CEE COUNTRIES ON THE WAY TO EMU - A GENERAL OVERVIEW

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Abstract: *This paper aims at pointing out the evolution in real and financial plans in order to adhere to the EMU, using a comparative approach, on the example of Romania, the Czech Republic, Poland and Hungary. The main results of the study are the following: the four countries have made notable progress in the years preceding the current crisis; however, considerable efforts are still needed in order to comply with the euro zone, in terms of living standards, economic structure, degree of openness of the economy, etc.; refer the financial convergence, directions are needed to increase the financial intermediation and financial depth in Romania and Poland, the Czech Republic and Hungary recording slightly more favourable indicators. On the other hand, central banks, except the Polish one, should significantly improve the transmission mechanism of monetary policy upon the financial and real sphere.*

Keywords: real convergence, financial convergence, economic and financial crises, EMU
JEL Classification: E20, E40, E58, E60

INTRODUCTION

In order to adhere to the Economic and Monetary Union, the candidate countries must fulfil a number of criteria that highlight nominal convergence with the euro area. However, it should be noted that the reference values of the five convergence criteria (price stability, sound public finances, the convergence durability, exchange rate stability) do not necessarily reveal the state of "health" of the financial and economic climate, which is why it requires a deeper analysis of the characteristics of economic and financial systems.

The importance of an analysis of the effective capacity of states to adopt the single currency derives from the continuous transformations taking place in the financial and economic texture of the countries, under the influences of internal and external factors (such as the current economic and financial crisis), but also of their readiness to give up to the monetary policy autonomy, in the context in which countries such as Romania and not only may still need high flexibility in the use of monetary policy interest rate and exchange rate as adjustment factors.

This article uses as example the study of the economies of the Czech Republic, Hungary, Romania and Poland, taking into consideration the past political regime, similarity of the economies and the conduct of monetary policy.

A specialized study which addresses the four countries that are the subject of this paper is made by Ganev (Ganev et al., 2002) that raises the issue of the monetary policy transmission mechanism on the real economy in countries after a decade of transition, highlighting the vulnerabilities of economies and overloading monetary policy of the Central Bank.

From another perspective, Marie-José Rinaldi-Larribe (2008, p. 283) stresses out that in the last few years, Hungary, Poland and the Czech Republic "appear to have converged more quickly towards the euro area business cycle, which would tend to indicate that they are ready to join the euro area".

In terms of empirical research, specialized studies most often examine the Czech Republic, Hungary and Poland. For instance, in the example of the above states, Darvas (2012) examine the monetary policy transmission mechanism on macroeconomic variables using time-varying coefficient vector auto regressions and highlights the fact that the effects of a shock to the monetary policy is transmitted the fastest in Poland and not much later than in the euro area.

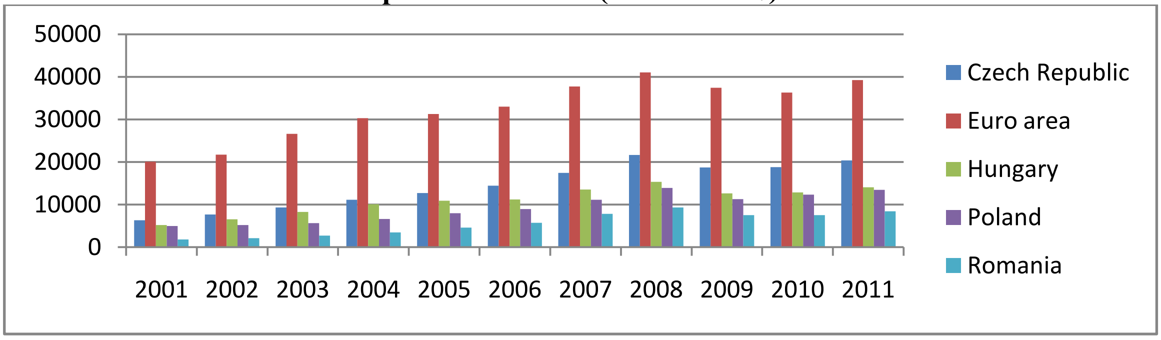
If we consider the implications of the recent economic and financial crisis, in the light of the adoption of the euro in Poland, Hungary, Romania, the Czech Republic and beyond, in the framework of *The Adoption of the Euro in the New European Union Member States: Repercussions of the Financial Crisis*, Allam (2009, p. 33) points out that while the financial crisis has increased the attractiveness of euro zone membership as it is perceived to be a 'safe harbour' in a stormy sea, the currency depreciation and slowdown in economic activities make it more difficult for the new EU Member States to comply with the Maastricht-criteria." This paper presents the following structure: part one is devoted to the analysis of the convergence in the real plan of states chosen for study, and the second section is dedicated to the convergence in the financial sphere. The paper ends with some conclusions and future directions on the research topic.

1. CONSIDERATIONS ON REAL CONVERGENCE IN THE CZECH REPUBLIC, HUNGARY, POLAND, ROMANIA AND THE EURO AREA

Joining the Monetary Union requires the fulfilment of a series of nominal convergence criteria to which reference is made below, but we must stress that the foundation of the convergence must come from the real sector.

Considering the convergence in the real sector, one of the indicators most commonly referred to, is the evolution of the gross domestic product per capita, represented in Figure 1.

Figure 1 - Evolution of GDP per capita in the Czech Republic, Euro area, Hungary and Poland, in the period 2001-2011(current US $)

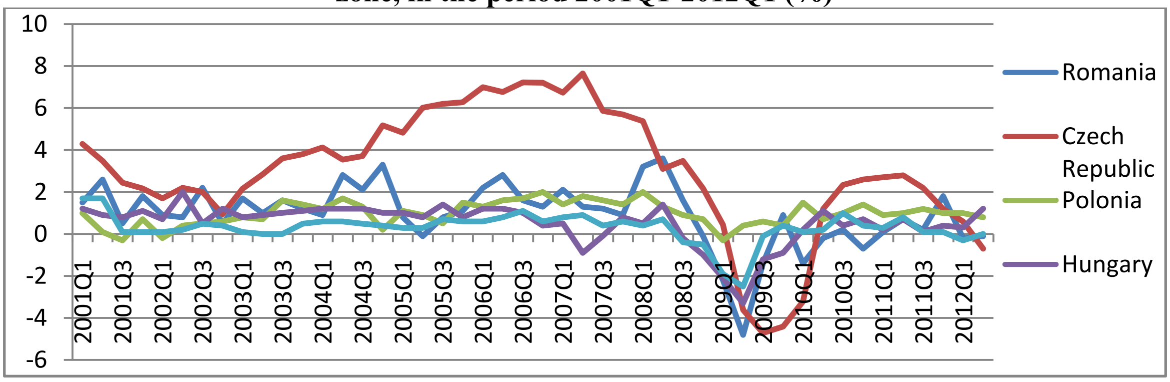


Source: Data processing, http://datamarket.com/

As it can be seen in Figure 1, the four countries have made notable progress from one year to another during the period considered, especially Hungary and the Czech Republic. It should also be noted the negative evolution of GDP per capita in the context of the recent crisis in all states. However, the gap of living conditions compared with the euro area is a significant one, registering the largest value in the case of Romania.

On the other hand, as seen in Figure 2, the overall trajectory of growth rate of the real GDP in the euro area is similar to that recorded in the case of Romania, Hungary and Poland, except for the Czech Republic. At the end of the reference period the latter subscribes in the previously mentioned trend. Moreover, the highest level of correlation relative to the actual rate of increase in the GDP in the euro area is recorded in the case of Romania and Hungary, namely 0.69%**.**

Figure 2 - Evolution of real GDP growth rate, in Romania, the Czech Republic, Hungary and euro zone, in the period 2001Q1-2012Q1 (%)



Source: Data processing, http://www.tradingeconomics.com

If we consider the structure of the economy in light of the contribution to the value added to the gross domestic product, in Table 1 we observe a high degree of similarity in terms of contribution of the services sector, which is in a continuous development. As an element of differentiation in Romania the contribution of agriculture to the value added of the gross domestic product is much higher than in the euro area.

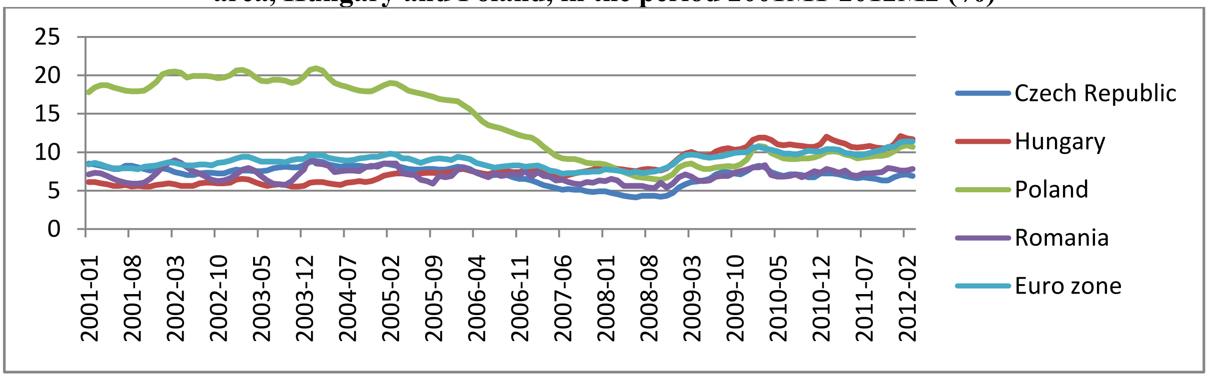
Table 1 - Evolution of sectoral value-added as a share, in the Czech Republic, Romania, Euro area, Hungary and Poland, in the period 2009-2011 (% of GDP)

Country/ Economy	Agriculture			Manufacturing industry			Non-manufacturing industry			Services		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Czech Republic	3	3	2	27	25	23	12	13	14	59	60	60
Romania	9	7	7	22	21	22	14	4	4	55	68	67
Poland	4	5	4	18	17	16	14	14	14	65	65	66
Hungary	4	8	4	22	22	22	8	8	8	66	66	66
Euro area	1.5	1.5	n.a	16	15.5	n.a	24,5	26,5	n.a	74	72	n.a

Source: Data processing, *The Global Competitiveness Report 2009-2010, 2010-2011, 2011–2012,* https://members.weforum.org/pdf/GCR09/GCR20092010fullreport.pdf, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf, http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf

Another indicator of major importance in the real sector concerns the human factor, namely the unemployment rate, with the evolution shown in Figure 3. It should be noted that in the period before the subprime crisis, the unemployment rate has been on a prevailing downward trend (printing a very high level in Poland). If the level of unemployment from the four countries before the crisis converged to the value of the euro area, after the start of the subprime crisis it registered an upward trend, remarking the highest level in Hungary and the lowest in the Czech Republic.

Figure 3 - Evolution of unemployment (not seasonally adjusted data), in the Czech Republic, Euro area, Hungary and Poland, in the period 2001M1-2012M2 (%)



Source: Data processing, http://datamarket.com/

In the same approach, but from another perspective, that of labour costs, the general labour cost per hour has grown and is well below the level in the euro area, the lower level being outlined in the case of Romania, both at the beginning of the analysis period and at the end of it.

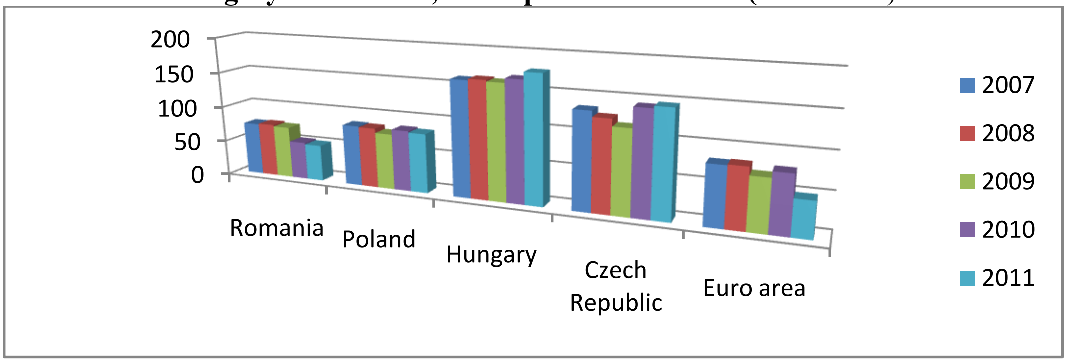
Table 2 - Labour cost per hour (for enterprises with 10 or more employees), in the period 2008-2011 (€)

	2008	2009	2010	2011
EU-17	25,8	26,5	26,9	27,6
Czech Republic	9,3	9,3	9,9	10,5
Hungary	7,9	7,3	7,3	7,6
Poland	7,5	6,4	7	7,1
Romania	4,1	4	4,2	n.a

Source: Processing data, http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Labour_cost_per_hour_in_euros_(for_enterprises_with_10_or_more_employees),_2008-2011.png&filetimestamp=20120424085138

A sensitive issue in the context of joining the euro area is the exchange rate regime closely linked to the degree of openness of the economy. In this respect, states with the highest level of degree of openness of the economies are the Czech Republic and Hungary and at the opposite pole, Romania and Poland (see Figure 4).

Figure 4 - Evolution of openness degree (exports + imports), in the Czech Republic, Euro area, Hungary and Poland, in the period 2007-2011 (% of GDP)



Source: Data processing, http://data.worldbank.org/

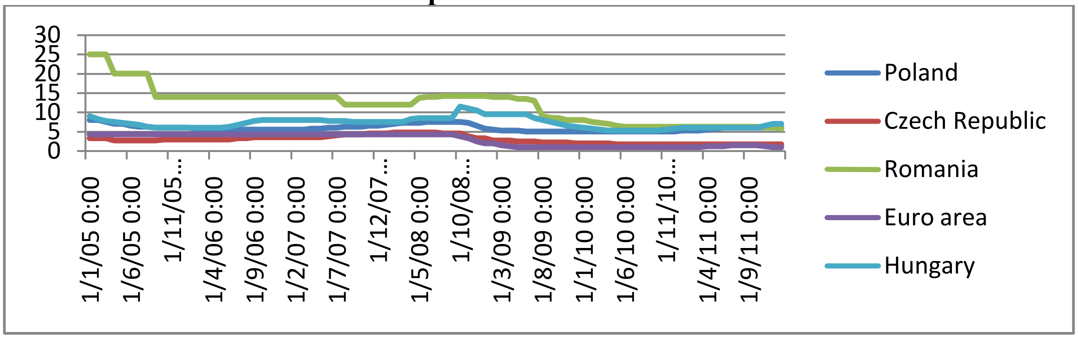
Therefore, in view of the above, the four countries have made notable progress in the real sector in the years that preceded the current crisis. However, considerable efforts are still needed in order to comply with the euro area rules, in terms of living standard, economic structure, degree of openness of the economy, etc., especially amid the effects of the recent economic and financial turmoil.

2. CONSIDERATIONS ON FINANCIAL CONVERGENCE IN THE CZECH REPUBLIC, HUNGARY, POLAND, ROMANIA AND THE EURO AREA

One of the main elements on which the accession to the euro areas entails is giving up to monetary policy autonomy in matters of drafting and implementing it. In this sense, the task of establishing the monetary policy interest rate is transferred to the European Central Bank.

Naturally, before joining the euro area, monetary policy interest rate differential should be one as low. Over time, there was an alignment of interest rates with the monetary policy interest rate of the European Central Bank in the states concerned but most significant is specific to Romania (see Figure 5).

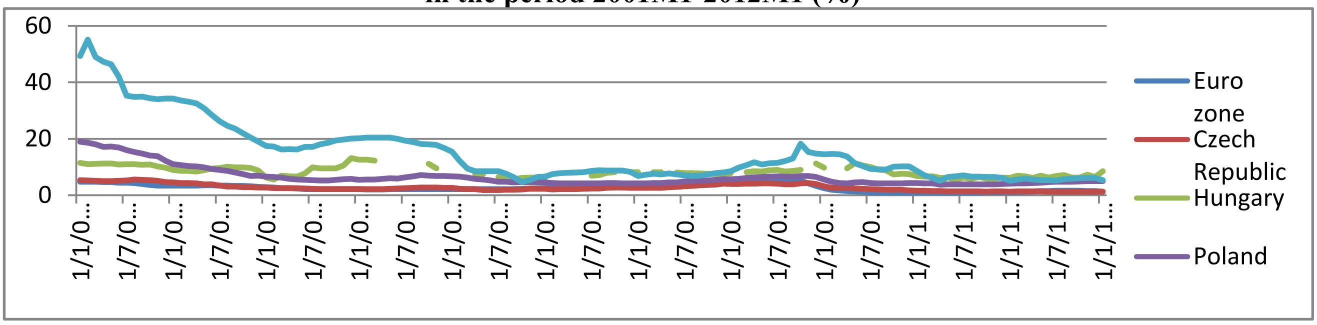
Figure 5 - Evolution of central bank interest rate, in Poland, the Czech Republic, Romania, Euro area, in the period 2005M1-2012M1



Source: Data processing, http://www.ecb.int, http://timetric.com/

It is also important to observe the evolution of three-month interest rate on money markets, highlighted in Figure 6. A similar trend to that of the monetary policy interest rate has been observed also in the case of the three-month interest rate which registers similar values in the euro area and the Czech Republic, the larger gaps being recorded in Romania and Hungary.

Figure 6 - Evolution of 3Month Interest Rate, in the Czech Republic, Euro area, Hungary and Poland, in the period 2001M1-2012M1 (%)

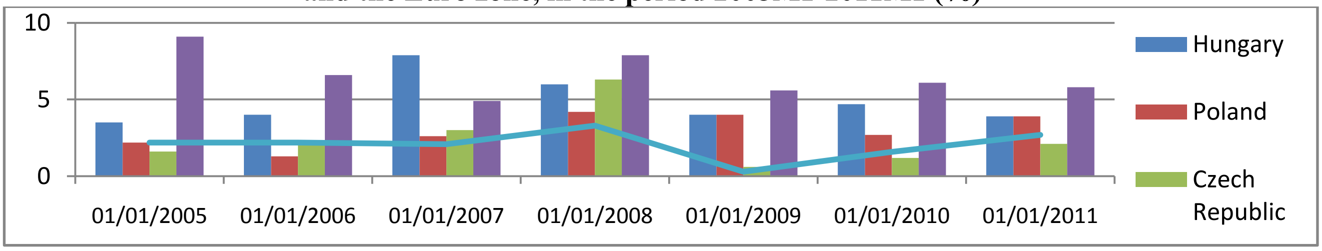


Source: Data processing, http://datamarket.com/

The highest correlation with the 3-month interest rate in euro area is registered by the Czech Republic, namely 0.83%, followed by Poland with 0.52%. On the other hand, the correlation with the 3-month interest rate in euro area in Romania is 0.43% and 0.37% in Hungary.

The importance of alignment with the monetary policy interest rate of ECB derives from its ultimate objective, ensuring and maintaining price stability. Therefore there is a need of alignment also at the level of inflation. As it can be seen in Figure 7, the analysed countries consolidated a disinflation trend, especially Romania, which is expected in 2012 to record an inflation rate in line with the proposed target. Also, is worth mentioning the fact that the inflation level in the Czech Republic is below to that recorded by the euro area.

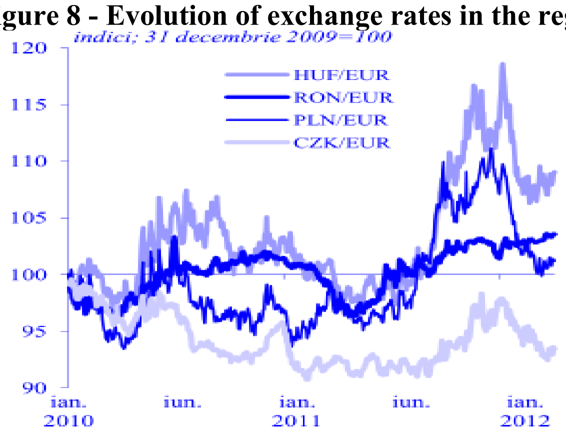
Figure 7 Evolution of annual average inflation rate, in Hungary, Poland, the Czech Republic, Romania and the Euro zone, in the period 2005M1-2011M1 (%)



Source: Data processing, http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&plugin=1&language=en&pcode=tsieb060

Another major issue in view of the accession to the euro area is renouncing to the national currency. Of course is desirable that the price of the single currency at the time of the adoption to be favourable, but especially sustainable for the concerned country. It is worth mentioning that, during the period January 2010-January 2012, the greater volatility in exchange rates has been registered by the national currency of Hungary, at the opposite pole being the Romanian RON.

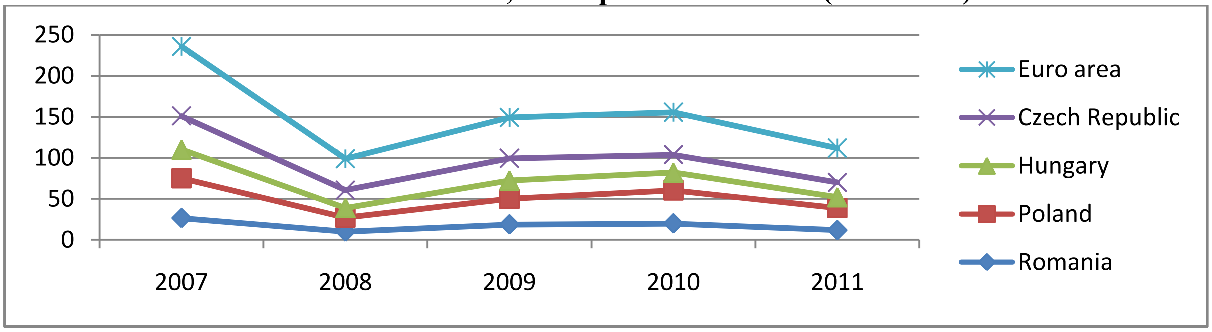
Figure 8 - Evolution of exchange rates in the region



Source: *Report on inflation*, p. 29, www.bnro.ro

Another aspect of financial convergence concerns financial depth. In this sense, all four countries recorded a level of market capitalisation below the level of the euro area. Therefore, consistent efforts are needed to reduce this gap, particularly in the case of Romania (see Figure 9).

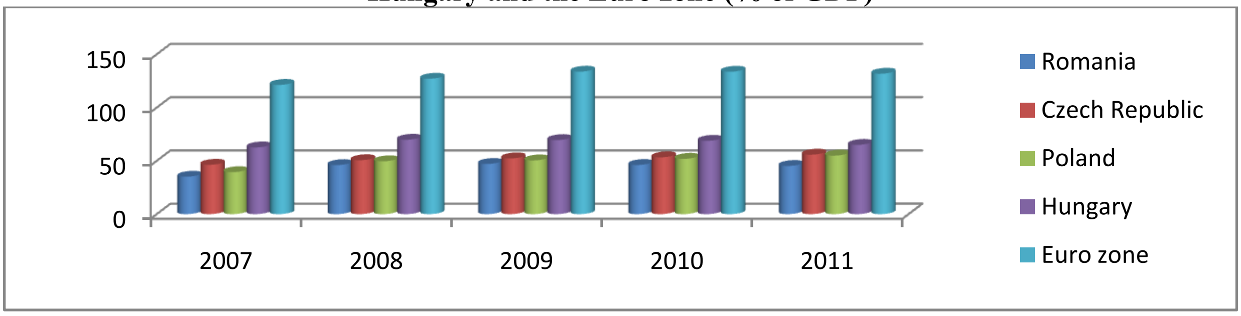
Figure 9 - Evolution of stock market capitalisation, in the Czech Republic, the Euro area, Hungary, Romania and Poland, in the period 2007-2011 (% in GDP)



Source: Data processing, http://www.tradingeconomics.com/, http://data.worldbank.org

Another chapter where Romania has the largest gap among the analysed states is financial intermediation, which is approximately three times lower than in the EMU and two times smaller (see Figure 10) than in Hungary.

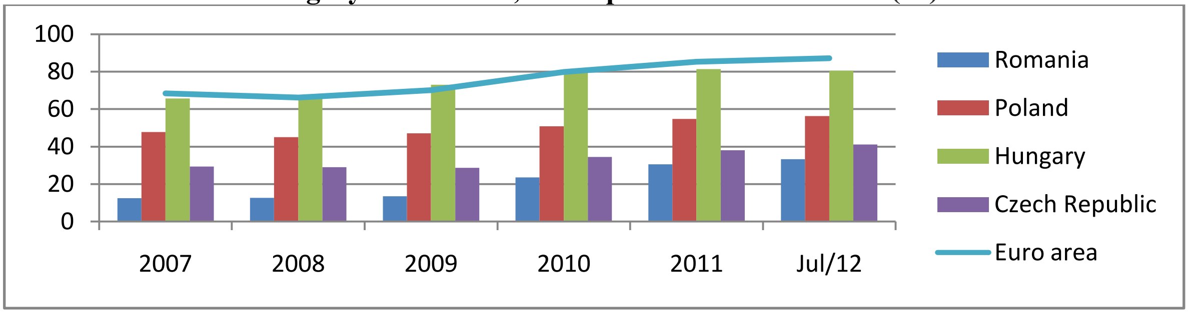
Figure 10 - Evolution of domestic credit to private sector, in Romania, the Czech Republic, Poland, Hungary and the Euro zone (% of GDP)



Source: Data processing, http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS, http://www.tradingeconomics.com/euro-area/domestic-credit-to-private-sector-percent-of-gdp-wb-data.html

As regards the situation of public finances, on the level of government debt outlined in Figure 11, despite the reference value of 60% of GDP, the euro area and Hungary are beyond that level which recorded the smallest value in the case of Romania. However, it should not be omitted the significant increase of this indicator during the last few years amid the current economic and financial turmoil which raises the problem of sustainability.

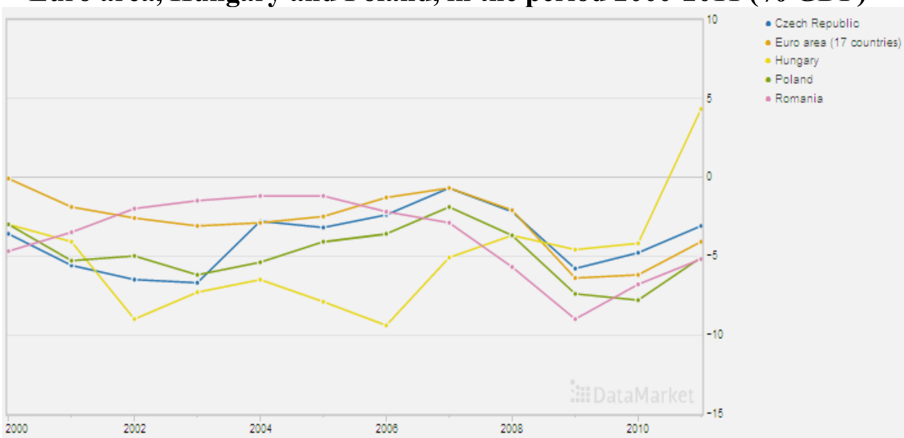
Figure 11 - Evolution of government debt to GDP, in the Czech Republic, Romania, the Euro area, Hungary and Poland, in the period 2007-iulie 2012 (%)



Source: Data processing, http://www.tradingeconomics.com

If we consider the situation of the government deficit presented in Figure 12, one can observe a recovery in the case of Hungary (the only one that even recorded a budget surplus) and Romania, the Czech Republic registering a deficit close to the reference level of 3% and lower than that of the euro area.

Figure 12 - Evolution of general government deficit (-) and surplus (+), in the Czech Republic, the Euro area, Hungary and Poland, in the period 2000-2011 (% GDP)



Source: http://datamarket.com/

Therefore, is worth noting that there is a strong need to evaluate the sustainability of public finances and to raise the level of financial intermediation in order to strengthen the monetary policy transmission mechanism over financial and real macroeconomic variables.

CONCLUSIONS

This paper sought to outline a general overview over real and financial convergence in four economies - Romania, the Czech Republic, Hungary and Poland, compared to the euro area.

In terms of convergence in the real sector, unlike the Czech Republic and Hungary, Romania must submit the most consistent effort in order to align itself to the level of GDP per capita from the euro zone.

Regarding convergence in the financial plan, directions to increase the financial intermediation and financial depth are strongly required in particular in Romania and Poland, the Czech Republic and Hungary recording slightly more favourable indicators.

On the other hand, central banks covered by this study showed favourable developments in interest rates in line with those in the euro area, in particular the national banks from the Czech Republic and Poland. Moreover, the central banks, except in Poland, should significantly improve the transmission mechanism of monetary policy upon the financial and real sector. Also, considering the fact that the advantages of low volatility of the national currency obtained by central banks can be easily removed by tensions in the political scene, it is necessary to unify the efforts of all institutions in order to get an adequate mix of policies favourable to sustainable development in all plans.

It is also worth mentioning the fact that the values of some indicators reflect only in a certain proportion the actual nominal and real convergence, a more detailed analysis being absolutely necessary. For instance, presently, the downward trend of strong inflation level is largely the result of deficit in demand amid the current crisis, and the level of public debt, although below the reference value of 60%, may mask a reduced degree of sustainability.

Overall, in the four countries, the evolution in the real and financial plans was favourable during the period before the recent crisis and after. Thus, there are good premises for future adoption of the euro area in the countries considered, but consistent efforts are still imperative.

In term of future research directions, considerable attention should be focused on the advantages of monetary policy autonomy and the opportunity of CEE countries to join the euro zone in the context of the sovereign debt crisis.

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