly corresponds practice of work of most machine-building enterprises Charkov and Charkov area.

3. **F2 = 0.**   Such situation characterizes self-supporting ness of pay possibilities of concrete enterprise – the debts of enterprise correspond debts before an enterprise, that ($\beta + \gamma + \eta$) = α. Such position in relative sense is fully acceptable, the additional analysis of the folded situation is however needed on the followings parameters:

- the absolute sizes of financial obligations of enterprise are which before creditors;
- the real possibilities of return of account receivable are which on terms and volumes;
- in what correlation terms are volumes of receipt of debts and settling debt;
- the real financial possibilities of enterprise are which on payment of obligations under credits without the account of present account receivable.

The indicated parameters will help more exactly to estimate a financial situation on an enterprise, which can be critical even at ($\beta + \gamma + \eta$) = α, and can be fully happy even on some leaving of value of function of *F2* outside a confidence interval [-0,5 < *F2* < 0].

4. **1 < F2 < 0.** Such area of values of function of *F2*   corresponds the successful enough functioning of enterprise. It practically jam-free settles accounts on the creditor obligations, though has on occasion substantial debts from the side of the contractors, that ($\beta + \gamma + \eta$) < α. However, in some situations and such position of enterprise does not allow to count him to a full degree successful. To the indicated correlation of arguments of function of *F2*   could bring not quite positive tendencies over in-process enterprise. To them follows, for example, to take:

- innovative stagnation of enterprise (dread to take credits by virtue of large interest rates or not enough positive market prospects of object of crediting);

- low business reputation of debtors is enterprises which exceeded a time limit payment of debtor debts and prospect of their receipt in the nearest prospect enough misty;
- an enterprise practically does not have free financial resources and mainly counts the debtors on honesty.

5. **F2 = 1.** Such value this function of $F2$ can take on an at the followings values of arguments: an enterprise does not have an account payable, that to nobody nothing it must - $(\beta + \gamma + \eta) = 0$, $\alpha > 0$. In our view, it in a financial relation the friendliest to the enterprise situation. An enterprise has all begun to work facilities possibility to inlay in perspective from his point of view investment and innovative projects, diminishing the profits on the sum of debts is not needed. At the same time, as it appears us, to the ideal state of production and commercial activity here also yet far. Circumstance that an enterprise does not have credits in general, talks that it uses for maintenance of the activity and innovative development only the personal funds. These resources more frequent than all are limited and does not allow to a full degree to realize considerable investment and innovative projects, that weakens both production and market possibilities of enterprise definitely. A receipt of the credit financing in many cases is the extraordinarily progressive phenomenon and ignoring of this sourcing of the activity very often does not do an enterprise stronger and weakens his financial stability.

Thus, the area of calculation values of function of $F2$ allows to analyses and estimate the financial indexes of work of machine-building enterprise, carry out the permanent financial monitoring of the activity, in good time to warn undesirable tendencies both on an enterprise and at the market of his products. If monitoring control of values of function of $F2$ determines its aspiring to the value to (-1), then it means that total accounts payable of enterprise exceed the total obligations of debtors of enterprise which can be functions not on facilities substantially, having an excessive volume of creditor obligations. Aspiring of function of $F2$ to the zero testifies that within the framework of certain confiding area the deficit of balance of payments of enterprise does not cause the special fears. When tendencies of approaching of value of function of $F2$ are to (+1) – on an enterprise steady pre-conditions were set there is the enough successful functioning. The basic point and interval values of function of $F2$ and their economic descriptions, in detail considered by us higher, are presented in Table.2.

Table 2
is Economic description of area of values of function of F2

Name of tendencies	Value of function of F2	Value of arguments		State of enterprise and his market (description of tendencies)
		α	$\beta+\gamma+\eta$	
Creditor pit	$F2 = (-1)$	$\alpha = 0$	$(\beta+\gamma+\eta)>0$	Accounts payable have absolute character, a situation on an enterprise abuts upon bankruptcy
Dangerous credits	$F_2 = (-1)$	$\alpha<(\beta+\gamma+\eta)$	$(\beta+\gamma+\eta)>\alpha$	An enterprise lives not on facilities, having an excessive volume of creditor obligations
Balance of payments	$(-1) < F_2 < 0$	$\alpha=(\beta+\gamma+\eta)$	$(\beta+\gamma+\eta)=\alpha$	Self-supporting ness of pay possibilities of concrete enterprise
Successful work	$F_2 = 0$	$\alpha>(\beta+\gamma+\eta)$	$(\beta+\gamma+\eta)<\alpha$	Successful enough functioning of enterprise
Potential investing	$1 < F_2 < 0$	$\alpha >0$	$(\beta+\gamma+\eta)=0$	All begun to work facilities are inlaid in innovative development of enterprise projects

The use for the anti is a crisis monitoring of financial and production indexes of work of machine-building enterprises of functions of *F1* and *F2* gives the positive results. However, each of the indicated functions reflects the results of consisting of separate sphere – by a production or financial, which, in spite of their major value in activity of enterprise, have autonomous enough spheres of influence. Therefore, as it appears us, the complex anti is a crisis monitoring of financial and economic indexes of work of machine-building enterprise can be carried out only with the simultaneous (integral) use of functions of *F1* and *F2*. For achievement of this purpose it is suggested to use the cartesian system of co-ordinates (cartesian phase plane), the rate fixing of axes in which will be carried out with the use of values of functions of *F1* and *F2*. In connection with that area of values limited each of the functions of *F1* and *F2* examined by us by values +1.-1, it means that internal points of square $(-1) \leq F_1 \leq (+1)$; $(-1) \leq F_2 \leq (+1)$ engulf all variety of joint values of functions of *F1* and *F2*. Defining in every concrete moment of time the value

of these functions we find on a phase plane a point and depending on its location can do economic comment of the production-financial state of enterprise.

Monitoring of values of functions of *F1* and *F2* during a few years (quarters, month, ten-day periods et cetera) one by one and enables a that enterprise to watch the change of position of integral estimation on a phase plane (motion of integral point into a square) and the same estimate tendencies in the change of the state of businesses on an enterprise and, that is extraordinarily important, to estimate efficiency of the efforts undertaken on an enterprise on the improvement (to strengthening) of production-financial situation.

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A Short History of the Publications of the University of Miskolc

In 1929 the legal predecessor of the University of Miskolc in Sopron started the series of university publications with the title *Publications of the Mining und Metallurgical Division of the Hungarian Academy of Mining and Forestry Engineering* (Volumes I.-VI.). From 1934 to 1947 the Institution had the name Faculty of Mining, Metallurgical and Forestry Engineering of the József Nádor University of Technology and Economical Sciences at Sopron. Accordingly the publications were given the title *Publications of the Mining and Metallurgical Engineering Division* (Volumes VII.-XVI.). For the last volume before 1950. - due to a further change in the name of the Institution - *Technical University, Faculties of Mining, Metallurgical and* Forestry *Engineering, Publications of the Mining und Metallurgical Divisions* was the title.

For some years after 1950 the Publications were temporarily suspended.

After the foundation of the Mechanical Engineering Faculty in Miskolc in 1949 and the movement of the Sopron Mining and Metallurgical Faculties to Miskolc the Publications restarted with the general title *Publications of* the *Technical University of Heavy Industry* in 1955. Four new series - Series A (Mining), Series B (Metallurgy), Series C (Machinery) and Series D (Natural Sciences) - were founded in 1976. These came out both in foreign languages (English, German and Russian) and in Hungarian.

In 1990, right after the foundation of some new faculties, the university was renamed to University of Miskolc. At the same time the structure of the Publications was reorganized so that it could follow the faculty structure. Accordingly three new series were established: Series E (Legal Sciences) Series F (Economical Sciences) Series G (Humanities and Social Sciences). The latest series, i.e., the series 11 (European Integration Studies) was founded in 2002.

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