Bulletin UASVM Horticulture, 68(2)/2011
Print ISSN 1843-5254; Electronic ISSN 1843-5394

Real Convergence of Central and Eastern Europe Economic and Monetary Union

Roxana PIRVU, Mihai BUDURNOIU

University of Craiova, A. I. Cuza no. 13, 200 025, Dolj, Romania
roxanamariapirvu@yahoo.com

Abstract. This paper treats the problem of real convergence, that although in the Maastricht Treaty is expressly provided, should not be neglected, but represents the objective to which the policies of the countries of Central and Eastern Europe must be subsumed. We analyzed a series of statistics to highlight the extent to which Central and Eastern European states were able to reduce the gap with the developed countries members of the EMU. Thus, we considered that the real convergence can be appreciated by comparing GDP per capita average monthly wage, the poverty rate, the contribution of the main economic sectors to GDP and unemployment. From the statistics we found that the highest degree of real convergence plays Slovenia, which has distanced itself than other CEE countries, followed by the Czech Republic. On terms of development throughout the period analyzed CEE countries based on indicators and dynamics of catching speed and performance we can notice the Baltic countries. Unfortunately, Romania and Bulgaria are far behind other CEE countries.

Keywords: real convergence, the evolution of GDP per capita, poverty rate, the main sectors contributing to GDP

INTRODUCTION

To enter in the euro area countries of Eastern and Central Europe and will have to meet the Maastricht convergence criteria. In economic literature the two terms are used to denote convergence usual economies of the European Union: nominal convergence and real convergence. Although the Maastricht criteria are nominal convergence criteria, the Community institutions have repeatedly expressed their firm determination not to accept the euro area countries which have achieved a degree of real convergence.

Nominal convergence concerns the four criteria mentioned in the Maastricht Treaty relating to: the inflation rate, interest rate, debt, budget deficits and exchange rates. Together with the nominal convergence criteria, but without being subject to the Treaty of Maastricht came at the initiative of the European Commission and European Central Bank a number of criteria that go on ensuring convergence of economic structures and cohesion of the Member States and Candidate Countries (IER, 2005).

Regarding the real convergence, we usually mean through this convergence of variables such as GDP / capita, wages and prices, and convergence to be seen through the theory of optimum currency area criteria (Calin, 2004).

Great economists have dealt with real convergence when they referred, on the one hand, to economic development, and on the other hand, the evolution of certain types of activities and / or complex economic sectors with great economic and social impact

(industries based on medium and high technology, services, information and communication technology) and the institutions and economic mechanisms (market structure, distribution of economic outcomes (rent, profit, wages, etc..) regarded as a form of stimulus (Iancu, 2008) .

Economic literature has long examined the relationship between nominal and real convergence, most papers concluding that the two have to be made together. Community institutions insist on the priority to be given to real convergence, while authorities in the countries of Central and Eastern Europe are moving towards meeting the nominal criteria, considering that real convergence is not a condition but a result of accession (Steinbuka 2001). This can be explained by the lack of real, explicit convergence criteria which could make the candidate countries joining the EMU. In this paper we proposed to analyze the degree of real convergence of Romania and Bulgaria as compared to other countries in Central and Eastern Europe.

MATERIALS AND METHODS

The analysis of real convergence implies convergence of real variables, assigning an important role in GDP per capita. In addition to this indicator we considered that the real convergence can be appreciate by comparing the average monthly wage, the poverty rate, the differential growth, the contribution of the main economic sectors to GDP, the unemployment rate. In this article we make a comparison of these indicators in the countries of Central and Eastern Europe to highlight the degree of real convergence of the two countries joined the EU in 2007 Romania and Bulgaria.

RESULTS AND DISCUSSION

To achieve real convergence in the European Union should as least developed countries have higher growth rates of euro area as a whole, so that productivity and price levels to be as close as possible. Although in recent years before the crisis countries of Central and Eastern Europe have experienced a rapid and sustained development process of real convergence of their national economies with the EU economy is far from being realized.

Tab. 1

GDP expressed in PPP/capita (EU=100)

	2002	2003	2004	2005	2006	2007	2008
Bulgaria	31	32	34	34	36	38	41
Estonia	50	55	57	62	65	69	67
Latvia	41	43	46	49	52	56	57
Lithuania	44	49	50	53	55	59	62
Poland	48	49	51	51	52	54	56
Czech Republic	70	73	75	76	77	80	80
Romania	29	31	34	35	38	42	42
Slovakia	54	55	57	60	63	68	72
Slovenia	82	83	86	88	88	89	91
Hungary	52	63	63	63	63	63	64

Source: Eurostat, European economic statistics, page 143

It may be noted that none of the countries of Central and Eastern Europe has a GDP / capita at least equal if not higher than EU average. Slovenia distances itself from all other CEE countries, reaching in 2008 a GDP / capita of 90% of GDP / capita of the EU. It is

followed by the Czech Republic, Slovakia, Estonia and Hungary, a greater increase was registered in Estonia, which started from a lower level. The lowest level is recorded Romania and Bulgaria, but a pleasing aspect is that in these two countries there was an increase of 13 and 10 percent, indicating a fairly rapid recovery of the gap. However, latest data available at European level on the evolution of GDP shows that in 2009 most countries (including EU-27) showed a reduction in GDP over the previous year, as can be seen from the table. 2.

Tab. 2

Evolution of GDP (in percent from the previous period)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bulgaria	4.5	5	6.6	6.2	6.3	6.2	6	-5	0.7
Estonia	7.9	7.6	7.2	9.4	10	7.2	-3.6	-14.1	3.1
Latvia	6.5	7.2	8.7	10.6	12.2	10	-4.6	-18	0.4
Lithuania	6.9	10.2	7.4	7.8	7.8	9.8	2.8	-14.8	2.9
Poland	1.4	3.9	5.3	3.6	6.2	6.8	5	1.7	3.7
Czech Republic	1.9	3.6	4.5	6.3	6.8	6.1	2.5	-4.2	2.1
Romania	5.1	5.2	8.5	4.2	7.9	6.3	7.3	-7.1	-1.1
Slovakia	4.6	4.8	5	6.7	8.5	10.6	6.2	-4.7	3.8
Slovenia	4	2.8	4.3	4.5	5.8	6.8	3.5	-7.8	0.9
Hungary	4.4	4.3	4.9	3.5	4	1	0.6	-6.3	1.4

Source: Eurostat

Table 2 reveals the massive impact that economic and financial crisis has had on the world-wide GDP of the countries of Central and Eastern Europe. Only Poland's economy continued to grow, albeit at a very small percentage, all the other Member States have had contractions in GDP. Hungary, Romania, Slovakia and Slovenia have had a hard hit, and Estonia, Lithuania and Latvia were the most affected, accounting levels between -14% and -18%, although their return is likely to be quite rapid in coming years. Thus, we can appreciate that the current global economic crisis was a real obstacle in the process of catching-up especially in the new EU member states.

Tab. 3

Average monthly income in CEE countries (% of EU average)

	1998	1999	2000	2001	2002	2003	2006	2010
Bulgaria	5.9	6.3	6.9	7.3	7.8	7.8	8.8	9.3
Estonia	16.0	17.3	18.1	18.9	20.3	21.7	27.6	30.9
Latvia	14.6	15.8	16.5	16.2	15.4	14.6	20.9	27.5
Lithuania	14.2	15.4	16.1	17.3	17.4	17.5	21.2	36.4
Poland	19.6	24.6	28.1	32.2	30.8	28.6	30.2	30.6
Czech Republic	20.3	21.0	22.6	24.8	28.4	28.5	32.6	51.5
Romania	8.4	7.4	8.6	9.5	9.7	9.7	15.03	16.5
Slovakia	15.9	14.9	16.0	16.5	17.6	18.6	23.8	24.1
Slovenia	53.4	54.9	55.9	57.0	58.0	55.9	54.1	73.0
Hungary	17.6	18.7	20.1	23.3	28.1	29.1	28.3	41.5

Source: Revue Elargissement, Average salary survey 2010

In terms of average monthly incomes, CEE countries have recorded similar increases registered in terms of GDP / capita. Depending on the average income in 2010, CEE countries can be divided into three main groups as it follows: over 50% of the EU Slovenia and the Czech Republic over 25% Estonia, Latvia, Lithuania, Poland, Hungary and above 25% Bulgaria, Romania and Slovakia.

Since the average value of indicators of income per capita can hide large differences between population, some groups record a higher income, while a larger part of the population faces poverty. Therefore we consider it necessary to look at the same time at the risks of poverty rates in the EU.

Tab. 4

At-risk-of-Poverty-rate

	2007	2008
EU 27	16	17
Bulgaria	20	21
Estonia	20	15
Latvia	21	26
Lithuania	18	20
Poland	15	17
Czech Republic	9	8
Romania	23	23
Slovakia	9	11
Slovenia	11	12
Hungary	10	12

Source: Eurostat

As it can be seen from the table, countries with the highest risk of poverty are Latvia, Romania, Bulgaria and Lithuania, with a risk level at above average rates of Poverty level of EU27. At the opposite pole is Czech Republic and Slovakia, officials explaining that it is the result of protective measures inherited from the communist era.

Tab. 5

Main sectors contribution to GDP (2009)

	Agriculture	Industry	Constructions	Servicies
EU 27	1,7	18,1	6,3	73,9
Bulgaria	6	21,8	8,6	63,6
Estonia	2,7	19,5	6,8	71
Latvia	3,1	13,6	6,5	76,8
Lithuania	4,2	20,4	6,3	69,1
Poland	3,6	23	7,5	65,9
Czech Republic	-	-	-	-
Romania	7	26,4	10,9	55,7
Slovakia	2,6	25,5	8,8	68,3
Slovenia	2,1	23,8	7,6	66,5
Hungary	3	24,9	4,8	67,3

Source: Eurostat

In terms of GDP structure, the three main economic sectors contributing to GDP in CEE countries are similar to the EU - with some differences, with CEE countries where agriculture has a larger contribution in Romania and Bulgaria, or the service sector is less developed, the largest difference being registered by Romania and it is determined mainly by the low level of development of financial services (only 16.8% to 29.1% in the EU27). In terms of employment sectors, stands in some CEE countries more weight of the population employed in agriculture (Romania, Bulgaria, Poland, Latvia, Lithuania, Slovenia) and a lower

share of employment in the tertiary sector (Romania, Bulgaria, Poland) - but the situation of these countries is similar to Portugal or Greece, where there are such differences with the EU average.

Tab. 6

Unemployment in CEE

	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	18,2	13,7	12,1	10,1	9,0	6,9	5,6	6,8
Estonia	10,3	10,0	9,7	7,9	5,9	4,7	5,5	13,8
Latvia	12,2	10,5	10,4	8,9	6,8	6,0	7,5	17,1
Lithuania	13,5	12,5	11,4	8,3	5,6	4,3	5,8	13,7
Poland	20,0	19,7	19,0	17,8	13,9	9,6	7,1	8,2
Czech Republic	7,3	7,8	8,3	7,9	7,2	5,3	4,4	6,7
Romania	8,6	7,0	8,1	7,2	7,3	6,4	5,8	6,9
Slovakia	18,7	17,6	18,2	16,3	13,4	11,1	9,5	12,0
Slovenia	6,3	6,7	6,3	6,5	6,0	4,9	4,4	5,9
Hungary	5,8	5,9	6,1	7,2	7,5	7,4	7,8	10,0
EMU	8,4	8,8	9,0	9,0	8,3	7,5	7,5	9,4

Source: Eurostat, European Economic Statistics, page 207

In terms of unemployment, the situation seems not so different in CEE countries than in the euro area countries. The average unemployment rate in CEE countries is 3% higher than the EMU average, but there are CEE countries which recorded lower rates than the EMU average: Bulgaria, Poland, Czech Republic, Romania, Slovenia. On closer analysis, however, we observed that in some CEE countries, the share of employment in agriculture is very high, while agriculture's contribution to GDP is very low, indicating the existence of hidden unemployment, many persons considered occupied in agriculture are actually unemployed who only practice subsistence agriculture.

CONCLUSIONS

Analyzing the data presentedit can be observed that CEE countries have managed to achieve a real convergence process, but it is less visible than a nominal convergence. The highest degree of real convergence in the end of 2008 had Slovenia, which was far from the other CEE countries, followed by the Czech Republic. On terms of development throughout the period analyzed, CEE countries based on indicators and speed dynamics of catching the gaps we can notice the performance of Baltic countries. Unfortunately, Romania and Bulgaria are far behind other CEE countries. It is true that the convergence process started later in these countries, after they were out of recession Bulgaria in 1997 and Romania in 2000.

Besides the differences noted between the countries of CEE and EU countries, the GDP must be taken into account in assessing the period of time that will be real convergence and its ability to achieve, and factors such as physical capital stock , human quality, the stock of scientific and technological, institutional and cultural framework. These differences require very large investment efforts which less developed countries can not support. Meanwhile, the liberalization of markets and globalization are likely to determine the mobility of production factors and their involvement in ensuring economic growth, but this time, especially in countries with higher economic, scientific and technological potential. That is why decision factos of the European Union understand that real convergence can be achieved only by

simple integration of markets and introduced the concept of economic and social cohesion achieved through structural funds. It aims at developing regions, conversion of areas affected by industrial decline, combating unemployment, promoting professional development of youth and rural development (Sebe and Ionescu, 2006).

Countries of Central and Eastern Europe have provided experience of the older States of the Union, in real convergence, which have previously benefited from cohesion funds, such as Spain, Portugal, Ireland and Greece in order to ensure economic success and integration in economic and monetary union. A good example is Ireland which made an optimal combination of their own efforts, foreign direct investment and structural instruments and managed a quick recovery with positive effects on unemployment differences. At the same time, we must not overlook the example of Greece which did not find the necessary capacity to ensure full and effective use of structural funds or raise funds from public and private sector for development.

For the countries of Central and Eastern Europe becomes clear that the efficiency of implementing the National Development Plans may be the key to achieving real convergence.

Aknowledgement:The paper disseminates the results of Research Project: *Study Regarding the Identification of The Risk and Stimulating Factors of Romania`s Integration in the Monetary Union*, Human Resources Development Operational Programme 2007-201, University research partnership - a step towards a post-doctoral school of the future ", ID 61968

REFERENCES

1. Calin, D. (2004). Thesis on the Implications of European Monetary Unification of Romania, University of West, Timişoara.
2. Iancu, A. (2008). Real Convergence, Working Paper, National Institute of Economic Research, Bucharest, 1:15-18.
3. Sebe, M. and Al. Ionescu (2006). Making EMU and the Need to Converge, IER, Bucharest 18:45-52.
4. Steinbuka (2001). "Latvia on the Way to the European Union: Economic Policy Convergence" 130-131.
5. ***IER (2005). Economic and Monetary Union, Bucharest, 12-13.
6. ***ECB (2010). Convergence Report.
7. ***Eurostat. http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/