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**The Economic Convergence with the European Union  
under Romania’s Financial Stability Conditions.  
Implications for the Central Bank.**

( Abstract)

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## **Introduction**

Recently, convergence has been a subject of interest especially after the creation of the European Union, and also after signing the Maastricht Treaty, where one out of the two forms of convergence had been regulated, this being a necessary condition for the adoption of the single currency.

The objectives of this thesis will follow the summary of the above chapters. They will try to incorporate and present theories and models, as well as implications and solutions at the empirical and practical level of Romania and its convergence to the euro area, as well as the adoption of the single currency.

The aim of this thesis is to determine whether Romania is prepared or not for converging to the euro area and for the actual implications of this convergence.

**The first chapter** starts by presenting the idea of convergence in economy, the process of economic divergence and the official criteria that need to be implemented by the European Union's member states in order to enter the euro area.

The idea of convergence in economy is the hypothesis according to which within poor economies, the per capita income tends to increase quicker than within rich economies, thus, diminishing the distance between them.

There are five criteria which need to be implemented for adopting the euro:

- The exchange rate criterion

The candidate state is required to demonstrate its exchange rate stability for a period of at least two years. It is assigned a central rate against the euro and the exchange rate of its own currency needs to be kept within a  $\pm 15\%$  range from an unchanged central rate.

- The inflation criterion

The inflation rate needs to be similar with the inflation rate in three member states that have registered the lowest inflation rates.

- The interest rate criterion

One year before the examination, the member state needs to have an arithmetic average of the long term interest rate that shall be no more than two percentage points higher than the performances of the three member states, regarding the stability prices.

- The fiscal rate criterion

There are two conditions that need to be met: the ratio of the planned deficit or the actual governmental deficit which should not exceed 3% of GDP, and the ratio between the governmental debt and GDP which should not exceed 60% of GDP.

- The legislative convergence criterion

The European Central Bank is being asked to analyze the compatibility between the national legislation and the Articles 108 and 109 of the Treaty and Statute of the European System of Central Banks. The national bank needs to be independent from the functional, institutional, personal and financial point of view, and all these attributes should not be inter-related.

**The second sub-chapter** defines the nominal economic convergence which refers to the convergence of development of costs, prices and the underlying factors.

Explanations are provided for two main measures: beta convergence and sigma convergence.

The beta convergence is the process in which poor states are developing quicker than the rich ones, catching up with them. It also refers to the negative correlation between the initial levels of the real GDP/per capita and the annual growth ratio.

The sigma convergence refers to the analysis of the evolution of the inequality or the dispersion of the GDP/per capita among states.

**Hereinafter**, the concept of real economic convergence is explained and an analysis of nominal convergence and a second analysis of real convergence for Romania for the year 2012 are presented.

The real economic convergence is a long-term process and is not a necessary condition for a successful transition to an Economic and Monetary Union. This real

economic convergence process aims to reach the state vector of the fundamental macroeconomic indicators which are similar to the ones registered on the benchmark level; it also aims to underpin the sustainability direction of nominal convergence and to neutralize the asymmetric shocks coming from the benchmark.

Romania made no remarkable progress regarding the real convergence to the euro area.

In order for Romania to develop an auspicious environment for the creation of a sustainable convergence, it is necessary for the state to implement a monetary policy that targets the stability and the strict implementation of the fiscal consolidation plans.

**The last sub-chapter** presents the *European Fiscal Compact* which is a treaty highlighting stability, coordination and governance. This treaty includes the following requirements: national budgets will be equilibrated or in surplus so that the structural deficit does not exceed 0.5% of GDP.

#### *Fiscal Compact and its Implications in Romania*

When the GDP is on the same level with the potential one, the fiscal position of the economy represents the structural budgetary deficit.

If the potential GDP is less than the effective GDP, the fiscal policy used in this case is a pro-cyclic one. Between 2006 and 2008, authorities realized permanent structural expenses, although the income was cyclic.

#### *Fiscal Compact at the Romanian Level*

The advantage that Romania will have refers to the correction of some errors regarding the fiscal policy. Romania needs to have a structural deficit of maximum 0.5%. The state will not be able to have pro-cyclic fiscal policies if they want to have heavy fiscal discipline.

However, the Romanian Fiscal Compact encounters disadvantages because it diminishes the space of maneuver existent on the actual level regarding the economic incentives.

Romania has a public debt far below 60% which allows a structural deficit of 0.5% of GDP or a bit higher.

*The Fiscal-Budgetary Strategy for the Period 2013-2015*

- It is expected that up until 2015, the value of the budgetary deficit of GDP will equal 1.43% of the value of the GDP.
- A better absorption of the European funds at the level of budgetary incomes and expenses.
- The European Commission has established targets regarding the budgetary deficit.

**Chapter 2** refers to the trade-off between the economic growth and the financial stability. Real flows and nominal flows that happen within the economic process are presented. The aforementioned process is divided into real economy and nominal economy.

Thus, when talking about the real-nominal relation, we have to admit the following:

The first acknowledgement raises the question of considering or eliminating the inflation effect in these economic flows, be they real or nominal.

The second acknowledgment highlights the difference between the real goods and services and the nominal ones. The difference is realized by observing the affiliation to a specific category of economic activities.

**Sub-chapter 2** refers to the real and nominal economy, the difference between the two determining the creation of a delimitation between the economic cycle and the economic crisis, and also between the inter-conditions of the real and nominal variables.

**This chapter** not only defines and explains the economic cycle and underground economy but also defines its phases and their representative mechanisms.

The economic cycle represents the means of long term development of the economy. It is a macroscopic means of development of economic processes.

The underground economy refers to the illegal business of buying-selling goods and services through violation of regulations such as price controls or rationalization. This is one of the main factors determining major macroeconomic disequilibria.

**The following sub-chapter**, referring to the inter-conditioning between real and nominal variables, presents these two types of variables and also the principle of neutralization of the money stock, which suggests that long-term currency the needs to be neutral.

This principle promotes the idea according to which economic shocks should not affect the real variables such as unemployment rate, economic growth, wealth, productivity and competition, but need to increase the nominal money offer through a proportional increase of the price level.

**Following the sequence of sub-chapters** there is a need to clarify the idea of a trade-off or trade-on between the economic growth and the financial stability. After conducting a complex analysis we reach the conclusion that there is indeed a trade-off between the two.

The last part of the **chapter** refers to the pension system, which in Romania faces a huge disequilibrium among persons that pay social contributions, the 4.7 million employees, and the 5.7 million pensioners.

The pension system deficit has been stabilized at around 7 billion lei until mid-2012. Statistics show that this amount will reach 13 billion lei, which all in all will exceed the consolidated general deficit estimated to be approx. 12 billion.

For a better understanding of this issue, a retrospective of the past years is needed.

In 2006, the budget generated from the social assurances was sufficient for paying the population's pensions. The problem appeared in the period 2006-2011, analysis that is presented in this sub-chapter.

Therefore, it is necessary for a solution to be found regarding this deficit, otherwise, Romania will be in the position of not being able to achieve its goals and targets.

**The third chapter** defines and describes the paradoxes and dilemmas of developing economies such as the Maastricht Paradox, the Impossible Trinity, the Tosovsky Dilemma, the Rose Effect and the Balassa-Samuelson Effect.

**The first sub-chapter** focuses on the Maastricht Paradox, on the categories of existent correlations between the real economic convergence and the nominal one, on its appearance and functionality and its ways of manifestation.

The Maastricht Paradox represents the distortion of the criteria of the nominal economic convergence as an effect of the real economic convergence process. It appears when the process of real convergence and the nominal one take place simultaneously and their correlations intersect.

There are many categories of possible correlations between the real economic convergence process and the nominal one, as follows:

- Structural correlations (k1)
- Functional correlations (k2)
- Causal correlations (k3)

These types of correlations occur based on four basic perspectives that are:

- Dimensional perspective  $\alpha$
- Temporal perspective  $\beta$
- Dynamic perspective  $\gamma$
- Potential perspective  $\delta$

The Maastricht Paradox has two ways of manifestation:

The first one foresees that an improvement of the criteria of real economic convergence will determine a worsening of the nominal economic convergence criteria.

The second one foresees that a worsening of the real economic convergence criteria will determine an improvement of the nominal economic convergence criteria.

**The second part of the chapter** describes the Impossible Trinity, stating the idea that it is impossible to have all the following three elements at a time: fix exchange rates, capital mobility and independent monetary policy.

The trilema includes the following combinations:

1. Absolute mobility of capital and autonomy of monetary policy
2. Absolute mobility of capital and fix exchange rate
3. Fix exchange rate and autonomy of monetary policy

**Sub-chapter 3** presents the Tosovsky Dilemma that arises from two highlighted elements, intrinsic ones, in the economies that are rapidly catching up with the developed ones, in an environment of free capital flows.

**Sub-chapter 4** presents the Rose effect.

Andrew Rose was the first to have used the methodology to study the effects of the monetary union over trade.

Positive evidence regarding the benefits of the states that adopted the single currency derives from the estimates of the Rose effect which use aggregate and industry-level bilateral trade data. These data show that commercial flows among states that have a common currency are three times higher than the ones that lack this advantage.

Moreover, this sub-chapter includes reviews that criticize this effect and some other models.

**The last effect presented in this paper** is the Balassa-Samuelson effect which is based on the purchasing power parity that is distorting as a result of the international differences in relative productivity between tradable and non-tradable goods.

The basis of the Balassa-Samuelson effect is represented by the Penn effect which refers to the deviations of the purchasing power parity. These deviations usually appear in the same direction, where the income level is high, the medium level of prices being high as well.

The objective of the Balassa-Samuelson model is to explain the evolution of the real exchange rate and the structural component of inflation within the developing economies.

Different empirical studies promoted the idea that the Balassa-Samuelson effect studies the Baumol-Bowen effect. This imprecise idea could be the result of the fact that the relative price of non-tradable goods and that of the tradable ones is usually used as an internal measure for the real exchange rate. The Baumol-Bowen effect highlights only the internal variables, thus not explaining the differences of



inflation among states. Therefore, we can state that the Baumol-Bowen effect is an important part of the Balassa-Samuelson effect; however, it is just a part.

**Chapter 4** compares the fiscal-monetary mix with the sustainable economic growth. Thus, the fiscal-monetary mix is a concept that is based on the sum of monetary and fiscal policies of a state. The Central Bank and the Government coordinate these policies and their target is the economic growth and increase of employment level.

The Central Bank is the one to coordinate the interest rates and the capital flows, having the indirect control over inflation and unemployment rates.

Moreover, the Central Bank is independent. This is a positive characteristic because it prevents the bank from generating debts which will later on be paid from the printed money.

The monetary policy refers to the control of the central bank over the existent liquidities on market in order to achieve the general objectives of political economy.

The fiscal policy refers to choosing the Government regarding the usage of taxes and government expenses needed to regulate the aggregated level of economic activities.

**Sub-chapter 2** analyzes the IS-LM model which includes the goods and services market and the monetary sector. This model analyzes the inter-dependencies existent between the market of goods and that of financial assets. The relation between the two will be showed by the GDP or GNP and interest rate ratio.

**The following sub-chapter** analyzes the concept of sustainable economic growth.

The strategy of economic growth is based on a sustainable long-term economic growth by increasing GDP/per capita and improving population's life. Thus, the concept of sustainable growth includes three main factors: the allover optimum level of investments, the optimum distribution of investments and the optimum distribution of consumption in time.

**The last sub-chapter** of this chapter analyzes the Romanian fiscal-monetary mix in the period 2000-2004 and 2007-2010.

An analysis of the fiscal-monetary mix has been conducted which compared the inflation with the monetary policy, having as a result the budgetary deficit.

The main actor in this period of time which influenced history, was the recession. In 2006-2008, Romania had a budgetary deficit of less than 5%.

Another analysis was also conducted; it included the following parameters: inflation, budgetary deficit/surplus, interest rate and expenses for the period 2006-2011. Thus, we've reached the conclusion that the basis of these policies is represented by the public debts that Romania now faces. The RNB pursued an anti-cyclic policy for both periods of time, before and after the recession, while the Government followed a pro-cyclic policy, having as a result the actual situation of Romania.

**The last chapter** presents the role of the RNB in assuring growth and stability.

**Sub-chapter 1** describes and analyzes in detail the RNB's instruments regarding the financial stability, which have as a basis the stability of payment systems and those of clearing systems. The payment systems existent in Romania are: ReGIS, SENT, SaFIR, RoClear and DSClear.

The Central Bank has a series of measures of stability which can be used only when the financial stability is jeopardized and the situation cannot be regulated using the supervision measures available to central banks.

*The systemic risk* is defined by ECB as being that risk of producing a systemic happening that can have a negative influence over some institutions that play a key role in the well functioning of the market.

There are three types of risk:

- The risk of materializing the macroeconomic shocks;
- The risk of contagion;
- The risk of propagating the effects caused by the growth of disequilibria in time.

The limitation of these types diminishes the impact of combining these elements.

The case study presented in this paper, entitled “ *The Romanian Economic Convergence and its Entrance in Euro Area- Implication and Solutions*” –

highlights the actual situation in Romania, tests the hypothesis and validates the answers regarding the auspicious environment of entering the euro area, the benefits that can result from such actions, the measures that need to be taken in order for this step to be quicker and safer, in order to avoid commercial frauds and other such types, speculations and uncontrolled boom of prices.

Thus, the case study presents interviews with specialists from both public and private sectors, belonging to major Romanian financial institutions; these persons have an experience of over 10 years and that play a key role inside these institutions.

There have been 75 interviews out of which only 67 have been validated, the rest being eliminated for various reasons.

All the hypothesis have been validated reaching the conclusion that Romania is not ready to enter the euro area, needing a period of over five years to converge both from a nominal and real point of view.

The implementation of this process is expected to be a success because both Romania and Europe have the necessary experience in fulfilling this process. Europe has experienced this action with Eastern countries, and Romania had a similar experience with the 2005 denomination. Such legal regulations can be easily elaborated for counteracting frauds and speculations that can appear when changing the currency.

It is recommended a period of interchange of the currency of more than six months, period in which prices should be displayed in both currencies.

Romania will finally gain access to all the benefits offered by the euro area, especially from the international trade point of view. The state felt the lack of some benefits and could not take full advantage because of the changes in currency manifested over time.

Furthermore, there have been discovered three typologies as follows:

- The speculator who does not wish to adhere because he would win from the difference in currencies;
- The exporter who wishes to adhere as quickly as possible because in this way he is not dependent on the exchange rate when internationally trading goods.
- The technocrat who generally is neutral, being represented by the common macroeconomist who undertakes the principle of analyzing, following the

external factors and conditions, existent perspectives, thus avoiding the decision-making process.

**The last sub-chapter** of this thesis presents the measures taken by the RNB the moment the crisis was triggered.

These measures are based on changes of structure of funds, banks including in their own funds: intermediary profits that had been acquired during a year and up until the closure of the financial exercise and also those acquired up until January-May of the following year, representing the approval of the balance sheet.

There have been adjustments for the provisioning regime, banks having the right to deduce a 25% from the net value of the credits with debts that are more than 90 days past due or that included initial judicial procedures.

There have been changes in restructuring the credit regimes, adjustments of value title with fixed income, while the deposits have been attributed an adjustment coefficient from 100% to 40%.

Thus, public authorities are required not to apply pro-cyclic policies during the phase of economic cycle.

Romania signed a Stand-by Arrangement, thus obtaining a 13 billion euro loan from the IMF, the rest of the 20 billion being financed by the EC and EB.

Romania has successfully passed all the quarterly evaluations made under these programs and has achieved a big part of its objectives.

**Concluding**, Romania needs to wait until it is ready for this process, be it in 3, 5 or 10 years.

A point of continuity is represented by the process of finding solutions for converging quicker to the euro area.

A second research issue is constituted by the careful analysis of the negative effects that this convergence process can have over Romania's economy. The effects should be analyzed no matter if the process is a hasty one or not.

Finally, the third and the most important research issue, considering the economic aspect and the pressure it has on the population, could be the in detail analysis of other possible trajectories for the Romanian economy based on the idea that the convergence process might not take place.