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Romania's Real Convergence Process—A Brief Evaluation*

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Abstract: The newly emerged problems of the Euro-Area have put the monetary integration process into a whole new perspective. That is mostly due to recent debt crises in some member states economies. Still that remains a paradox as deGrawe has recently stated, due to the fact that the Euro-Zone debt ratio is still behind the US one, for example. Few questions arise from this situation: How could have the debts of relatively small countries create such an important impact? And, which is the perspective for the candidates, such as Romania? We have even come to doubt that what has been previously assumed in terms of real convergence is still in place. Leaving from all that, this paper envisages to make an assessment of Romania's real convergence situation and its monetary integration perspectives given the new conditions. Assessment includes an evaluation of both β and σ-convergence indicators, and also an analysis of nominal convergence, with a focus on debt and deficit indicators. That analysis is of real interest especially now, when everybody wants to make sure that recent history in terms of debt crises will not repeat itself. How certain are we, that future members, will not be the source of future instabilities?

Key words: convergence; monetary integration; Romania
JEL codes: E42, E63

1. Introduction

The essential questions this paper is looking to raise and answer concern both the importance of the EU and Euro choices for the new member states, but also the perspective of the monetary union as a whole taking into account the newly emerged issues of the financial and economic crises. This is a rather delicate issue. There have been several voices saying that the crisis is in fact a European crisis, the expression of a fragile European architecture, especially in the field of the single European currency. In this respect, Grawe has recently discussed the fact that even if the Euro-Zone debt ratio is still behind the US one, effects are more profound and transition to economic growth will take longer in Europe. Answers can be found in the area of the sources of macroeconomic imbalance for the two areas. The EU seems to have put too much trust into unity and too little into negative effects such as the contagion effect or asymmetric shocks.

The question still remains: How could have the debts of relatively small countries create such an important impact? The initial policy for the new member states, as far as the Euro adoption is concerned, officially set no deadline and the expectation has been that they will enter the Euro-zone in a foreseeable future. As part of the no-opt-out clause the main targets still are macroeconomic stability and growth. But, how are the new member

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economies supposed to deal with these issues since Euro-zone members such as Greece and Portugal have struggled during crisis times? This is even more of an issue if we consider the diversity if these countries, of their exchange rate regimes or monetary policies.

2. Challenges Ahead

Apart from the rest of the integration issues and policies, the monetary side of integration is a continuous process and it is continuously measured. Further it goes, further challenges rise for the candidate and member countries. Monetary integration is a complex process, and it has become even more challenging once faced with the economic and financial crisis. Now, aspects to be discussed are even more challenging. The first challenge depicted by the academic observer is the ERM II accession in connection to the monetary policy and the exchange rate regime. According to Jarai (2003), most challenging aspects linked to macroeconomic developments in accession countries are: the real appreciation of their currencies, the capital inflows associated mainly to the strengthening of convergence before the settle of the economic crisis, expansionary fiscal policies (that have boosted the bubble) and successful disinflation. Most of these are acute problems of the Romanian economy, brought forward even more by recent developments. The gradual appreciation in accession countries has been well established by economic theory. Causes may be found, in recently passed years in nominal appreciation determined by strong capital appreciation. This was the case for Romania immediately after the capital account liberalization in 2005. Apart from the analysis of current events, the examples of EMU members such as Greece or Portugal suddenly become relevant when considering small open economies such as Romania or Bulgaria. Strong appreciation (even if controlled by the National Bank) has weakened competitiveness and pressured exports.

Furthermore, ERM II accession is a challenge in itself. Romania chose a delayed accession for several reasons. First of all, it was the exchange rate regime—a matter of common interest for both the Romanian National Bank and the ECB. In this respect a central rate agreement is a must. And here we have the second issue. Romania partly settled that issue in 2003 by making the Euro the reference currency. This is not just a technical matter. Also, denomination of the Romanian Leu served the same purpose and has been perceived as a step forward. A 4:1 central rate has been foreseen, but unfortunately expectations were exceeded.

Beyond the technicalities of the foreign exchange rate regime we have presume as essential the Optimal Currency Area hypothesis. The current economic crisis has made an interesting point: compliance with nominal Maastricht criteria has proven its limits, and recent developments point to these key issues as initial source for imbalances-openness degree, synchronization and business cycles, increased mobility of labor force, price and wages flexibility and the high degree of financial development—Mundell (1961) and McKinnon (1963). Unless the OCA is reached, we have been proved that the EU and the Euro are no guarantees for prosperity the way Romanians' have hoped. We must state here the fact that for Romanians as well as perhaps for other Eastern Europeans the EU has been perceived as the delivery from communism and poverty towards the democracy and welfare.

Another key issue here is discipline in central banking both before and after the Euro accession. National macroeconomic policies must prove the commitment of authorities towards the monetary union aim. The National Bank must prevent using disciplinary means loose fiscal policies, for example. Beyond policy formulation, timing is to be discussed. The main problems, especially during the recent period concern the budget deficit and its implications, but also inflation which seems to be unstoppable, in Romania, for example. Timing is again critical—macroeconomic reforms require an early time application. Late and incomplete implementation in Romania has shown its negative results. Even if inflation targeting seemed rather simple and easy to achieve, the connection—catching-up-Balassa-Samuelson effect—for Romania is rather arguable. Inflation is a persistent phenomena for both growth and recession period. Disinflation is no easy task for the Romanian National Bank. Budget deficits have also exceeded reasonable averages especially during recent crises years.

Further challenges of the EMU accession and the Euro adoption may be described as following: convergence—both nominal and real, the policy issues, the achievement of the Copenhagen criteria, monetary policy strategy and exchange rate regimes and also the fiscal policy. The broad assessment of a functional market economy is a difficult and complex task. In fact this is the final aim once nominal and real convergences have been achieved, and also the OCA has been settled.

3. Economic Arguments and the Right Time for the Euro

The first question inside a small open economy such as Romania comes under the shape of positive economic argumentation in favor of the EU and the Euro. Apart from the already mentioned choice towards democracy and welfare, Romania has also been in search of stability, a functional market economy and a performant ruling system. The Euro represents the symbol of belonging to an European selective and superior group of countries. Strongly debated nowadays is also the lack of options in terms of economic and state systems—communism has failed market economy and democracy are the alternative left. As arguable as it may seen, this rationing also needs economic support. Even if only potential, benefits of a stable monetary union under the OCA rules seem to be dominant. In principle, and during a certain medium or long term perspective, the benefits should outweigh the costs by means of exchange rate costs lowering, reduction of transaction costs, lower interest rate. The vulnerability to asymmetric shocks is still an issue, as is the case of contagion that has increased once small neighboring economies have become part of the economic and monetary union.

Do we lack some pieces of the puzzle such as a common budget, or common fiscal policies, or preventing regulation, or even a buffering financial mechanism? Yes, we do, and we have been recently confronted with the results in cases such as Greece or Portugal who were also looking forward towards the welfare of the Euro-area.

Anyway, under normal economic circumstance and on a predictable economic trajectory, positive commercial effects, investments, employment and growth should emerge.

4. Convergence—Even More of an Issue: The Romanian Case

Romania's EU and Euro-area accession are widely discussed and analysed processes. After the EU accession in 2007, Romania is under the no-opt-out clause in connection to its Euro adoption process. Recent crisis evolution have cause serious disequilibrium for the Romanian economy and the need for international financial assistance.

Briefly, Romania's economic and monetary evolution, during recent years, can be described as following (Tanasie, 2011):

- Inflation evolutions-In august 2005, the National Bank of Romania adopted a new monetary strategy—direct inflation targeting, with an essential role for the anchoring of inflationary anticipations to the target announced by the Central Bank. This was aimed to achieve necessary steps towards EU and Euro accessions. As a consequence of crisis developments, the CPI for the last trimester of 2010 reached 7.96%—3 percentage points above the superior limit of the interval established at ±1 percentage point around the target of 3.5%. The annual average of the CPI maintained an ascending trend towards 6.1% (data provided by the Romanian National Bank–Inflation Report).

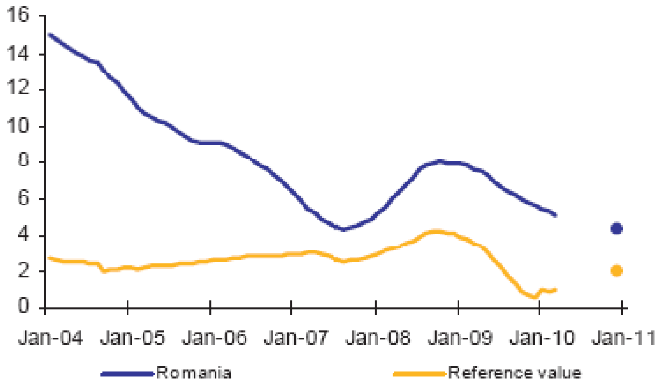

Figure 1 Romania–Inflation Criterion

Source: Eurostat, Commissionservices' Spring 2010 Forecast—Convergence Report 2010, p. 180.

● Budget deficit evolutions are strongly influenced by the economy's position compared to the economic cycle. In Romania, authorities are in search of determining the structural budget deficit, meaning a cyclic adjustment of budget income eliminating the component generated by the deficit/excess in demand. The result provides a measure of the sustainability extent of public expenditure (Romanian National Bank–Inflation Report, 2011). Budget deficit has been and will stay a key issue in Romania. It is also the case of public expenditure which has been severely cut-off by at least 25% in terms of public sector wages. Still, such measures did not have the desires effect and do not manage to compensate for the lack of income sources. For 2010 budget deficit dropped to 7.2% from 8.4% in 2009.

● Exchange rate RON/EUR has had a continuous ascending trend until the end of 2010, until stabilizing later on or even decreasing. The pattern continued to differ from other currencies in the area. This time also, the exchange rate of the Romanian Leu has been less responsive to global risk preference and especially to the conditions associated to the EU and IMF borrowing agreement in respect of fiscal and structural measures. Under these circumstances, the NBR assumed its' evolution to have been majorly influenced by local risk assumptions concerning: the progress in respect of the stand-by agreement, the evolution of published economic indicators in comparison to prognosis or the signal given by Fitch in confirming the rating for five large Romanian banks with foreign capital.

Figure 2 Exchange rates-RON/EUR

Source: ECB and EcoWin., –Convergence Report 2010, p. 180

Public debt—Evolutions under this chapter have been dominated by the stand-by agreement with the IMF and the EU. There may be more behind the figure. A closer look should be taken in this direction as medium term perspectives concerning this aspect could take negative down-turns. This is due to the government's heavy borrowing which is expected to weigh further on the rising external debt, the other way around, it is mainly public debt that underlies the rising level of gross external debt, notably mirroring disbursements of international financial assistance from the IMF and the EU. Latest IMF evaluation pointed-out a relative but still very fragile stability of the Romanian economy.

Table 1 Romania's Nominal Convergence Indicators

	2010
Inflation	5.5
Interest rate (Maastricht)	7.6
Exchange rate	+1.71/-14.3
Budget deficit	7.2
Public debt	30.4

Source: National bank of Romania.

Still, nominal convergence has proven not to be enough, especially during tough crisis times. That is the reason why analysis has returned to real convergence and the OCA criteria. Here we envisage to take a glimpse at the EU and Eruo-area real convergence developments during recent times. Romania's real convergence process from the OCA criteria point of view is also rather disappointing: labor productivity is one of the lowest in the EU with only 41% of the average determined especially by the lack of investments and of modern technologies, thus eroding the advantage provided by the low labour costs—only around 13% of the EU-27 average**,** trade openness degree has always been rather high and provided an advantage for the Romanian economy, not so much in terms of integration, but perhaps more in terms of markets contagion effect. Under these circumstances, the most challenging bad consequences circle is created and maintained (Tanasie, 2010).

Real convergence is also assessed by means of GDP per capita. This is also the indicator used in computing the spread of convergence. This approach is based on the deviation from an average central value that can be measured for a group of countries (the EU). Synthetic indicators such as the dispersion (σ^2), the square average diversion (σ), the variation coefficient (CV) or the linear average deviation are being used (d) (Pecican, 2006). All these indicators depict the extent in which the EU member states' (analyzed according to different indicators—in this case the GDP/capita) deviate from an average. In dynamics, as the spread decreases, we are able to say that convergence increases. The dispersion (σ2) results from the following expression:

$$\sigma^2 = \frac{1}{n}\sum_{i=1}^{n}(x_i - \bar{x})^2 \tag{1}$$

Where x_i is the analyzed variable–GDP per capita, i- 1,...n is the country and $\bar{x}$ represents the average.

The indicator square average diversion

$$\sigma = \sqrt{\sigma^2} \tag{2}$$

represents the square average of the values' diversion from the arithmetic average. A decrease along time in the values obtained for the square average diversion for a certain variable (GDP per capita) points towards an increased convergence of that certain variable. This is called σ convergence.

If, during the studied period, the dispersion level registers a decrease, then we may asses the convergence as progressing.

β- convergence is also an useful instrument in estimating and interpreting real convergence. This is employed as parameter of the regression equation of economic growth. The absolute β- convergence test for a group of countries uses a transversal sectional analysis considering the regression of the average growth rate, according to the logarithmic function of the initial GDP per capita.

$$Yi, t, t + T = a - \beta \log (yi, t) + ui, t, t + T \tag{3}$$

Where,

$$Yi, t, t + T = \log (yi, t + T/yi, t)/T \tag{4}$$

is the annual growth rate of the country i for the years between t and t + T;

log (yi, t) is the logarithm of the income per capita in country i in the year t;

ui,t, t+T is the error coefficient.

β- convergence is to be analyzed using a positive and statistically significant indicator and it shows the intensity of convergence. We may analyze it as following:

$$Yi, t, t + T = a - \beta \log (yi, t) + cXi, t + ui, t, t + T \tag{5}$$

Where Xi,t is a variable vector which allows maintaining a stationary state of the economy, and thus, β-convergence must be positive and statistically significant.

Although contested by some economists (Friedman, 1992; Quah, 1993) for being irrelevant for the real convergence of economic growth, the concept of β-convergence plays a significant role in the literature. It is even indispensable as an econometric calculation and analysis tool for the description of this process when it is considered either in its simple initial form (absolute β-convergence) or the developed form (conditional β-convergence) (Iancu, 2008).

β-convergence and σ- convergence do not exclude or replace one another. Even more, they are connected and they verify one another.

According to Iancu (2008), the relations between the σ and β indicators, may be summed up as following: (1) A necessary condition for convergence is the existence of the β-convergence; (2) Although necessary, the β-convergence is not a sufficient condition for the σ-convergence.

Econometric testing for the 2005–2009 EU-27 and Euro Area member countries provided the following results:

Table 2 Computing Results

		2005	2006	2007	2008	2009
EU-27	σ	0.570575	0.568298	0.561084	0.547046	0.518545
	σ2	0.325556	0.322963	0.314815	0.299259	0.268889
Euro Area	σ	0.498948	0.503141	0.5	0.489919	0.480721
	σ2	0.24895	0.253151	0.25	0.240021	0.231092

Source: Author's computations based on data from Eurostat.

Envisaging to apply the presented model, we consider the following: that starting year is 2000, the share yiT/yi0 is referring to the final year 2009 (yiT) and the share of GDP per capita for 2007 in the 27 EU member states, but also for the starting year (yi0) for the same member states.

After applying the t test (Student repartition) concerning the significance of the β = -0.18275 parameter resulted in t = -3.7, which means a significant difference from 0—the risk is rather remote. The minus sign of the β parameter confirms expectations and theory. Thus if σT0+T > σT0 and β is negative, signifies a decreasing distance between the development levels of the economies in period T.

Dispersion levels provide the clear image that situation has been improving for the EU convergence process even for the new member states' accession period. Until the economic and financial crisis they seem to have performed rather well in terms of convergence. Situation has deteriorated for them during this crisis, but according to simulation results both the EU and the Euro-area have progressed in terms of convergence of the GDP per capita indicator.

How certain are we, that future members, Romania—for example, will not be the source of future instabilities? There are no guaranties. The only think that authorizes and economists can do is to ensure the health of an economy. Beyond these figures, there is a common mechanism, a common engine for all the EU countries. This mechanism may take us far away or it may cease to function during tougher times. The key to that engine is real convergence.

5. Conclusions

Several essential issues concerning Romania's convergence process need to be pointed out: (1) there is further need for the reform and implementation of macroeconomic policy mix, as monetary policy is not an universal instrument capable of solving real economy's issues, (2) as proven by the recent economic crisis, continuous convergence is not just a purpose in itself, but the key towards stability and capability to deal with asymmetric shocks and contagion effect, (3) the convergence of income under the pressure of inflation or nominal exchange rates is, in this respect a rather sensitive point, (4) the economy requires the transfer of resources towards the tradable sector aiming convergence supported by a sector which already is the main source for that—the exporting sector. 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.

The analysis concerning Romania's convergence process has pointed out the following conclusions: (1) General economic situation has deteriorated since 2008 and thus, the horizon of Euro adoption has gone even further; (2) the coherence of Romanian policies in connection to cyclic evolutions and to the economic and financial crisis has not been adequate in respect of prevention and anti-cyclic behavior.

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