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INTERNATIONAL COMPETITIVENESS OF REPUBLIC OF MOLDOVA: COMPARATIVE ANALYSIS

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Abstract:
The present paper studied the issues of increasing the competitiveness of specific countries within the context of the post-crisis period.. Among the best known and mostly used models is the one from the World Economic Forum. Furthermore this model helped determine the competitiveness factors and identify the most important of them. The countries of Eastern and Central Europe, the same as Republic of Moldova, and the data for 2010-2013 were chosen for the analysis. On one hand it analyses the econometric dependence of the competitiveness and the dynamics of macroeconomic factors associated with economic growth and standards of living, economic structure, the openness and innovativeness of the economy, as well as the extent and forms of state regulation of the economy, the level of transparency and efficiency of the state apparatus. Thus the accumulated experience in enhancing the competitiveness will definitely be useful to other countries, including the Republic of Moldova, which will go through all the stages of European integration in the foreseeable future.

Key words: *competitiveness, competitive advantages, competitive disadvantages, the pillars of competitiveness, European integration, foreign direct investment.*

JEL classification: F 40 , F 41, F 42, F 47

INTRODUCTION

In recent years, the notion of "competitiveness" is central to the assessment of the countries' positions in the world economy. However, the economic research community has not developed a sufficiently stable view of competitiveness and its determining factors.

The economic science has as an urgent task the identification of the competitiveness level in individual countries. In the view of several economists the competitiveness of a country is based on the competitiveness of various industries and/or enterprises. (Porter, 1990). The competitiveness of a country depends on the competitiveness of enterprises and their products. (Peura, 1979). This approach encompasses foreign trade indicators, such as exports to GDP ratio and foreign trade balance to GDP ratio. A similar opinion is shared by the American scientists D. Dollar and E. Wolf, claiming that a country is competitive when combining the prosperity in international trade on the basis of high technology and performance with high incomes and wages (Dollar, Wolf, 2003).

OECD experts define the national 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, 1996).

The competitiveness is defined as the ability of a country to acquire and maintain a market share in international markets. (Figueroa, 1998). International competitiveness is usually defined in terms of two levels, namely, the firm-industry level and the national level (Moon and Peery, 1995, Dollar and Wolf, 1993, Porter 1990). This categorization, however, does not seem to enclose all the diverse aspects of the concept, especially as it relates to the dynamics of the concept's determinant indicators. For example, competitiveness at the firm level clearly indicates micro level competitiveness, while national level competitiveness reflects the macro level. (Fidel, 2005).

A country's international competitiveness is often judged in terms of its ability to maintain a favourable position in its international (trade) transactions with the rest of the world. This ranges from having a low-cost export production base to the attraction of large inflow of foreign capital. A number of studies assert that a country would be losing international competitiveness if it suffers

from such factors as poor research and development (R&D) record, a growing trade deficit in high-tech products, an ill-trained labour force, and declining productivity. This would indicate an overall weakness in its ability to effectively compete with its trading partners. (Fidel, 2005).

In our opinion, the most important contribution to the study of problems of competitiveness of individual countries was made by the U.S. economist M. Porter - the founder of this field, the author of the theory of competitive advantage. One of the main provisions of his theory is that the competitiveness of the national economy is determined by the maintenance of the labour productivity at a higher level than the competition, through the use of a continuous process of innovation (Porter, 1993). The author notes that the high competitiveness of the country is not achieved in all sectors of the economy, but only in a few, where the country has a competitive advantage.

The competitive advantages at the macroeconomic level represent a high efficiency situation of a country compared to others. Sustainable competitive advantage is achieved when the same profit is achieved at lower cost to the economic entity compared to its competitors (cost advantage), or when there are higher profits compared to those of competitors, on competitive products (differentiation advantage) (Porter, 1990). The competitive advantage offers greater value to the consumer (beneficiary) and at the same time generates a higher profit.

Due to the two types of cost and differentiation advantages, a country can hold a leadership position, whose characteristic is to create a superior value, as a result of using its own resources (patents, trademarks, know-how, good will, brands, reputation etc.) and the capacity to use them efficiently within a system of value chains, positioned horizontally, and even more, vertically.

METHODS AND RESULTS OF THE STUDY

To establish the global competitiveness level of Moldova, within regional and global context, we chose some comparative benchmarks, including Central and Eastern European countries, for 2010-2013, considering that they have a degree of representativeness for the purposes of covering our analysis to determine the size of the gap in competitiveness of the new EU countries from the Central and Eastern Europe that joined in the years of 2004-2007.

The most authoritative comparisons of countries' competitiveness is the research conducted by the World Economic Forum (WEF). With the help of global competitiveness rankings, of this prestigious organization, we can determine the current situation of the country in relation to other countries, we can identify the strengths and weaknesses in the national economy, determine the competitive advantages of national economies, evaluate the effectiveness of economic policy in order to strengthen the position of the global economy.

Since 2005 the World Economic Forum GCI indicator has been used to measure the national competitiveness for many states. GCI includes a multitude of factors, grouped into 12 pillars of competitiveness, with average components weighting the above mentioned indicators, each measuring an aspect of competitiveness. As a national partner of the WEF the author conducted a qualitative research of the quantitative competitiveness of Moldova during 2009-2013, the results being published in Global Competitiveness Reports for the corresponding years. According to the research conducted by the author, the most notable competitive advantages of Moldova, according to its position within the 148 countries compared by the World Economic Forum in 2013, were: most significant competitive disadvantage in the analysed period were recorded on the following indicators.

In 2013, Republic of Moldova modestly occupied the 89th place out of 148 countries in the WEF ranking. Nevertheless, the data in Table 1 indicates that the global economic crises had no appreciable effect on the position of the Republic of Moldova in the WEF ranking, as in 2013 the country has slightly improved its position in comparison with the year of 2010. It has to be noted

that in 2013 Romania occupies the 76th position and Bulgaria the 57th according to their competitiveness level.

Table 1. The Ranks differences of Global Competitiveness Index in 2013-2010

	Rank 2013	Rank 2012	Rank 2011	Rank 2010	Rank differences 2013-2011	Rank differences 2013-2010
Bulgaria	57	62	74	71	+ 17	+ 14
Estonia	32	34	33	33	- 1	+ 2
Czech Republic	46	39	38	36	- 8	- 10
Latvia	52	55	64	70	+ 12	+ 18
Lithuania	48	45	44	47	- 4	- 1
Slovak Republic	78	71	69	60	- 9	- 18
Slovenia	62	56	57	45	- 5	- 17
Poland	42	41	41	39	- 1	- 3
Romania	76	78	77	67	+ 1	- 9
Hungary	63	60	48	52	- 15	- 11
R. Moldova	89	87	93	94	+ 4	+ 5

Source: The Global Competitiveness Report 2010-2013

The disadvantages of the Republic of Moldova, as importance and number, are incomparably higher compared to the competitive advantages. Making note of the fact that in the years of 2010-2013, along with the growth of the number of the competitiveness indicators and of the countries taken into comparison, the position of the Republic of Moldova, according to the global competitiveness indicator, has somehow ameliorated, according to the presented study, we propose the following measures that should guide the attention of policy makers and other stakeholders:

Let's note that the competitiveness of the Republic of Moldova continues to deteriorate in the key area of "good market efficiency". Under this indicator the country ranks 107 out of 148 possible positions, while Romania is on 117 rank and Bulgaria is on 81 rank. In our opinion, this is largely determined by the inefficiency of the ongoing anti-monopoly policy and the burden of customs procedures.

As the studies show, the following factors affect the competitiveness in a negative way: "quality of roads" (148 rank), "state of cluster development" (147 rank), "company spending on R&D" (142 rank), "judicial independence" (145 rank), "brain drain" (137 rank), "agricultural policy cost" (138 rank), "quality of scientific research institutions (132 rank), "availability of scientists and engineers" (131 rank), "extent of market dominance" (133 rank), "efficiency of anti-monopoly" (133 rank), "local supplier quantity" protection (127 rank), and during the past year these figures deteriorated. Furthermore, the Republic of Moldova was among the outsiders on the following competitiveness pillars: "business sophistication" (125 rank), " innovation" (138 rank).

All the above mentioned problems stop the Republic of Moldova from stepping up and using its competitive advantages, such as relatively low level of: "business cost of terrorism" (10 rank), "int'l internet bandwidth" (23 rank), "legal rights index"(28 rank), "general government debt" (29 rank), "flexibility of wage determination" (34 rank), "pay and productivity" (34 rank) "total tax rate" (40 rank),"trade tariffs" (41 rank), and "time required to start a business" (43 rank) .

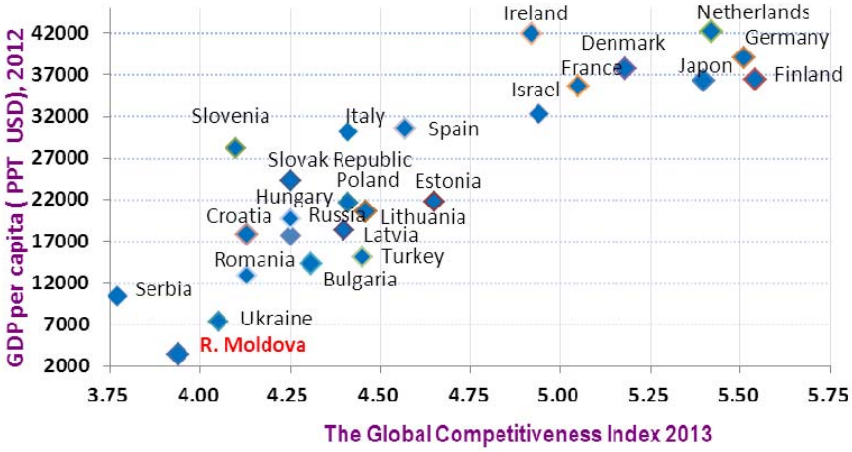

Figure 1. Interdependence of GDP based on purchasing-power-parity (PPP) per capita in US dollars and Global competitiveness Index in 2013

Figures 1 and 2 shows the identified interrelationship trends between the reached competitiveness levels and GDP based on purchasing-power-parity (PPP) per capita in US dollars for individual EU countries, Japon, Israel and Turkey.

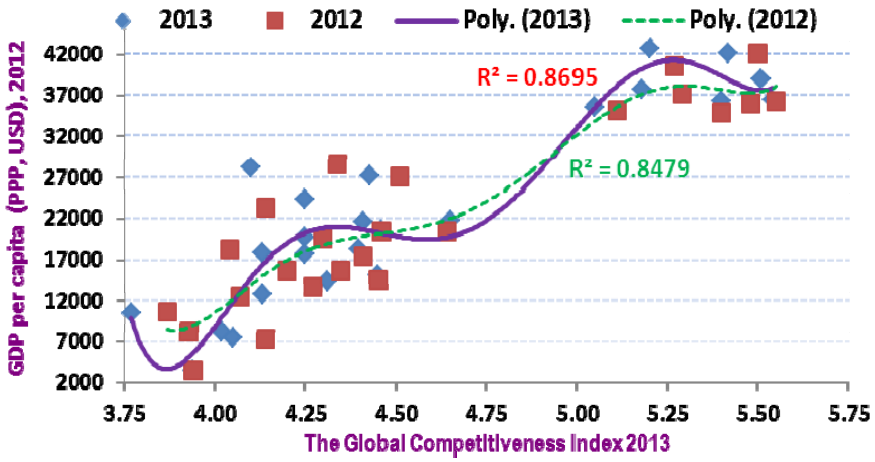

Figure 2. Interdependence of GDP based on purchasing-power-parity (PPP) per capita in US dollars and Global Competitiveness Index in 2013 and 2012.

The specifics of the state economy of the Central and Eastern Europe states, including the Republic of Moldova, is that along the sustainable development issues they are closely related to European or regional integration. Moldova's political vector is oriented to the European Union, and therefore the country's development in the future will mean development through integration. Thus, on the one hand, it requires a continuous measurement in dynamic of the real convergence to EU economic space and, on the other hand, there is the need to develop the methodology for the assessment of the sustainable competitiveness of the country. Based on these considerations a new concept for the measuring of the competitiveness is described below.

The developed methodology focuses on the comparative studies by inclusion of Moldova in a specific action (plan of reforms in transition, international projects, marketing strategy for EU integration, regional cooperation, etc.) and taking into consideration the pro-European aspirations of the Republic of Moldova, within this methodology the comparison with the EU economic parameters is performed in the first place, ie they serve as a benchmark for the economic and social development of the Republic of Moldova, and "away from the standard" category is used as a measurement criterion for the sustainable competitiveness and hence the convergence / divergence of the community structures.

Such an approach defines a new metric of competitiveness, it interposes it in the process of

economic convergence evaluation, and furthermore it is part of the common set of valuesof the European space: high quality of life, social protections, partnership, cohesion, dialogue, sustainable growth, appropriate environment, etc. The most popular models in the field (in the original notation) that have ties with the methodology discussed in this study are presented below. It has to be mentioned that all of these start from the formula f_{OWA} suggested by R. Yager (Yager, 1994) at the end of the 80's, based on the weighted averages w_i of the economic indicators x_i:

$$f_{OWA}(x_1, \ldots x_n) = \sum_{i=1}^{n} w_i * x_i, \quad w_i \in (0,1], \quad \sum_{i=1}^{n} w_i = 1,$$

using it J. Sachs introduces the concept of Growth Competitiveness Index, later transformed into Global Competitiveness Index by X. Sala-i-Martin, New Global Competitiveness Index by M.E. Porter, Sustainable Competitiveness by Advisory Board on Sustainability and Competitiveness, etc.

Sala-i-Martin Model. X. Sala-i-Martin is the author of the (GCI) ICG – indicator of the global competitiveness, model which includes both micro and macro level factors of competitiveness. GCI includes a multitude of factors, grouped into 12 pillars of competitiveness, with weighted average components of indicators, each measuring an aspect of competitiveness. The measuring unit is the score. Scoring is done separately based on three groups of factors: essential, efficiency, innovation, each group being limited from above as a share of state economic development of the country, respectively it is mainly based on the production itself, production efficiency or innovation. For example for Moldova, as a member of the group of states at first stadium development, these determinants are crucial.

As a result the formula shows:

$$GCIR._{R.Moldova} = 0.6*Basic_{R.Moldova} + 0.35*Effciency_{R.Moldova} + 0.05*Innovation_{R.Moldova},$$

Basic Efficiency Innovation deals with the numeric value for the weighted average of indicators of production groups, efficiency and innovation at the level of national economy, calculated based on the statistical data, resulted from surveys results or derived from the data of the two previous sources. Literature distinguishes the following groups of key factors for different stages of economic and social development of countries, namely:

Indicators (factors)

1. Stage where the economy is dominated by production factors

Basic requirements: institutions, infrastructure, macroeconomic stability, health and primary education

2. Stage where the economy is dominated by efficiency factors

Efficiency enhancers: higher education and training; labour market and products efficiency, financial market sophistication, technological readiness, market size

3. Stage dominated by innovation

Innovation and sophistication factors: Business sophistication, innovation

Porter Model. M.E. Porter introduces the concept of the New Global Competitiveness Index (New GCI), aiming to create a single integrated index that would replace those of the previous model. The author hopes to evaluate more adequately the determinants of productivity, a special emphasis being made on the role of clusters in the economic growth. The measurement unit is the GDP per capita**.** Indicators are grouped as follows: economic performances at the macro, middle and micro level of business, institutional policies, fiscal and monetary policies, and infrastructure.

Krugman Model. By definition, the economy of an entity can be characterized by a set of indicators, denoted by the vector x, the vector is determined by a certain structure, which is not always the desirable one. As a result of implementation of the governmental or regional economic policies, the economic indicators of the entity change, this will be the vector y, which already has another structure, often called standard, target vector or standard structure. Logically, the problem

of quantitative assessment of structural changes of the vector x appears, i.e. this vector components approach those components of the vector y. The assessment of the convergence process, sector, economic activity or economy overall here has been based on an analysis or, more generally, on the comparative economic research. The comparative analysis allows us to perform the modern economic research pretty thoroughly, very realistically, and the comparative tool has become a strong support of analysis and forecasting.

CONCLUSION

According to the research conducted by the author, the most notable competitive advantages of Republic of Moldova, according to its position within the 148 countries compared by the World Economic Forum in 2013, were: most significant competitive disadvantage in the analysed period were recorded on the following indicators: business sophistication and innovation. The disadvantages of the Republic of Moldova, as importance and number, are incomparably higher compared to the competitive advantages. Making note of the fact that in the years of 2010-2013, along with the growth of the number of the competitiveness indicators and of the countries taken into comparison, the position of the Republic of Moldova, according to the global competitiveness indicator, has somehow ameliorated, according to the presented study, we propose the following measures that should guide the attention of policy makers and other stakeholders:

- Regular monitoring and analysis of the place Moldova occupies according to the global competitiveness indicator, as well as the 12 component groups of indicators (pillars) so that, by their corroboration their priorities, emergency measures, as well as coherent measures with a strategic character of the government, for the long-term performance of the national economy, can be based;
- Calculation of the global and partial competitiveness indicators at a regional level (there are 4 development regions in the Republic of Moldova) in order to be able to identify the weakest performance zones in the regional profile, to establish priorities and act on the causes of underperformance;
- Making our own calculations of competitiveness indicators and sub-indicators at the national level, based on the development of a appropriate new model, through the comparison of the results with the indicators calculated by the World Economic Forum;
- Performing researches and specialised studies regarding the competitiveness metrics and state in the Republic of Moldova, compared to EU candidate countries in priority areas, such as: foreign trade, information and communication technologies, sustainable development and environmental protection, research, development and innovation, education and health, efficiency of public administration, foreign trade, tourism, etc..

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