

The Competitiveness Evaluation of CEE Countries

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In the article I will evaluate the competitiveness position by quantitative and by qualitative methods. An evaluation of qualitative competitiveness of CEE countries can give important insights to the most important development steps in the near future. This is especially important in view of the next steps in the enlargement process of the EU. The European Union's prosperity is based on its capacity to compete in the global market. For this reason, we need to measure and study our economy's position in terms of competitiveness. Competitiveness creates the necessary conditions for sustainable development, for the creation of new production activities and new jobs, and for a better quality of life. We can evaluate the competitive position of selected countries by WEF of IMD competitiveness report. Slovenia, Slovakia, Czech R. Romania and Hungary are located in Central Europe. These countries have the same historical backgrounds in Austro-Hungarian empire. The well developed classical infrastructure and good educational system can be explained through historical reasons. Today we have a well developed competitiveness methodologies for evaluation. It is interesting to discover are the CEE countries still close after EU integration process. One way to evaluate the qualitative competitiveness of CEE countries is to illustrate competitive environmental frameworks using the data for CEE economies and some European countries. The factors in the proposed framework are index measures calculated from perceptual variables collected by executive surveys. In order to rank factors of competitive environmental frameworks for selected countries we use the Standard Deviation Method, which can accurately assess the relative differences between countries' performances. Indexes give as a picture of the competitiveness position of selected group.

Key words: productivity and competitiveness, benchmarking, development strategy, national development

JEL classification: 011, 024, 038, 057

1. INTRODUCTION

After European integration process can be seen the competitiveness level of CEE countries are still very similar. European internal market and the European policies have forced the competitiveness determinant in CEE countries. Slovenia, Slovakia, Czech R., Romania and Hungary are located in Central Europe. These countries have the same historical backgrounds in Austro-Hungarian empire. The well developed classical infrastructure and good educational system can be explained through historical reasons. Today we have a well developed competitiveness methodologies for evaluation. It is interesting to discover are the CEE countries still close after EU integration process. In the article the competitiveness will be evaluated for CEE countries. Differences are very clear among CEE countries, raising doubts about the growth potential of the Central Europe, and pointing towards a possible critique of the strategies that have been adopted in the time of accepting *Acquis Communautaire* and European policies on many fields. Three hypotheses will be tested in the article: First hypothesis is that enlargement process improve the institutional competitiveness. The second hypothesis is that indexes allow us to evaluate the qualitative competitiveness. The third hypothesis is that European internal market has changed the trade structure in CEE countries.

A discussion of the implications of modern economic growth theory and comparisons with the growth paths of rapidly advancing market economies suggests some consistent weaknesses, although there are differences of degree between the individual countries. Competitiveness depends on shareholder and customer values, financial strength which determines the ability to act and react within the competitive environment and the potential of people and technology in implementing the necessary strategic changes. While there are many theories about competitiveness and related interdisciplinary fields of strategy, operations, policies, organizations, they are not used widely by practitioners in their decisions for enhancing or sustaining competitiveness. Research efforts have brought many interesting perspectives and

frameworks at the country, industry, and firm level. The popularity of the competitiveness benchmarking at the country level such as Global Competitiveness Reports (WEF), World Competitiveness Yearbooks (IMD), and National Competitiveness Reports is an indicator of growing interest in comprehensive frameworks and data for competitiveness-related decision-making.

Competitiveness is a broad concept, which can be observed from different perspectives: through products, companies, branches of the economy, the short-run or the long-run. The most complex of these is the concept of the competitiveness of the national economy. Some authors even negate its importance, particularly in a system of floating exchange rates. For example, Krugman (1994) sees the competitiveness of the national economy as a dangerous obsession, and similarly, Porter claims that national productivity is the only meaningful concept of competitiveness at the state level. States and companies should be viewed equally, as international trade is not a zero sum game and because states cannot be competitive in all branches of economic activity (Porter, 1990). The concept of competitiveness is somewhat elusive particularly at the national level. There is an on-going academic debate over the merits of emphasising price (i.e., exchange rates and wages) and non-price factors (i.e., technology, design, productivity, human capital etc.) in such a definition. Following the OECD define competitiveness as: "the degree to which, under open market conditions, a country can produce goods and services that *meet the test of foreign competition* while simultaneously maintaining and expanding domestic real income (OECD, 1992). The first Competitiveness Advisory Group appointed by the European Commission argued that competitiveness implies elements of productivity, efficiency and profitability and is a powerful means of achieving rising standards of living and increasing social welfare. The critical determinants of competitiveness are productivity improvements, and technological innovation. Similarly, Scott and Lodge argue that since World War II, the shift of industrial activity towards science-based enterprises such as electronics or chemicals

means that national competitiveness is increasingly dependent on technology, capital investment, and labour skills. Unlike previous determinants of national competitive advantage, these factors are not naturally dependent on any particular region or nation state. These resources are internationally mobile and can be attracted and shaped by any state which has a suitable enterprise culture, liberal trade and investment laws, a strong scientific and technical infrastructure, and a good educational system (Lawton, 1999). Competitiveness is more and more a matter of strategies and structures, and less and less a product of natural endowments. Competitiveness development is based on an understanding of the nature of technological change in the business enterprise sector. As discussed below, it focuses on the issue of learning costs to absorb technological and other manufacturing capabilities in enterprises in industrial latecomers. The pace at which enterprises acquire these capabilities is reflected in shifts in comparative advantage at the country-level. Thus, national competitiveness can be proxied by manufactured export performance relative to competitor economies. A more competitive economy is characterized by *rapid manufactured export growth combined with sustained technological upgrading and diversification*. This is a measurable notion, which emphasizes both growth performance and structural change over time in the manufacturing sectors of individual open economies. Moreover, it emphasizes efficiency considerations and gives rise to policy suggestions. Similarly, competitiveness policy can be viewed as the sum of policy instruments, which may induce more rapid export growth and technological upgrading in a country's enterprises. The need to improve our competitiveness is not imposed by Government, but by changes in the world economy. Improving competitiveness is not about driving down living standards. It is about creating a high skills, high productivity and therefore high wage economy where enterprise can flourish and where we can find opportunities rather than threats in changes we cannot avoid. Many governments seriously peruse national competitiveness rankings produced by WEF or IMD. The study of competitiveness strategy is now a very important obligation of government. All new member countries

have high-level official committees to deal with competitiveness, reaching across ministerial divisions to devise international, national or regional policy. The concept of competitiveness and competitive strategy comes from the business school literature. Companies compete for markets and resources, measure competitiveness by looking at relative market shares, innovation or growth and use competitiveness strategy to improve their market performance. The competitive society, in sociological terms, is the society which can achieve a dynamic balance between wealth creation and social cohesion. The available literature on national competitiveness increasingly views competitiveness strategy in holistic terms, involving the use of several related policies (Fagerberg 1996). This literature typically rejects the view found in popular discourses that a single instrument can achieve a major improvement in national competitiveness. Following this literature, this paper emphasizes a holistic approach to national competitiveness policies, which has two elements: a three-way national partnership (involving complementary actions by government, the private sector and labour organization) for national competitiveness.

What makes for competitiveness in a country's economy? The NCC report uses a particularly enlightening model for understanding the role of competitiveness, which it likens to a pyramid. At the bottom, forming the foundation of the economy, are five "inputs", the primary drives of competitiveness. These are: business and work environment, economic and technological infrastructure, education and skills, entrepreneurship and enterprise development, and innovation and creativity. This is where policy-makers can have the greatest effect on competitiveness. The second level of the pyramid, which the report calls the intermediate stage, contains four building blocks which can be regarded as the direct outcomes of processes at the bottom. They are productivity, prices, wages and costs. Where favourable, they add up to what we mean by competitiveness. At the top level we find the "outputs", the benefits that we expect competitiveness to bring to society in the form of quality of life, sustainable development and so on

(Annual competitiveness report 2003, 2003). General definition of competitiveness concept involves also defining its range, which can be reviewed in three major groups: (1) local (regional) competition-range of suppliers of a product or a service is limited to the closest surroundings (often characteristic to the market of services); (2) internal (national) competition-domestic companies supply a product or a service (characteristic to the internal market protected by foreign trade restrictions); (3) international (global) competition-suppliers of a product or a service might come from all over the world. The term »international competitiveness« refers to the fact that in reality the stage of competitiveness is tested only on the world market (Garelli, 1997). Most of the studies mentioning competitiveness of a nation present the factors used to measure the competitiveness, however, the concept itself is not defined. It is impossible to carry out correct measurement and interpret the results adequately when the goal is not defined. The emphasis on »competitiveness« threatens to pervade all aspects of economic and social life. This is true for companies and nations, whether their activity is in the internationally traded goods sector or not, whether goods are privately produced or collectively provided: all are now equally subject to the criteria of the discourse of competitiveness. Company strategy and public policy are alike concerned to match supposed international challenges. This is also increasingly so for individuals, who are also required to become competitive in the way they conduct their lives, these demands going under the headings of being flexible, innovative, imaginative entrepreneurial, and so on.

The European Union's prosperity is based on its capacity to compete in the global market. For this reason, we need to measure and study our economy's position in terms of competitiveness. Competitiveness creates the necessary conditions for sustainable development, for the creation of new production activities and new jobs, and for a better quality of life. We can evaluate the competitive position of selected countries by WEF or IMD competitiveness report.

2. METHODOLOGY OF QUALITATIVE COMPETITIVENESS

One way to evaluate the qualitative competitiveness of CEE countries is to illustrate competitive environmental frameworks using the data for CEE economies and some European countries. The factors in the proposed framework are index measures calculated from perceptual variables collected by executive surveys. In order to rank factors of competitive environmental frameworks for selected countries we use the Standard Deviation Method, which can accurately assess the relative differences between countries' performances. The method is also used in competitiveness reports to calculate overall, factor and sub-factor rankings of competitiveness. Indexes give as a picture of the competitiveness position of selected group. The world market is becoming more important. Because of the dynamism of trade we can evaluate the development stage of the country with the analysis of the export-import flows. Trade performance of a country is a good indicator of development stage. International trade could support the growth of BDP. Usually we measure trade performance with some indicators like openness of a country or the growth of export. It is also generally recognized that openness to trade can play an important role in helping nations to achieve greater prosperity. In this regard, a number of studies have explored the relationship between free trade and economic growth (Sachs, Warner 1995). Although it is indeed true that opening to trade does not always lead to higher growth, it also seems clear that the variation in national experiences stem in large part from differences in the internal conditions of the countries in question. Among these differing conditions are critical factors such as governance, the quality of institutions, levels of education and health, and law and order. We can say that it is hard to finance welfare state without high quality of export. The success on international markets, which is measured by export shares, is an indicator of integration in global trade. The structure of an industrial export is the result of production capacity, the quality of management, innovation system, business cul-

ture and institutional environment. In the short term on the export success could influence the quality of makroeconomic management, specially exchange rate. From a dynamic perspective, the change in the country's sector-specific share in world exports is obviously significant. Similarly, the ability of exporters to increase their sectoral trade surplus or reduce their deficit sheds light on the evolution of competitive advantages. In addition, the degree of specialization in particularly dynamic products within a given sector is closely related to trade competitiveness. Moreover, changes in product differentiation and market diversification capture the dynamics of trade competitiveness.

For evaluation of competitiveness we must find the real reasons for changed trade flows. Firms could be competitive if the market shares are growing. On the other side we can say that export articles are dynamic, if export shares are growing faster than average. If a country is a successful in information technology sector, than the all industry has the qualtative improvement. We can expect a good influence on all export. Differences in technology are thus at the centre of explanations of specific patterns in international trade, but in contrast to the »new« theories, the static Ricardian model takes technology as exogenous and characterised by constant returns to scale. Technology differences between countries are given and their evolution not further explained. To put it with the words of Grossman-Helpman (1995) until quite recently, the formal trade theory has focused almost exclusively on the effects of technological disparities without delving much into their causes. Sustainable growth is made feasible by the assumption of some kind of technological externality; that is, the creation of knowledge through private R&D yields positive external effects so that the social return on investment in R&D exceeds the prive return. The new knowledge thus adds to the public stock of technological knowledge and is sccessible to all firms doing R&D themselves. Without the assumption of technological externalities innovatiors would be in a position to establish permanent monopolies without any further R&D effort. Ongoing innovation requires sustained increases in re-

search productivity. If opportunities for learning are bounded or the learning process runs into diminishing returns, then the engine of technological progress must eventually grind to a halt (Grossman-Helpman, 1995).

Technological differences are thus one of the main sources of national competitive advantages. The more unique and sophisticated a firm's technology and products are, the greater and easier to defend will be the firm's monopoly power and the higher will be the mark-ups on costs. Countries at the other end of the »quality ladder« will have to specialise at the lower end of the quality spectrum and compensate their relative technological backwardness by lower wages or higher usage of energy or environmental resources, where competitiveness mainly builds on favourable manufacturing cost conditions and low price strategies (Wolfmayr-Schnitzer, 1998). We apply the trade classification method introduced by Legler (1982) and further elaborated by Schulmeister (1990) and Schulmeister-Bosch (1987) to discriminate between high-tech and low-tech sectors and the different sophistication of goods according to the main inputs used (human capital, physical capital, labour, other resources). If countries compete successfully in high-tech industries and focus on markets in which quality and know-how are more important than low-price strategies we speak about technological competitiveness, one aspect of qualitative competitiveness. Typical, repeated combinations of attributes among the various product groups in the Legler classification (R&D intensive goods are always human capital intensive, resource intensive goods are always capital intensive). Schulmeister classification thereby distinguishes four main hierarchies of technologies (human capital, physical capital, labour, other resources) which are further subdivided into subgroups. The four main groups are:

- 1) »Human capital intensive industries«: Product groups in which the input of qualified labour exceeded the average intensity by 10 per cent were summed up under this heading. In a further differentiation high technology and medium technology groups

which again can be more capital or labour intensive, were distinguished using expert judgement. Examples of product groups belonging to the high technology group are aeroplanes, optical instruments, power generating machinery, medical and pharmaceutical products, specific organic chemicals, special plastic materials. Examples for medium-tech product groups are paper mill and pulp mill machinery, printing and bookbinding machinery, sound recording and reproducing apparatus and equipment, household type, electrical machinery, photographic and cinematographic supplies, pigments and paints, organic and inorganic chemicals. Within the medium technology group, labor intensive industries (i.e. machines, medical apparatus) seem to be of higher quality than capital intensive medium technology products like motor vehicles or specific chemicals.

- 2) »Physical capital intensive industries«: This group includes product groups which are capital intensive, but at the same time are neither human capital nor resource intensive. Examples are floor coverings, cotton fabrics, iron or steel wire.
- 3) »Labour intensive industries«: This group includes labour intensive products which at the same time are neither human capital intensive nor resource intensive. Examples are leathermanufatures, textiles, footwear, furniture, paper and paperboard, toys, games and sporting goods, which are the kind of products that are usually produced in low-wage countries forcing industrialised countries to qualitative upgrading and product differentiation.
- 4) »Resource intensive industries«: This group includes goods with high inputs of agrarian and mineral resources and according to the intensity of usage are further subdivided into strong and weak resource intensive groups. The latter also include some products groups that are mostly resource intensive but where human capital input is also above average. Examples of prod-

ucts in the resource intensive group are construction materials, glass, textile, yarn, cement, leather etc.

The classification is based on factor intensities across product groups at the 3-digit level of the SITC (Standard International Trade Classification) trade statistic. In a first step total trade in manufactured goods (SITC 5-9) is characterised using the following indicators:

-Human capital intensity: share of scientists, technicians, office-employees, and managerial employees in total employment;

-R&D intensity: share of R&D expenditures in total revenue;

-Capital intensity: gross capital invested per hours worked;

-Labour intensity: hours worked per gross capital invested;

-Scale intensity: employees per production unit;

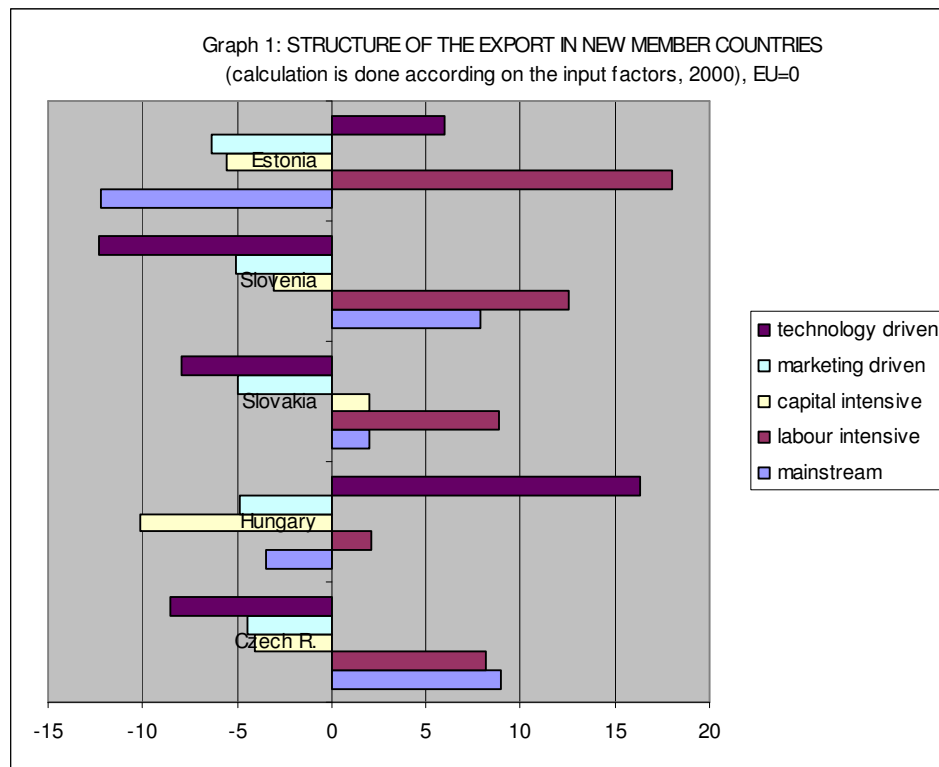
-Resource intensity: share of expenditures on agrarian or mineral raw materials in total revenue;

-Energy intensity: share of energy expenditure in total revenue;

-Environment intensity: share of investments in environmental protection in total investment.

Besides factor intensities, expert judgements were used to distinguish between high-tech and medium-tech production processes within the human capital intensive product groups. For a product group to be assigned one of the above attributes, the input of one factor had to exceed the average value by at least 10 per cent (Wolfmayr-Schnitzer, 1998). We can evaluate the technological position using the Legler/Schulmeister classification of trade into following groups: degree of export specialisation = share of exports of the various technology classes in total exports of manufactured goods; degree of import specialisation = share of imports of the various technology classes in total imports of manufactured goods; revealed comparative

advantage (RCA) indices the relation between the export/import ratio of a specific technology class and the ratio of total exports to imports of manufactured goods; market shares = share of OECD imports from a country in total imports of OECD; export and import unit values. Export or import unit values is calculated as a amount of specific technology class in euros divided by kilograms.

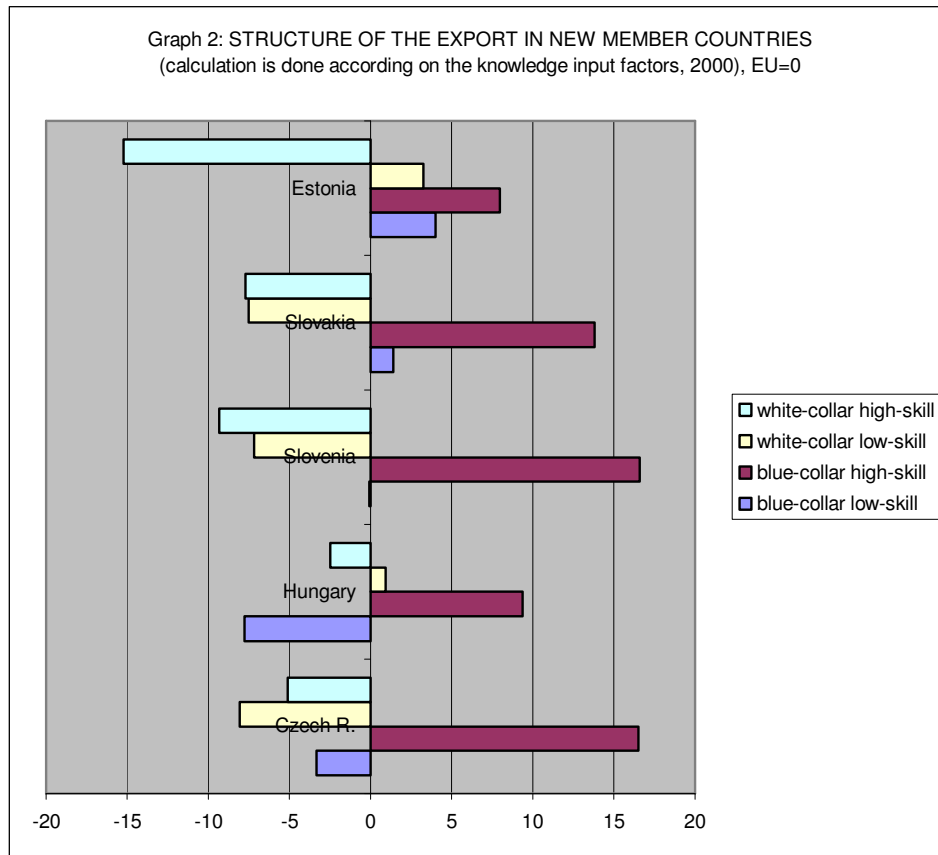


Source: own calculation

In the graph we can see a competitiveness evaluation of CEE countries by typical factor input combination. From the graph can be seen that Estonia rank well by marketing driven industries and also by technology driven industries. Hungary has the best position by technology driven industries. If I observe the technology driven industries,

marketing driven industries and capital intensive industries I realise that Slovenia and Czech R. have negative balance to EU-15 in the year 2000. On the other side CEE countries ranks well by mainstream and by labour intensive industries. According on the export structure all CEE countries laggs behind EU. In Slovenian export strucure can be seen that are labour intensive industries in well position. On the other side Slovenia laggs by capital, marketing and technological intensive industries. Analogous to the first taxonomy introduced above, which related intangible investments in advertising and R&D to the more tangible inputs of physical capital and labour, the important aspect of human resources will be shown the next taxonomy. The data, which have been published by the OECD (1998), are available at 2-digit level of ISIC Rev.2 and distinguish four broad tof occupations, for which shares in total employment can be calculated:

- (i) white-collar high-skill (legislators, senior officials and managers: professionals, technicians and associated professionals);
- (ii) white-collar low-skill (clerks, service workers, shop and sales workers);
- (iii) blue-collar high-skill (skilled agricultural and fishery workers, craft and related trade workers); and finally
- (iv) blue-collar low-skill (plant and machinery operators and assemblers, elementary occupations).



Source: own calculation

This taxonomy shows the human capital especially in the industry. It is important to observe the knowledge level in industrial sector. From the graph can be seen that Hungary has the lowest gap to EU by white-collar high-skill. Czech R. is in better position compaers to Slovenia. Estonia ranks vely in the group white-collar low-skill. According on the export structure compared to EU-15 in year 2000 only Estonia and Hungary have a better position in the group white-collar low-skill.

The survival and competitiveness of firms is determined in product markets. Hence, product market characteristics play a key role in shap-

ing the resource creation, technology development, organisational renewal and internationalisation processes of firms. Both demand and supply side characteristics of markets are important for international competitiveness. For example, technological innovations tend to respond to the existing or potential demand in the market place (Schmookler 1966, Lundvall 1985). On the other hand, supply side factor such as demanding institutional regulations and intensive competitive rivalry have been identified as significant determinants of technological innovation (Porter 1990; OECD 1996). Mainly for these reasons, some economic theoreticians have been intensely critical of the concept of national competitiveness. However, these problems should not lead to the abandonment of the concept. One reason is that the idea behind national competitiveness is intuitively sound and simple: people care about how well they do compared to others, individually as well as collectively as a nation (Fagerberg, 1996). It is the method of comparison that can be modified to make it more robust. Another reason for the relevance of this concept is that there is still need for policy formulation at the macroeconomic level that would increase competitiveness at the microeconomic level. While firms would be the ultimate beneficiaries of such policy, proper analysis and design requires intermediate targets. Therefore, the concept of competitiveness must somehow be extended to a more aggregate level without encountering the aforementioned difficulties. Competitiveness is a concept which links the macroeconomic and microeconomic view of social-economic development. By comparing the European countries the major focus has been on identifying differences at the micro-level (labour market, entrepreneurship, knowledge creation). The microeconomic view is also becoming more important for the SEE region after EU enlargement. The macroeconomic view of competitiveness originates from Ricardo's (1817) comparative advantage theory and Heckscher-Ohlin's (1933) factor proportions theory. Here, the classic postulation is, comparative advantage in price determines the success of a nation in trade. A country produces and exports those goods and services in which it has comparative advantage over others

in terms of price. The Ricardian theory assumes that international differences in the productivity of labour due to differences in production technologies are the reason for cross-country differences in comparative production costs/prices. The Heckscher-Ohlin theory stresses differences in factor endowments (land, capital, labour). Since, many other variables have been found to matter. These include levels of technology (Fagerberg 1988, Rosenthal 1993), capital (Young, 1981, Ray 1995), skill differences of labour (Reich 1990, Strange 1998), entrepreneurship (Lee, Peterson 2000) differences in productive capabilities (Cohen, Zysman 1987, Fagerberg 1988), factor conditions and industry competition (Ohmae 1985, Porter 1990), government policy and expenditure (Nelson, Winter 1985) and globalization and the influence of multinationals (Dunning 1993, Krugman 1994).

3. WEF'S COMPETITIVENESS INDEXES

The popularity of the idea of international competitiveness was further enhanced with the construction of the competitiveness index by the World Economic Forum, which is published in The Global Competitiveness Report. A similar index is prepared by the Institute for Management Development and published in the World Competitiveness Report. However, because of the similarity of the two indices-they had at one time been a single outfit-and the lack of a detailed methodology from the IMD, only the GCR index is discussed. The GCR index is evaluated using three major criteria. The Global Competitiveness Index is broken down into three constituent indexes each representing one of the three pillars: the Macroeconomic Environmental Index (MEI), the Public Institutions Index (PII), and the Technology Index (TI). The WEF invoke several important assumptions in constructing these indexes. First, they separate the countries into two categories: core innovators and non-core innovators. Core innovators are the more technologically advanced countries. According on WEF, technological innovation is more important to the economic growth of coun-

tries at or close to the technological frontier. Therefore they classify countries as core innovators if technological innovation is more critical for growth. To separate core innovators from non-core innovators they count the number of U.S. utility patents (patents of innovation) each country has per capita, for the most recent year. Countries with more than 15 million people are classified as core innovators, while all others are classified as non core. Therefore, to reflect this difference between the core and non core economies, the WEF uses a different formulas to construct the GCI. It is clear that the WEF is attempting to provide advice to governments, business leaders and others about the relative economic growth environment of as many countries as they can. Their aim is to identify those countries with the right macro-economic environment, technology readiness and economic institutions in place that enhance economic growth, while also identifying those countries that fall short of best practice. To that end the calculation of the GCI and its component indexes and sub indexes has merit. However, since these index scores are used to rank countries and create league tables then a closer look at the technical aspects of exactly how the various indexes are constructed must be undertaken.

One way to evaluate the qualitative competitiveness of CEE countries is to illustrate the competitive environment framework with the data for CEE economies and some European countries. The factors in the proposed framework are index measures calculated from perceptual variables collected by executive surveys. In order to calculate rankings of factors of competitive environment framework for selected countries we will use The Standard Deviation Method, which can accurately assess the relative difference between countries performance. The method is also used in both competitiveness reports to calculate overall, factor and sub-factor rankings of competitiveness. The standard deviation for each country will be computed. Finally standardized values were computed for each country by subtracting the country's average form the country's original ranking and then dividing the re-

sult by the standard deviation. Accordingly, we used the following equations:

$$S = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} \quad (STDvalue)_i = \frac{x - \bar{x}}{S}$$

Legend:
 X: original value
 N: number of countries
 S: standard deviation

Growth Competitiveness Index (GCI) is composed of three pillars all of which are widely accepted as being critical to economic growth: the quality of the macroeconomic environment, the state of a country's public institutions, and, given the increasing importance of technology in the development process, a country's technological readiness (WEF, 2005).

Table 1: COMPETITIVE POSITION OF CEE COUNTRIES ACORDING ON GROWTH COMPETITIVENESS INDEX

	Growth Competitive-ness Index	Technology Index	Public In-stitutions Index	Macroeco-nomic Envi-ronment In-dex
Slovenia	33 (4,75)	26 (4,71)	31 (5,28)	39 (4,26)
Hungary	39 (4,56)	29 (4,66)	37 (5,07)	55 (3,95)
Czech R.	40 (4,55)	19 (4,88)	51 (4,56)	41 (4,22)
Slovakia	43 (4,43)	28 (4,67)	49 (4,64)	54 (3,98)
Poland	60 (3,98)	45 (4,19)	80 (3,70)	51 (4,05)
Croatia	61 (3,94)	46 (4,15)	76 (3,86)	59 (3,81)
Romania	63 (3,86)	47 (4,13)	74 (3,94)	71 (3,50)

Source: WEF 2005, The Global Competitiveness Report 2004-2005

Among CEE countries Slovenia ranks highest from the view of Growth Competitiveness Index. On the second place is Hungary and on the third Czech R. Romania ranks on the last place among CEE economies. By technology index rank Czech R (19) and Slovenia (26)

on the top among CEE economies. It is normal that enlargement process have forced the public institutions and macroeconomic environment to become better. Slovenia ranks very high from this criteria. On the other side Romania lags behind other CEE economies, especially from the view of macroeconomic environment. The standard of living is determined by the productivity of a nation's economy, which is measured by the value of goods and services produced per unit of its human capital and natural resources. The central issue in economic development is how to create conditions that will facilitate rapid and sustained productivity growth. Stable political and legal institutions and sound macro-economic policies create the potential for improving national prosperity. But wealth is actually created at the micro-economic level in the ability of firms to create valuable goods and services productively to support high wages and high returns to the capital employed. Political and legal institutions, coupled with macro-economic policies, set the context; yet, prosperity depends on improving a nation's capabilities on the micro-economic level.

Table 2: COMPETITIVE POSITION OF SEE COUNTRIES ACCORDING ON BUSINESS COMPETITIVENESS INDEX

	Business Competitiveness Index	Company operations and strategy ranking	Quality of the national business environment ranking
Slovenia	31	27	33
Hungary	42	48	38
Czech R.	35	31	37
Slovakia	39	41	39
Poland	57	47	64
Croatia	72	72	70
Romania	56	61	57

Source: WEF 2005, The Global Competitiveness Report 2004-2005

Among CEE countries the Slovenia and Czech R. rank highest from the view of Business Competitiveness Index. Romania ranks higher than Poland and Croatia. If we observe the company operations and strategy ranking can be seen that Slovenia ranks on the first place. Croatian's companies rank on the last place. Romanian place (61) is not satisfied compared to other CEE economies. The micro-economic foundations of productivity rest on two inter-related areas: the sophistication with which companies compete, and the quality of the micro-economic business environment. Companies, ultimately, set the level of the national productivity, and their ability to upgrade is inextricably intertwined with the quality of the national business environment. More sophisticated strategies by companies require improved infrastructure, more advanced institutions, higher-skilled people, and better incentives. In addition to the government, many other institutions in an economy also play a role in the economic development. Universities, schools, infrastructure providers, standard-setting agencies, and myriad others contribute to the micro-economic business environment. Such institutions must not just develop and improve, but also become more connected with the economy, and better linked with the private sector. Finally, the private sector itself is not only a consumer of the business environment, but can – and must – play a role in shaping it. Individual firms can take steps such as establishing schools, attracting suppliers, or defining standards that not only benefit themselves, but improve the overall environment for competing. Collective industry bodies, such as trade associations and chambers of commerce, also have important roles to play – in areas such as improving infrastructure and upgrading training institutions – that are often recognised.

4. CONCLUSIONS

In the enlarged European union is interesting to evaluate the competitiveness of CEE countries. Slovenia, Slovakia, Czech R. Romania and Hungary are located in Central Europe. These countries have the same historical backgrounds. The well develop classical infrastrucure and good educational system can be explained through historical reasons. One way to evaluate the qualitative competitiveness of CEE countries is to illustrate competitive environmental frameworks using the data for CEE economies and some European countries. The factors in the proposed framework are index measures calculated from perceptual variables collected by executive surveys. In order to rank factors of competitive environmental frameworks for selected countries we use the Standard Deviation Method, which can accurately assess the relative differences between countries' performances. The method is also used in competitiveness reports to calculate overall, factor and sub-factor rankings of competitiveness. Indexes give as a picture of the competitiveness position of selected group. Transition process and adoption of Acquis Communautaire have increased come differences among CEE countries. Among CEE countries Slovenia ranks highest from the view of Growth Competitiveness Index. On the second place is Hungary and on the third Czech R. Romania ranks on the last place among CEE economies. By technology index rank Czech R (19) and Slovenia (26) on the top among CEE economies. It is normal that enlargement process have forced the public institutions and macro-economic environment to became better. Slovenia ranks very gigh from this criteria. On the other side Romania lags behind other CEE economies, especially from the view of macroeconomic environment. All hypothesis in the article stand.

The competitiveness evaluation of CEE countries by typical factor input combination shows that Estonia rank well by marketing driven industries and also by technology driven industries. Hungary has the best position by technology driven industries. If I observe the tech-

nology driven industries, marketing driven industries and capital intensive industries I realise that Slovenia and Czech R. have negative balance to EU-15. On the other side CEE countries ranks well by mainstream and by labour intensive industries. According on the export structure all CEE countries laggs behind EU. In Slovenian export strucure can be seen that are labour intensive industries in well position. On the other side Slovenia laggs by capital, marketing and technological intensive industries. It is important to observe the knowledge level in industrial sector. Hungary has the lowest gap to EU by white-collar high-skill. Czech R. is in better position compared to Slovenia. Estonia ranks vely in the group white-collar low-skill. According on the export structure compared to EU-15 only Estonia and Hungary have a better position in the group white-collar low-skill. CEE countries are still close form the view of competitiveness evaluation.

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