

THE ECONOMIC CRISIS IN EUROPE. MONETARY IMPLICATIONS*

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Abstract

This paper aims to provide a monetary analysis of the economic and financial crisis in Europe. The main focus is concentrated on monetary evolutions surrounding the Single European currency - prevention mechanisms, financing of deficits, monetary indications, enlargement and perspectives of the Euro Zone. Also, the Romanian perspective of these evolutions is presented.

JEL: E42, E63

Key words: Euro, monetary integration, Romania, economic crisis

1. A general overview of the crisis in the EU

As a consequence of opening its gates for the biggest enlargement ever, the EU and also the Euro-Area have been confronted lately with important challenges, doubled by the rather foreseen economic and financial crisis. Countries in Central and Eastern Europe, envisaged to have joined the Euro-area after a short two years' ERM II participation, are now faced with deficits, alarming public debt levels and instability in terms of exchange rate or inflationary disequilibrium. Pressure is even higher as, from the very beginning, all these new member states had been caught-up in the so called *impossible trinity* (de Macedo and Reisen, 2008) – meaning they had to give up one of three policy goals – monetary independence, exchange rate stability or free capital markets as all three are impossible to achieve. Combined with recent crisis developments on both structural and economic indicators' level have determined a new perspective for the Euro adoption process. These developments have raised key policy issues surrounding the euro architecture, but also, as crisis always do, aspects that have been insufficiently attended to in the past and needed improvements (Orphanides A., 2011). What has really happened in Central and Eastern Europe? Indicators of the real and monetary economy have degraded significantly pointing out to the insufficiency of central banks' control over price stability, to the lack of appropriate policy tools meant to enhance their contribution to stability and the urgent need for a comprehensive crisis management regime in both EU member states, and for the union as a whole. Does this mean that we are again making reference to the non-optimality of the Euro-area and of the EU economy? It most certainly does on both levels as the absence of a solid common extensive budget accompanied by stability and programming mechanism, has only been supported so far by the instrument of the Stability and Growth Pact. And it is more than obvious that it has been far from enough. Insufficient budgetary discipline has been, in most cases, the very cause of instability. Recently, it has also determined the strengthening of the disciplinary framework and of the Euro-area administrative system implication at this level.

The table below depicts in a rather summative way the image of economic developments in central and eastern EU member states, but also, in some western countries confronted with acute crisis episodes, such as Spain or Italy. The central negative issue of

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these evolutions seems to be the crisis of sovereign debt closely followed by the excessive deficit pressures.

Table no.1. Economic indicators (2010)

	GEO/TIME	Deficit/ per of GDP	HICP	GDP/cpt per (EU=1)	Exchange rate/annual average	Unemployment rate	Government debt – mil Euros
1	Bulgaria	-3.1	136.58	0.872912	1.9558	10.2	5,843.1
2	Czech Republic	-4.8	113.7	18.4671	25.284	7.3	56,571.0
3	Estonia	0.2	126.95	0.680834	-	16.9	951.1
4	Greece	-10.6	117.68	0.917956	-	12.6	638,767.4
5	Spain	-9.3	112.90	0.932209	-	20.1	1,843,014.7
6	Italy	-4.6	110.6	1.04542	-	8.4	8,025.9
7	Latvia	-8.3	137.91	0.454322	3.4528	18.7	10,459.2
8	Lithuania	-7.0	128.60	2.06213	0.7087	17.8	7,660.9
9	Hungary	-4.2	129.70	169.203	275.48	11.2	78,249.4
10	Poland	-7.8	115.6	2.42471	3.9947	9.6	195,425.5
11	Portugal	-9.8	108.85	0.830275	-	12.0	160,472.8
12	Romania	-6.9	135.17	2.14445	4.2122	7.3	37,072.9
13	Slovenia	-5.8	115.62	0.833937	-	7.3	13,703.9
14	Slovakia	-7.7	112.21	0.675793	-	14.4	26,998.4

Source: Eurostat

Envisaging a future Euro accession, the CEE countries delivered mixed results, as we may easily notice in the strict sense of the assessment of accession criteria. Some countries had very high inflation rates and contrasted fiscal situations but generally very high current account imbalances (which is not a criteria but is the sign of a severe macroeconomic disequilibrium and have caused wide exchange rates depreciations). Beyond the formal aspects of the criteria, strong reasons – poor real convergence, weak financial sector, fragility of the growth factors, saving deficits – were advanced for arguing that the accession of most of these countries was realistic at a medium-term horizon. (Patat, 2009)

As public debt seems to be the common problem of these countries, we wish to analyze the possible polarization of the member states according to this criterion. The polarization concept has be connected to what we call the “two speed development”, the social polarization and inequity (Tanasie 2011). Here, we are trying to point out a different type of polarization in the sense of depicting the contagion effect in terms of public debt, for neighboring countries, or countries belonging to Central and Eastern Europe.

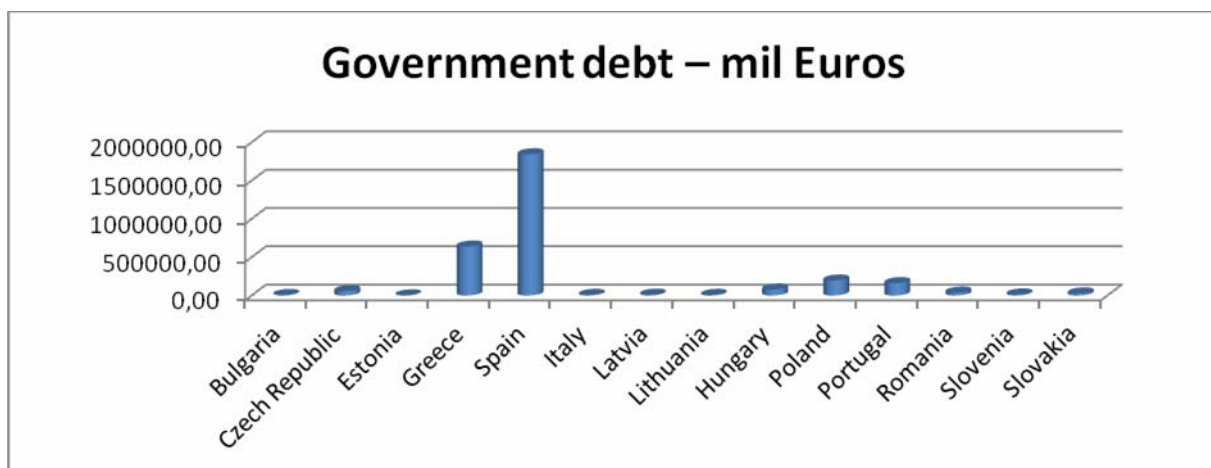


Chart no.1.

Government debt – CEE countries 2010

Source: author's computing based on Eurostat data

According to Pecican (2006), the polarization index may be defined as a variant of the concentration coefficient as following:

$$PI = \sum_i^n \sum_{j=1}^m p_j^{(1+\beta)} p_j |y_i - y_j| \quad (1)$$

where p_i – is the share of country's i population in the total population;

α – the concentration stability index $1 \leq \alpha \leq 1,6$. A decrease in the level of the concentration index would indicate a diminution in the polarization of the analyzed countries, meaning that a rather homogenous debt increase process has been taking place during a certain time interval connected to the economic and financial crisis. The evaluation of the degree of polarization may be approached using the F test, also according to Pecican. The basis of the dispersion analysis is the grouping method which allows the study of a variable's variation as a consequence of the influence of different factors that have generated differences amongst countries.

The present approach envisages the role of the public debt as central criterion in generating clustering and also, generating the sort of intensity capable to produce a spread larger than the group's average, but lower compared to the average of each group from the general average. If there are two or more groups of countries, each group being polarized around the average of a certain average of a cluster, we may proceed to computing the dispersion amongst groups. This is in fact verification for the fuzzy clustering approach. They both represent the other's validation. (Tanasie 2011)

$$\alpha_{\bar{x}_0/\bar{x}_1}^2 = \frac{\sum(\bar{x}_j - \bar{x}_0)n_j}{k-1} \quad (2)$$

The dispersion inside clusters may be obtained by summing up the square differences between the accomplishments of each country (x_{ij}) and the average of economic results from that group. Here we go beyond the spread and the clusters' formation determined through

fuzzy clustering algorithm, by introducing the dispersion inside a cluster. Thus, for group j we have (Pecican 2006):

$$\alpha_{x_j/\bar{x}_j}^2 = \frac{\sum_{i=1}^{n_1} (x_{i1} - \bar{x}_j)^2}{n-1} \quad (3)$$

For all the clusters we have:

$$\alpha_{\bar{x}_j/\bar{x}_1}^2 = \frac{\sum_{i=1}^m \sum_{j=1}^k (x_{ij} - \bar{x}_j)^2}{n-k} \quad (4)$$

Wishing to evaluate the significances of group differences, and also in order to established the degree of polarization which is significant and not conjunctural, we must use the test of dispersion share. This is also the case, due to the fact that we use data during the economic and financial crisis, which may create introduce conjunctural results. These are not desirable for the present analysis. We expect dispersion between clusters to be higher than he dispersion inside the groups. As a consequence (Pecican 2006):

$$F_{comp} = \frac{\alpha_{\bar{x}_j/\bar{x}_1}^2}{\alpha_{x_j/\bar{x}_j}^2} \quad (5)$$

Finally, we must compare the results with the table value of F according to the chosen significance level - $\alpha=0,05$ and the freedom degrees corresponding to the dispersions used in computing F , $k = 1$; $n - k$.

The total number of countries is n ($n=14$ of the EU member states) and k is the number of clusters where the countries have polarized ($k=3$, in this case). If $F_{comp} > F_{table}$, it means that there has been reached a significant polarization degree. (Tanasie 2011)

Thus in estimating polarization, from a statistical point of view, we have identified three main polarization areas when considering public debt as clustering criterion. Data presented in the table are debt values in millions of Euros, while computing data is GDP per capita percentage of the EU average. This we consider more relevant than figures themselves. The first cluster – highest debt values includes as expected Greece and Spain, the second – middle level debt – includes Poland, Portugal, Czech Republic and Hungary, while the rest of the member states form a third polarization area or cluster with lower percentages of debt in total GDP.

2. What has Changed? New Architecture, New Rules

When faced with the financial crisis, the EU and the Euro-area officials had to produce a new set of regulation, a new architecture that could prevent future imbalances. Shortcomings have been revealed this time on two main axis – micro and also macro scale, and the key issues at this level are prudential regulations and systemic risk. Systemic risk is represented by possible disruptions in the functionality of the financial market when confronted with the real economy. This precisely has been the source of the recent *bubble*. Prudential regulations in the financial area are needed in order to provide solutions for the cyclical side of this systemic risk, and could also limit the possibility of over-liquidity built-up. The main connection here is that under-evaluation of micro systemic risk could have been corrected in the past by appropriate macro prudential regulation. At a certain point in time and in economic and financial development, this coordination proved insufficient. The crisis also

revealed the need for a closed coordination between micro and macro elements of the financial side, as monetary control stands all in one hand – that of the central bank.

Aiming to strengthen all these, the EU took several important steps towards a new Euro-area structure and architecture such as the creation of European Financial Stability Facility (EFSF) and European Financial Stability Mechanism (EFSM), and the set-up by the ECB of the Security Markets Programme (SMP), one month after the granting of a EUR110bn loan from member countries and IMF for Greece but it still bailout the second time in July 2011. At the same time Ireland and Portugal bailed out, just a few months apart, while the lending capacity of EFSF has been extended and European Stability Mechanism, Pact for the euro has been created.

All these instruments would not be efficient unless a rather rigid agreement meant to tighten fiscal discipline, including sanctions that have been reached upon in September 2011. Nevertheless, Greece's problems are far from over, even if granted a new EUR130bn aid package.

What does that tell us? It reminds economists and politicians the importance of a stable structure, of fiscal discipline, and the most important lacking of the Euro-area – the political commitment towards a common fiscal policy and rigid prudential regulation. A common agreement of the member states upon such an issue could perhaps represent a real solution for future instability

3. Romania's Perspective

Where does Romania stand in all that instability? It stands somewhat on the edge of a cliff. Maastricht convergence criteria, even if depreciated compared to previous years' performance point out to moderate averages especially, when considering previously analyzed criterion – the level of the public debt as share of the GDP – after the stand-by agreement with the IMF supported by the World Bank and the EU Commission.

Table no. 2. Key economic indicators (2010)

	GDP per capita (% in EU27)	Inflation	Budget deficit (%)	Debt (%of GDP)	Exchange rate fluctuation	Interest rate
Romania	43	5,5	7,2	30,4	+1,71 / -14,3	7,34

As we have previously stated, nominal convergence – still at a low degree – is not the ultimate solution for long term stability. Future growth must also be insured by means of the real economy, out-put, competitiveness and productivity, beyond from monetary and exchange rate credibility. The close perspective of the Euro must trigger faster institution reforms and internal flexibility. Economic environmental changes could also create the necessary conditions for growth.

Analysis shows that, at least in our opinion, Romania does not seem prepared enough to enter, the fast track towards the Euro. Apart from that, a “tiger-type” dynamism could only be reached if structural reforms aimed at reforming the market and institutions would be characterized by depth, speed and commitment. Political support is also needed and Romania has not had proficiency in this field either. (Tanasie 2011)

Still, the essential lesson to be learnt is that convergence is not in itself, but real convergence envisaging no further disequilibrium, absorption of asymmetric shocks and common development inside the monetary union.

Conclusions

Monetary integration in Europe on solid and durable basis is a difficult process regular, cyclic economic crisis, or even out of the chart disequilibrium put even more pressure on the evolution of this process. Recent crisis developments pointed-out the exact lacks and inconsistencies of the European monetary architecture. Thus the main needs of the actual state of the act are: a stronger and corrective monetary mechanism, a stronger financial discipline, a wider range of corrective and preventive mechanisms, systemic risk limiting framework embedded in the framework of the monetary union, generalised, applicable and non-excepting macro-prudential regulation for all the members of the monetary union etc.

Romania's situation facing the euro adoption under the no-opt-out clause becomes even more difficult as real and nominal convergence become secondary targets as economic collapse and bailout avoidance are at plain sight.

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