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National and Regional Competitiveness in the Crisis Context. Successful Examples

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Abstract. *The paper addresses the issue of national and regional competitiveness in the context of socio-economic and financial crisis. Competitiveness is a complex concept which can be studied at both the firm and the local and national level.*

Thus, in economic terms the competitiveness is most often associated with the productivity or efficiency with which inputs are transformed into goods and services. As for the regional competitiveness it should be analyzed in terms of results (revenue, employment) and in relation to its determinants: ranging from the classical production factors (capital, labour, technological progress) to the "soft" factors (human capital, research and development, dissemination of knowledge).

The current economic environment has revealed that countries such as China, India, Brazil and also the Czech Republic and Poland, following prudent economic policies, have managed to make from macroeconomic stability, investment in education and research some of their major drivers of economic growth.

Keywords: competitive advantage; competitiveness; labour productivity; economic growth; determinant factors.

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1. National and regional competitiveness. Definitions and main features

From the launching of "competitive advantage" paradigm by Porter, the notion of competitiveness has gained importance and new meanings, being related to terms such as productivity and welfare.

Currently, it can be noticed the researchers in this field interest in highlighting the specific features of competitiveness compared to a more established concept – competition.

Thus, Turok (2004), in his paper entitled *Cities, Regions and Competitiveness,* emphasizes the importance of the competition for firms development:

- It acts as a *selection mechanism*. Only certain companies survive on the market (those which have better products and more efficient production processes);
- It acts as a *mechanism that stimulates* firms to improve the technology and organization.

Moreover, the author mentioned above underlines the difference between the competition at firm level and the competition that exists between regions, which does not operate by the same rules: *cities and regions can not fail if they are not competitive and, at the same time, they don't have as main objective the profit*.

Summarizing these aspects related to competition and competitiveness, Kitson, Martin, and Tyler (2004) define competitiveness as "a complex concept which focuses more on the indicators and dynamics of region or town long-term prosperity, rather than on more restrictive notion of competition on market shares and resources", "being a concept which recognizes that, ultimately, competitive regions and cities are places where both firms and people wish to settle and invest".

Meanwhile, the specialists interest shifted from defining and understanding the national competitiveness to its regional dimension, taking into account the main drivers: Porter (1998-present), Cambridge Econometrics (2003), Budd and Hirmist (2004), Kitson, Martin and Tyler (2003, 2004), Huggins (2004), Boddy and others (2005), Van Ark (2006) etc.

However, studying the regional competitiveness implies understanding the notion of national competitiveness. But, defining this latter concept has proven over time to be a difficult task because of the complexity of the term, its many facets and the perspectives from which it can be viewed. Therefore, a great number of researchers from public or private institutions have formulated definitions of the competitiveness' notion (Table 1):

Table 1

Defining national competitiveness

Definition	Source
Competitiveness is the ability of a nation to produce, under free and fair market conditions, goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term.	OECD
A field of Economic theory which analyses the policies and facts that shape the ability of a nation to generate and maintain an environment that sustains more value creation for its enterprises and more prosperity for the its people.	IMD - World Competitiveness Yearbook, 2003
The ability to achieve success on international markets in order to raise the living standards of the entire nation.	National Competitiveness Council - Ireland
The set of factors, policies and institutions that determine the productivity level of a country.	World Economic Forum, Global Competitiveness Report, 2007
The sustainable growth of the living standards of a nation or region while achieving the lowest level of involuntary unemployment.	European Competitiveness Report 2007

Source: Our processing after Garelli, S., *Competitiveness of nations: the fundamentals*, IMD World Competitiveness Yearbook – 2006, http://www.gcr.weforum.org/: Explore the Report, ***Commission of the European Communities, *Raising productivity growth: key messages from the European Competitiveness Report 2007*, Commission staff working document, accompanying document to the Communication from the Commission, Brussels, 2007.

Indeed, policy makers at all three levels: national, regional and local have set competitiveness as major objective of their activity. Thus, competitiveness is an important criterion of the assessments of advanced economies made by the international institutions, a concern of the European Commission in the context of the increasing gap between EU and US performances and a measure used by Member States to compare their performance with those of their competitors (Cambridge Econometrics, 2003).

Gradually, the specialists attention shifted from the competitiveness of nations to regional competitiveness, with an increasingly broad consensus on the role of regions as "key location for organizing and managing economic growth and wealth creation" (Kitson, Martin, Tyler, 2004).

The easiest way to define regional competitiveness is to relate it to "the success with which regions and cities compete with each other in order to gain some shares of the domestic or international markets" (Kitson, Martin, Tyler, 2004).

The same approach which focuses on export business performance can be found in Storper's definition of urban competitiveness and in the European Commission definition of regional competitiveness, being determined by the regions feature to be more open to trade than the nations.

From these definitions of regional competitiveness it can be drawn the main features of this concept (Sepic, 2005, Sala-i-Martin et al., 2008):

1. It is a concept that includes both a *static dimension* (regional competitiveness represents the ability to maintain a high level of income and employment) and a *dynamic* one (determines the investment return, a central element for a lasting economic growth);
2. It implies in the first place the growth of the real income but it can not be underestimated the importance of the *sustainable development*, the environmental and social problems;
3. It involves the *creation of jobs* being important not only the number of the new jobs but also their quality and the capacity to contribute to the rise of the living standards;
4. It entails the production of goods and services in free and fair market conditions, which means providing an environment where there is *real competition* between domestic and foreign products;
5. It supposes creating *a regional environment* (the specific features of a region) which becomes a determinant of competitiveness, because it influences the performance of all businesses located there.

Therefore, in the paper entitled *A Study on the Factors of Regional Competitiveness* (Cambridge Econometrics, 2003) the definition of regional competitiveness is approached from two different perspectives, being emphasized the assumptions and limitations of each approach (Table 3).

Table 3

Defining regional competitiveness

Definition	Hypothesis	Limits
Regional competitiveness – microeconomic perspective	The firms located in a region, capable to produce goods in a consistently and profitably manner which can face the demands of an open (free) market regarding the prices, quality and so on, would bring identical profits to those of the region.	Companies are striving to make profits and increase productivity, while regional competitiveness must include certain levels of employment.
Regional competitiveness – macroeconomic perspective	Regional Competitiveness is seen as a result of macroeconomic competitiveness.	Certain laws governing international trade does not work at sub-national level. Indeed, the exchange rates are not functioning properly or do not exist at regional level and the capital and labour international migration can be a real threat to the region prosperity.

Source: Cambridge Econometrics**,** *A Study on the Factors of Regional Competitiveness*, A final report for The European Commission Directorate-General Regional Policy, University of Cambridge, 2003.

For Porter, the first author who has proposed a model of competitiveness, this is the only source of productivity or efficiency with which inputs are transformed into goods and services.

Summarizing, to give a comprehensive understanding of the competitiveness concept, this must be defined both in terms of:

- *results* – competitive regions are those that ensure the maximization of the objectives of individuals and businesses located here: high income (wages, profits), employment, environmental quality, etc.;
- *drivers* for these outcomes: labour force, physical and human capital, technological progress, etc.

This way the relevant factors for certain regions can be identified and their impact on economic performance can be quantified.

2. Measurement possibilities

One of the indicators most commonly used in studies and researches that are intended to assess the competitiveness is GDP per capita. This indicator can be used alone or by factorial split into several components, following the formula (Cambridge Econometrics, 2003):

GDP/Total population = GDP/Total hours worked × Total hours worked/Employment × Employment/Working age population × Working age population/Total population

Per capita gross domestic product (GDP/capita) – as a measure of social welfare – is considered the main result of competitiveness factors. Among these, labour productivity and employment are the main drivers, but interesting is the impact of others factors (eg. hours worked and age structure of population).

Other ways of decomposition of the indicator GDP per capita, which capture the influence of different factors, can be:

GDP/Total population = GDP/Employment × Employment/Work resources × Work resources/Total population

or:

GDP/Total population = GDP/Employment × Employment/Active population × Active population/Total population

or, in a form that summarizes the main sources of competitiveness:

GDP/Total population = GDP/Employment × Employment/Total population

Factors decomposition is not completely independent and a number of correlations can be highlighted between them. For example, a link between labour productivity and employment rate: there are regions which use a qualified workforce and are highly productive, achieving at the same time higher and higher rates of employment (Kitson, Martin, Tyler, 2004).

Regarding the economic productivity this represents the efficiency by which goods and services are produced, based on a given set of inputs such as labour and capital. Labour productivity can be measured at the individual level, firm level and for different geographical areas as output per person employed. It depends on factors such as technical efficiency of capital and labour endowment.

Even if labour productivity is considered a useful indicator to characterize the regional competitiveness, however, accurately measuring it raises a number of issues relating to (Kitson, Martin, Tyler, 2004):

- Choosing between two indicators: the labour productivity, which can be corrected to take into account the number of hours worked and total or multifactor productivity (TFP);
- Measuring the output obtained in services and government sector;
- Estimating and interpreting regional TFP, giving that the necessary data are not available at sub-national level and to estimate regional production functions is often difficult;
- Using together with productivity the regional employment rate, another important indicator of regional competitiveness.

Currently it is worth noticing that more and more specialists propose in order to assess competitiveness through its main source – labour productivity, to quantify the impact of different types of inputs on the production process. Some of these factors can be measured easily, but for others the lack of the necessary data requires a multifactor analysis of performance.

3. Competitiveness's main drivers

As shown in the definitions of competitiveness, this concept can be seen in terms of results and main drivers.

Under the second approach, it should be noted that empirical studies conducted on regional competitiveness can be organized around two distinct approaches: first analyzes *regional competitiveness as the result of the cumulative action of several factors* (European Commission, 1999-2007, ECORYS-NEI, 2001, IMD, 2005-2007, WEF, 2005-2008) and the second focuses on *specific determinants of competitiveness*: clusters, demography, migration, hard/soft factors of the location, the business environment and inter-firm relations, institutional capacity and government quality, innovation/ regional innovation systems (Constantin, Banica, 2007).

From the viewpoint of the first approach it is relevant the *Competitiveness tree model* proposed by ECORYS Groups, which associates the determinants of competitiveness with the following items: special skills, innovation, connectivity and entrepreneurship (tree roots), industrial structure and productivity (trunk). These components are support for achieving competitiveness and achieving results such as: employment and income, investment, profit, taxes and contributions (the tree's braches).

Moreover, with the development of the new theory of economic growth – endogenous growth theory – based on assumptions different from those of the neoclassical model of growth (technological progress is endogenous to growth process, the accumulation of knowledge determines increasing returns, human capital is another factor of production together with physical capital and labour, markets do not automatically generate the optimum and so on), the vision on the determinants of competitiveness has changed gradually, from the importance attributed to the classical production factors to so-called "soft" factors.

Factors identified as *key drivers* in this theory: expenditure on research and development, innovation (patents), education level, expenditure on investment in human capital (education, lifelong learning), effective dissemination of knowledge (knowledge centres) have significant implications on regional competitiveness (Cambridge Econometrics, 2003):

- Regional differences in terms of productivity and economic growth can be considered as resulting from the differences in technology and human capital.
- Improving technology and human capital is the engine of economic growth.
- Investment in research and development is crucial.
- Improving human capital (through education and training) is a measure of great importance.

Thus, the European Union has focused on increasing its economic performance through the goal of creating an environment capable to create added value and welfare. This has become a key determinant of competetiveness by features such as: availability of financing, quality of administrative and legislative framework, the opening and functioning of markets, entrepreneurship, human capital, innovation and knowledge dissemination, information and communications technology, sustainable development.

Thus, innovation has become, in the context of knowledge-based economy, a key element being considered the main driver of sustainable economic growth (Table 4).

Therefore, the theories of economic growth in general and the neoclassical model and endogenous growth model in particular offer the necessary scientific support to identify the combination of factors that determine the success of regions. Among these of great interest are the drivers of the knowledge economy: investments in education, innovation capacity, upgrading information infrastructure, etc.

Table 4

Competitiveness factors in the EU Member States

EU States	Competitiveness factors	Source
Great Britain	Productivity, investment, innovation, skills, enterprise, competition	Department for Business Enterprise & Regulatory Reform, *UK Productivity and Competitiveness Indicators*
Ireland	Adequate physical infrastructure, highly educated population, lifelong learning and research, a legal and a tax system that encourages the entrepreneurship, competition and innovation.	Annual Competitiveness Report 2006, Volume 1: *Benchmarking Ireland's Performance,* National Competitiveness Council
Czech Republic	Five pillars of competitiveness: the quality of institutions, structural competitiveness, innovation performance, the quality of human resources, macroeconomic performance and stability.	Czech Republic Competitiveness Yearbook 2006 -2007
Hungary	Basic conditions of regional competitiveness: income, labour productivity, employment and openness; Factors driving the improvement of competitiveness: research and technological development, infrastructure and human capital, FDI, SMEs, institutions and social capital; Determinants of success: social structure, decision-making centres, environment, regional identity, economic structure, innovative activity, regional accessibility, employment qualification.	Lengyel, I., *Economic growth and competitiveness of Hungarian regions,* RSA Conference, Pisa, Italy, 2003
Poland	Two categories: goods and institutions, competitiveness depending on the availability of resources (labour and capital, technology and innovation), their allocation (productivity) and factors quality: political, social, business environment and economic policy.	Maryenna A., W., (editor), *Poland Competitiveness Report 2006. The roll of innovation,* World Economy Research Institute, Warsaw School of Economics

EU States	Competitiveness factors	Source
Romania	Infrastructure (prerequisite of sustainable development), human resources (higher qualifications and lifelong learning are essential to develop the knowledge economy: research and development, innovation, entrepreneurship), PPP (indispensable for the implementation of the results of research and development and the absorption of structural funds), industrial clusters (engine of growth and high technology utilization).	IER, *The competitiveness of the Romanian economy: adjustments for achieving the objectives of Lisbon Agenda*, Strategy and policies studies, 2006

4. Successful examples

Currently, most developed countries are struggling to overcome the recession, being forced to face the problem of accumulated debt sustainability and the need to ensure stability and efficient functioning of the financial markets. These problems are accompanied by a rising unemployment and the reduction of domestic and external demand for goods and services. These problems could jeopardize the chance for a sustainable recovery and a long-term competitiveness.

On the other hand, the emerging states have a different situation. For the year 2010 the International Monetary Fund has predicted a growth rate of 6.25%, compared with only 2.25% for developed countries (Sala-i-Martin et al., 2010).

These states which managed to cross the crisis with growth rates between 5.5 and 10% are considered the future engines of global growth: Brazil, China and India (WEF, 2010).

In the meanwhile in the Competitiveness Report 2010-2011, published by the World Economic Forum, the most competitive countries proved to be Switzerland, Sweden and Singapore. The drivers of these countries success include the special capacity for innovation and sophisticated business culture. For example, in *Switzerland* research activity is included in processes and products very well anchored in the market.

Sweden has enjoyed the benefits of the most efficient and transparent public institutions and the lowest levels of corruption. In addition, *Singapore* is on the first place in terms of efficiency of goods and labour markets and second place in terms of financial market sophistication.

China is among the countries whose performance remained stable in 2010 ascending two positions in the overall ranking. The main competitive advantages are the country's market size, the macroeconomic stability and the business environment increasingly innovative and complex.

A similar situation has *India* and *Brazil*, the latter bearing positive transformation in terms of macroeconomic stability, openness and liberalization of economy, income inequalities reduction etc.

Among the countries of Eastern Europe, the *Czech Republic* and *Estonia* remain the most competitive. Their successful model is based on a high-performing system of education, very well developed markets and a good preparation for adopting high technologies.

Another successful example is *Poland*. It has ascended seven places in this year ranking. Its strategy for dealing with the crisis was a success based on prudent economic policies and increasing the size of the internal market. Among the strengths it can be mentioned the high standards established for the education system and the development of the financial sector.

Conclusions

The economic and financial crisis has forced the states and the regions to find solutions adapted to the global economic climate characterized by uncertainty, risk and fragile macroeconomic equilibrium and to develop strategies to ensure a sustainable economic growth.

In this context, the knowledge of the factors and mechanisms that determine the higher competitiveness of some countries even in the current global climate can be a source of learning for countries in difficulty.

Thus, in 2010 in terms of competitiveness Romania remains deficient, being forced to solve a series of problems which affect the ability of the national and regional business environment to ensure long term growth: access to finance, poor infrastructure, bureaucracy, government inefficiency and tax system.

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