MONETARY INTEGRATION BEYOND THEORY - EURO AREA PRACTICAL ACHIEVEMENTS

Adina CRISTE, PhD *

Abstract

Concerns about the monetary integration issue have lasted for over five decades, outlining several criteria which embody the theory of optimum currency areas. Although the European monetary integration pattern is not based on this theory, it often serves as a reference in assessing the opportunity of adopting the euro for the candidate countries. Based on the optimum currency area criteria, the paper focuses on the euro area experience, and identifies some specific features for this currency area. These particularities are both in terms of theoretical criteria and in terms of recent challenges at the European level, challenges that require a viable reform for euro area in the near future.

Keywords: optimum currency area, economic convergence, political decisions

JEL Classification: F15, F45

1. Introduction

The theory of optimum currency areas is considered as a reference in the assessment of the Euro adoption availability for Euro Area countries, as well as of the rationality of the same framework for the candidate countries to this monetary union.

The theoretical contributions, developed and tested since the seventh decade of the last century, define the optimum currency areas (OCA)[1] on the basis of six fundamental criteria which must be meet by

* *Senior Researcher II, "Victor Slăvescu" Centre for Financial and Monetary Research, Romanian Academy, Bucharest.*

[1] *The reference point of the monetary integration theory is Robert Mundell's article "The Theory of Optimum Currency Areas," published in 1961 in the American Economic Review, and the source of the idea is temporally between 1955 and 1956 when, in the dissertation "Essays in the Theory of International Capital Movements", Mundell starts from a critical analysis of the flexible currency regime and develops the optimal concept of a currency regime according to the mobility of the factors of production.*

member countries of a currency area (see Table 1). There are three economic criteria, which in fact constitute the traditional OCA theory, and three political ones, added over time due to the limits identified. The economic criteria highlight that giving up to the exchange rate instrument as an adjustment mechanism is a cost that increases in the presence of asymmetric shocks because, by definition, they do not affect all the currencies of the member states of that monetary union. Based on these criteria, one can appreciate the degree of economic "homogeneity" of a monetary union. Political criteria added over time are the result of attempts to identify different adjustment mechanisms to propagate symmetrical or asymmetric shocks, given the existence of rigidities in the economy: the tax transfers system is aimed to regulate regional imbalances within a monetary union; the homogeneity of preferences has rather the role to prevent the contradictory effects generated by specific or common shocks.

Table 1

The Synthesis of OCA theory

Criteria	Observations
Labour Mobility (laid down by Robert Mundell)	*- OCA is that region where people can move easily in response to economic incentives.* - this criterion addresses ways to minimize the negative effects of an asymmetric shock within a currency area.
Product diversification (laid down by Peter Kenen)	*- countries whose production and consumption are widely diversified and have similar economic structures could form an OCA.* - the more similar economic structures have member states, the lower the incidence of asymmetric shocks
Economic openness (laid down by Ronald McKinnon)	*- countries with a high degree of economic openness, and with a high degree of mutual trade, are qualified to constitute an OCA.* - in conditions of a liberalized trade, the prices of tradable goods are the same, both inside and outside a country, i.e. they are independent of the exchange rate (exchange rate variations do not influence the country competitiveness).
Fiscal transfers	*- OCA is that region in which the member countries get mutually financial support, in case of adverse shocks.*
Homogeneity in policy preferences	*- the member countries of an OCA must have a broad consensus on how to manage shocks.*

	- the lack of homogeneity over the economic policy decisions taken at the Union level can produce contradictory effects, which in turn can create tensions in interstate relations - the criterion is based on the existence of economic "homogeneity" of countries, quantifiable by at least indicators such as public debt, economic deficits, inflationary history, etc.
Political integration	*- when common monetary policy gives rise to conflicts between national and supranational interests, the member countries of an OCA must accept costs in the name of the ”common destiny”.*

Source: Author's synthesis

Theoretically, a currency area which has a higher level of flexibility (concerning the factors of production, reflected also by wages), a higher degree of business cycle synchronization[2] and with greater structural similarities of their economies is less likely to be faced with the propagation of asymmetric shocks. It is assumed that the lack of such economic features (flexibility, synchronization, structural similarity) or their insufficiency could be offset by certain adjustment mechanisms activated due to the fulfilment of the political criteria - alongside the common monetary policy, the tax transfers between regions or between currency area member countries, and the implementation of macroeconomic measures at national level, which do not conflict with those of other Member States, are important elements for the optimal functioning of a currency area.

As a principle, the opportunity for joining a currency area depends on the dimension of its costs, compared to the benefits of such a decision.

2. Euro Area and the OCA criteria

The Euro Area project is based on a monetarist view, and the principles underlying its working are set out in the two European treaties – the Maastricht Treaty, whereby the entry into the third phase

[2] Although it is not explicitly mentioned amid the theoretical criteria of an optimal currency area, the business cycles synchronization can be seen both as a result of a diversification in terms of productive and commercial activity, and as a high degree of economic openness. In addition, the synchronization of economic activity is seen as a prerequisite for adopting similar macroeconomic policies, directly related to the OCA criterion on homogeneous preferences.

of the Economic and Monetary Union (adopting the euro as a single currency) is conditioned by the achievement of a sustainable nominal economic convergence of the candidate countries, and the Treaty of Amsterdam, with its “Stability and Growth Pact” (SGP), a “fiscal regulation” for the functioning of the euro area.

The analysis of factors underpinning the functioning of Euro Area reveals a widening and a reinterpretation of the OCA theory criteria, the concept of economic convergence being, besides the nominal component, complemented with the real side of the economy[3]. Thus, the economic adjustment mechanisms in a currency area, also found in the OCA theory (the labour and capital mobility), are taken into account. In addition, the importance of the free movement of goods and services among Euro Area countries is also highlighted, in close connection with the degree of economic openness (a traditional criterion of OCA theory). In this context, it is assumed that the factor mobility, and more generally, the structural flexibility of economies contributes to the increasing of income convergence and to the improvement of adjustment capacity to asymmetric shocks spread across Euro Area countries. Such a feature is reflected in price and wage flexibility, but also in the ability of labour and capital factor to move towards more profitable businesses, thus mitigating the gap between the business cycles of monetary union member countries. Regarding the real income convergence in the currency area, it is assumed that the investments are directed from developed countries (with higher incomes) to those with lower incomes, while the labour factor moves in the opposite direction - from the poorer countries to those richer.

3. Features of the Euro Area Functioning

The period since the creation of the single currency area in Europe is not without major events that have imprinted a sinuous trajectory of the “common destiny” for its member countries. Many challenges and political shocks have put their mark on the common currency developments (the divergent evolutions of economies, the Brexit shock, the terrorist attacks, the sovereign debt crisis, the

[3] *The nominal economic convergence indicators are provided for in the Maastricht Treaty, but regarding the real economic convergence there are no explicit indicators stipulated in any treaty; instead, they are conventionally accepted - GDP per capita, labour productivity, unemployment or employment level, etc.*

increase in unemployment, especially among young people, controversial elections, etc.), that the optimism of expectations about an enhanced cohesion between member countries has turned into pessimism, emphasizing the Euroscepticism.

Designed to function as a macroeconomic stability generator, improving development and convergence, the Euro Area has created a credible monetary policy environment and has contributed to the financial integration. However, many of the governments have failed to ensure an adequate fiscal discipline or to implement structural reforms as to improve the adjustment mechanisms needed for the proper functioning of a monetary union.

In the first stage of Euro Area (1998-2007), the member countries enjoyed a stable macroeconomic environment with low interest rates, low inflation expectations and a stable euro exchange rate, in the context of a common monetary policy oriented towards stability. Nevertheless, in this period, it has been registered significant macroeconomic imbalances and an increasing competitiveness gap between countries (Criste and Lupu, 2012), which have been attributed to the pro-cyclical stance of national fiscal policies, as well as to the postponement of structural reforms. The poor financial supervision policy and the rapid increase in cross-border capital flows have been factors that have exacerbated macroeconomic imbalances, especially since the latter have not led to a real economic convergence of the emerging economies, in the absence of an adequate institutional and structural framework for an efficient capital allocation in these economies (Panait, 2015). Since the global financial crisis, the economy of Eurozone has stabilized, and the economic growth is gradually improving. Nevertheless, the member countries have divergent economic developments, reflected by the actual income gap, which will ultimately affect the social cohesion within the monetary union (Criste and Lupu, 2013).

Addressing a broader subject, namely, the structural crisis of capitalism, Streeck (2013) also touches on the issue of structural differences among the Euro Area economies and points out that the common currency regime in Europe is an adequate monetary anchor for the German and Nordic countries, but it is not a favourable one, for the southern Europe. He highlights that in tackling the Greek crisis and the situation of the Mediterranean countries, the structural problems have been minimized, while the problem of their debt has been exaggerated. Although, after the recent crisis, the Greece's credibility has been restored to financial markets, its economic and institutional structures have continued to be inappropriate for the Euro monetary regime.

The nominal economic convergence

In the run-up to the Euro Area functioning, there was a proclivity to convergence between countries, in terms of inflation and interest rates. However, the more pronounced convergence of the latter than the first ones led to a decline in the real interest rates, which has encouraged the speculative capital inflows to the lower-income countries. One of the features of the Euro Area is the persistence of the inflationary gap between member countries. Brůha and Podpiera (2007) explain this phenomenon as a result of the intensive convergence process of the candidate or new member countries to the Euro Area, based on the technological improvements and capital inflows. As a result, the real exchange rate is subject to significant appreciation, and in the run-up to the euro adoption, the candidate countries are constrained by the conflict between the nominal exchange rate stability and the price stability. Even though the nominal exchange rate appreciation will ease the general process of economic convergence, before the euro adoption, the new single currency will mean a significant gap in inflation vis-à-vis the rest of the Euro Area countries.

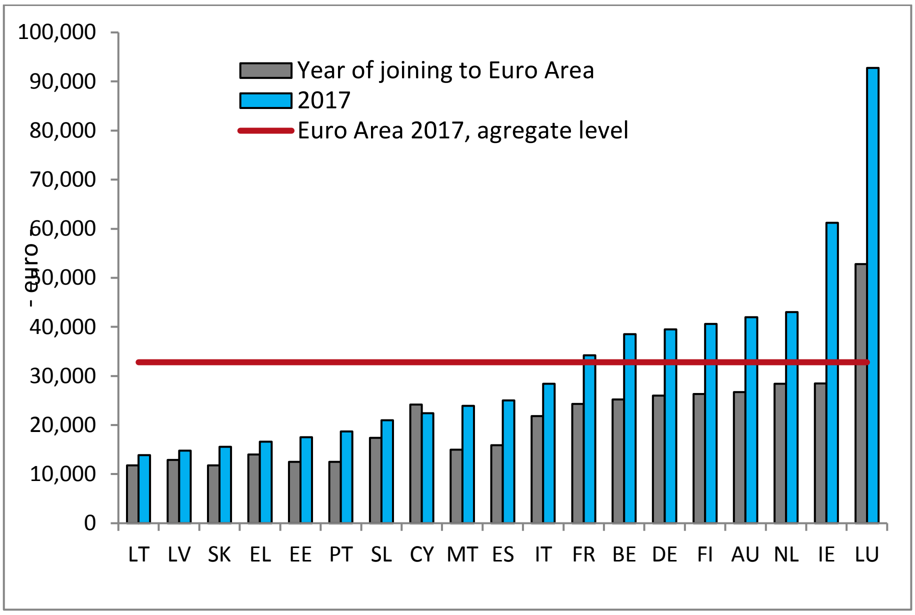
The real economic convergence did not occur among member countries. The GDP growth and the productivity growth did not reduce income disparities between richer and poorer countries.

The level of development of the Euro Area countries, in terms of GDP per capita, is various: on the one hand, the most of the founding countries of the Economic and Monetary Union (EMU)[4] register similar values of this indicator, but, on the other hand, these values are noticeably lower for the new member states of Euro Area (Slovakia, the Baltic States) (see Chart 1).

[4] *The eleven founding countries of EMU are: Germany, France, Italy, Austria, Belgium, Netherlands, Luxembourg, Spain, Portugal, Ireland and Finland.*

Chart 1

GDP per capita for Euro Area member countries (current prices, PPS)



Source: Eurostat data (updated on 31 July 2018)

The convergence analysis of Euro Area countries identifies two periods[5]: from the adoption of the euro to the global financial crisis (2000-2007) and after the financial crisis (2008-2017). In the first period, there is a slowdown in the convergence process - only Ireland, Malta and Slovakia register the highest growth rates of GDP per capita (see Chart 2). In the second period, Ireland managed to recover the

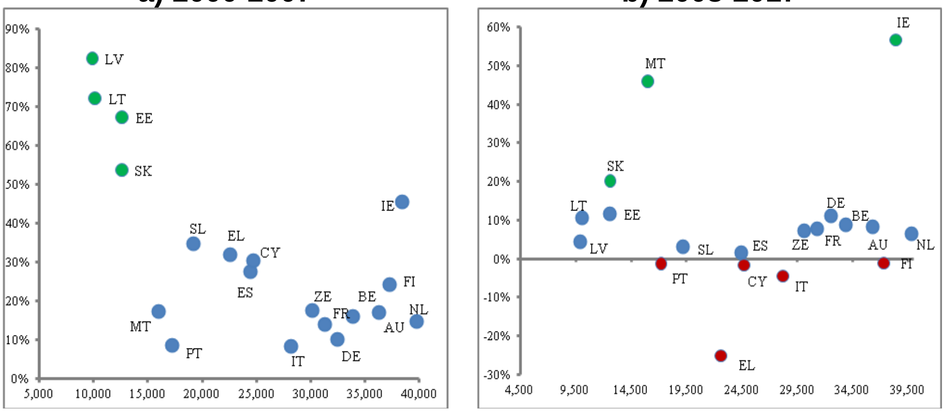
[5] *The convergence process is evaluated on the basis of two complementary indicators, according to the model described by Sala-i-Martin (1996): 1) the beta-convergence indicator, reflecting the speed of recovery of the gap between the less advanced and the advanced countries, starting from the observation that the less developed economies have higher economic growth rates, and in the long-run they are approaching the advanced countries by the so-called "catch-up" process; 2) the sigma-convergence indicator, which reflects the decrease over time of the dispersion level between countries regarding the GDP per capita. Both indicators taken together are relevant to assess the quality of the convergence; only a faster growth of lower-income countries does not automatically mean a decrease in income dispersion among countries.*

losses suffered by the global financial crisis. Countries worst hit by the European sovereign debt crisis (Italy, Cyprus, Portugal, Greece, Spain) are also experiencing the biggest losses in terms of convergence of the level of development.

Chart 2

The convergence of the development level between Euro Area member states

a) 2000-2007 **b) 2008-2017**



X-axis - GDP at market prices (euro per capita):2000 (Panel a), and 2007 (Panel b); Y – axis - real GDP growth rate in 2007 compared to 2000 (Panel a), and in 2017 compared to 2008 (Panel b).

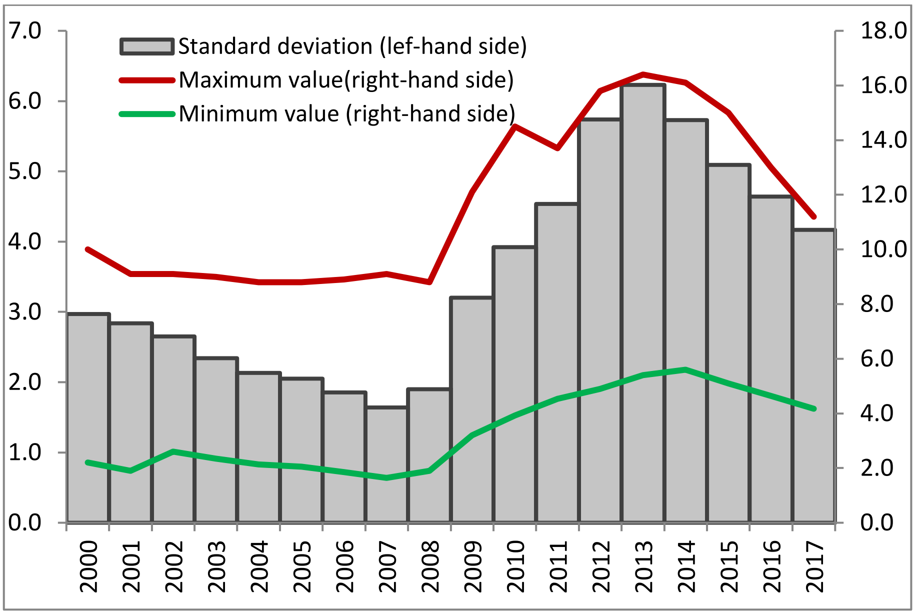
Note: 1) ZE (Euro Area); BE (Belgium); DE (Germany); EE (Estonia); IE (Ireland); EL (Greece); ES (Spain); FR (France); IT (Italy); CY (Cyprus); LV (Latvia); LT (Lithuania); MT (Malta); NL (Netherlands); AU (Austria); PT (Portugal); SL (Slovenia); SK (Slovakia); FI (Finland); UK (United Kingdom). 2) Euro Area: ZE11-2000, ZE12-2006, ZE13-2007, ZE15-2008, ZE16-2010, ZE17-2013, ZE18-2014, ZE19.

Source: estimations based on Eurostat data (July 2018)

The convergence process of the unemployment rates has developed until the global financial crisis outbreak, but subsequently the gap between countries deepened. In Greece and Spain, for example, the highest levels of the unemployment rate are maintained (after 2011, the values of this indicator exceed 20%), while at the opposite end Germany has a significant reduction in unemployment (below 4%)[6]. The Chart 3 illustrates the band in which the unemployment rate varied over 2000-2017.

Chart 3

The unemployment rate in the Euro Area countries, 2000-2017 (annual average, % of active population)



Source: illustration based on Eurosatat data

Business cycles synchronization

Theoretically, the business cycles synchronization (the cyclical convergence of economies) is a fundamental condition for the success of the monetary union, but the global financial crisis occurrence has shown that financial cycles have a decisive role in the economic fluctuations (Praet, 2014), given that the capital movement, by the credit allocation in the economy, affects the economic activity.

The business cycles synchronization and the similarity of shocks are highlighted by empirical studies which notice the rising of these trends after the euro adoption (Stavrev, 2008) and until the global financial crisis. Giannone et al. (2010) points out that, as compared to the previous time, there are no significant changes in the trajectories

[6] *According to Eurostat data, updated on July 2, 2018.*

of the economic cycles since the euro adoption. From this point of view, countries are classified in two main groups. The first one includes those countries that have similar levels of GDP per capita since the early 1970s, maintaining a synchronization of economic cycles, during 1970-2006. In the second group there are countries characterized by a higher level of heterogeneity; they are also generally more volatile. The study results confirm the existence of the Eurozone “core-periphery” model and show that the loss of exchange rate flexibility as well as of the monetary policy independence has had no effect on fluctuations in economic activity between countries, although countries are heterogeneous in terms of competitiveness and real interest rates. However, recent studies (Campos and Macchiarelli, 2016), which also take into account both the global financial crisis period and the post-crisis period (2008-2012), highlight the manifestation of a divergence or a de-synchronization of business cycles between the core and peripheral countries of Euro Area, on the one hand, and an increase in the business cycle synchronization between the core countries, on the other hand.

Over the past years, some research has various results on the cyclical convergence in the Euro Area. De Grauwe and Ji (2016) point out that the average correlation of the bilateral business cycle is higher within this monetary union than outside, though the authors do not consider whether the degree of synchronization has evolved over time. Enderlein, Letta et al. (2016) reveal a lack of improvement in the synchronization of business cycles since the creation of the EMU.

Furthermore, Bayoumi and Eichengreen (2017) emphasize once again that the Euro Area does not correspond to an OCA in response to aggregate supply and demand shocks, and the endogeneity hypothesis is not verified.

Recent research highlights that, while the trade contributes to the business cycles synchronization in Euro Area, the different labour market regulations (Duran and Ferreira-Lopes, 2015), as well as the fiscal and structural disparities between member states (Inklaar et al., 2008) work in the opposite direction.

Euro Area and the institutional matter

The success or failure of a monetary union depends not only on the presence or the absence of the convergence of countries' economic structures and of the business cycles synchronization, but also on the institutional factors.

A vulnerable institutional element of the EMU refers to its unsuitable financial and fiscal architecture, because it aggravates the financial fragility of the Union and does not provide favourable conditions for sustaining the long-term economic growth, entailing critical economic and political divisions between member states. Fragmented capital markets and the incomplete project on the functioning of the banking union hinder the Euro Area to take full advantage of the monetary integration benefits and to achieve a better risk-sharing through the market mechanisms. Tax rules have proved to be insufficient to reduce the public debt, and the weaknesses in the EMU fiscal architecture have overburdened the European Central Bank (ECB), generating widespread political tensions among Eurozone member states.

It critically analyses the experience of the euro area during the crisis about the importance of the of the institutions' operation

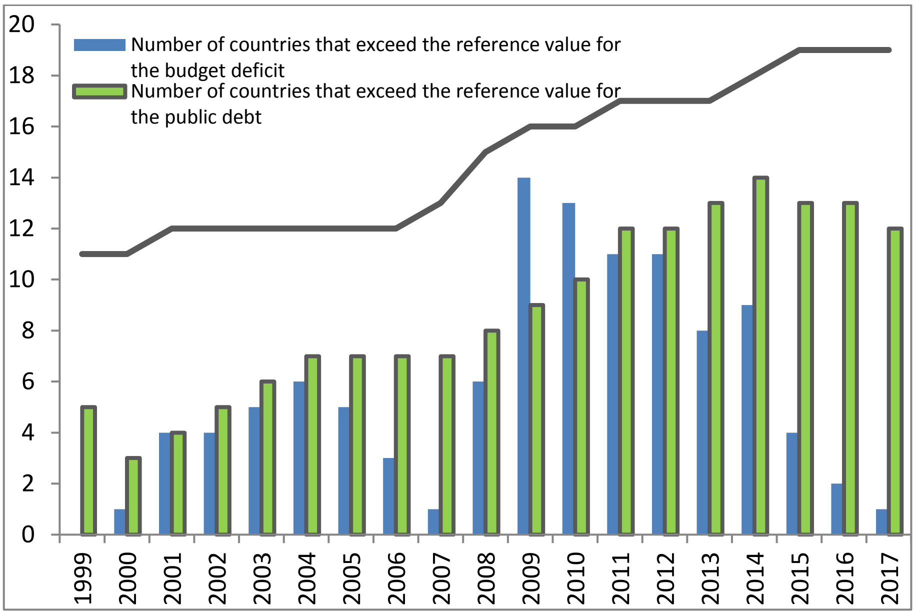
Some studies, such as De Grauwe (2010), critically analyse the experience of the Euro Area during the crisis about the efficiency of its institutions, and one of the main concerns of EMU refers to the poor political integration. As far as the tax rules are concerned, although to be effective, they need to be implemented by a single institution. The functioning of institutions is also important in terms of the risks posed by the high levels of public debt registered in many Euro Area countries.

The high degree of heterogeneity of the Euro Area is a factor driving divergences between national and supranational interests. Moreover, there is a rather large uncertainty concerning the functioning of the Euro Area institutions, and this is a rational motivation for some EMU candidate countries to position themselves in the ”waiting area” until at least the rules of operation of the Euro Area institutions are clarified.

In the failing of the adjustment mechanisms required to the functioning of a currency area, specifically the lack of intra-Community fiscal transfers, the member countries should have adequate fiscal policy space or expand it so that, in times of crisis, the fiscal policy can support the national economy. The lack of the fiscal discipline is a long-term matter for the Euro Area, as many countries have exceeded the limits imposed by the Stability and Growth Pact, both before and after the global financial crisis outbreak (Chart 4).

Chart 4

The number of countries exceeding the reference values for the nominal convergence criteria of fiscal category



Source: illustration based on Eurosatat data

The country differences in the level of indebtedness, as well as the poor fiscal coordination, are reflected on the government bond yields curve, which may also lead to significant differences between countries in terms of lending conditions. On the other hand, as Mongelli (2013) mentions, the Euro Area can be functional and beneficial to all member states, even without a fiscal union, but provided that the regulatory mechanisms are introduced along with the banking union institution.

Table 3

The Euro Area features in terms of OCA theoretical criteria

OCA CRITERIA	THEORETICAL MOTIVATION	EURO AREA
Labour mobility	Validation the running of adjustment mechanisms	Insufficient mobility – the labour migration problem (disequilibrium in labour market)
Product diversification	Structural alignment of member states (economic similarities)	Product diversification
Economic openness (business cycles synchronisation)	Cyclical alignment of member states (business cycles synchronisation)	High degree of economic openness, but differences in terms of business cycles synchronization
Fiscal transfers	Validation the running of common adjustment mechanisms	Not available
Homogenous preferences (similar economic policies)	Cyclical and structural alignment (business cycles synchronisation and economic similarities)	Incomplete
Financial integration	Financial cycles synchronisation	Incomplete. Uncertain positive effects, as a consequence of pro-cyclical character (stimulates economic growth during ”buoyant” times, and enhances disturbing factors during crisis)
Political integration	Validation the functioning of common institutions	Incomplete: - common monetary policy (and common currency); - National fiscal policies restricted by SGP.

Source: author's synthesis

In the Euro Area, the variety of performances related to the OCA criteria shows that the decision to become member of a currency union is not a definite one, being influenced by internal factors, by political agreements between countries, either from the inside, or from the outside of the currency union, but exercising a strong influence.

Nevertheless, the problem of the Euro Area is not limited to failing to meet some of the theoretical criteria, quantifiable; it is more profound, linked to its intrinsic structure, to the way it was designed to work, but also to the cohesion capacity of the political leaders of the member states.

4. Challenges of the euro area reform

Although there is a broad consensus on the EMU vulnerabilities and the need to reform it, opinions do not converge on how to settle these shortcomings. Two options are outlined, based on the different views related to the correction of the functional deficiencies.

One of them refers to applying more flexible rules and instruments aims at better stabilizing the Euro Area and for a better risk-sharing within the monetary area (common budget mechanisms or even fiscal union) to support member states in times of financial stress. In this line is the opinion expressed by Stiglitz (2016), which states tremendously that the Euro project was made by unskilled politicians in the economic field that have created their own reality. The structural nature of the challenges noticed, particularly since the crisis of 2008, refers to the lack of a comprehensive mechanism for managing the common risks among member countries and to the specificities of common currency policies that block economic growth and generate deep social problems increasing unemployment. Moreover, the austerity program promoted by the IMF and the European Commission for the Euro Area countries hit by the crisis (Greece, Ireland, Spain, and Portugal) has accentuated domestic economic problems. The recession and prolonged crisis experienced by these countries have been determined by the strictly following the instructions on the implementing the austerity programs, and the current rules on limiting the budget deficit and public debt have hindered an expansionary of the national fiscal policy needed to support the economic recovery and to exist the crisis. The Euro Area reform, both in terms of developing those structures that contribute to the effective support of less developed (i.e. more vulnerable) countries through allocating money and cross-border guarantees, and by functioning a risk-sharing system[7], could provide for the success of the monetary integration process in Europe.

The second option, which rejects the idea of risk-sharing, is aimed at applying tighter rules and stronger incentives to drive more prudent political behaviour at national level. In this respect, market discipline is indispensable for ensuring fiscal responsibility and, implicitly, financial stability. The supporters of this view include Sinn (2014) accusing vulnerable countries, the Southern Europe, of abandoning the concept of fiscal responsibility.

There is a tendency to consider the two visions as mutually exclusive and the postponing of the monetary union reform, in one way or another, due to the lack of consensus among member states, seems to hamper/hinder/impede the Euro project advancement. The choice between the two options, either increasing the risk-sharing capacity or improving incentives and financial discipline, is a false problem, as Bénassy-Quéré et al. (2018), because the revision of the Euro Area's financial structure and its consolidation implies not only crisis prevention tools (incentives, strict rules), but also levers to mitigate the effects of the possible crises, as the risks exist no matter how appropriate are the preventive incentives. Also, the design of risk-sharing mechanisms can also be done to mitigate or even reduce the risk of moral hazard, and the risk-sharing tools can play an important role in improving discipline. Therefore, a risk-sharing system, along with the application of appropriate incentives (rules and instruments aims to increase market discipline) should be seen as complementary, not substitutive solutions.

---

[7] *Stiglitz (2016) identifies three possible options for reforming the Euro Area: 1) adopting a strategy aims to maintain the Eurozone in its current form, but which requires insufficient interventions to direct the region into a prosperity trajectory; 2) adopting a strategy to return to the previous situation by leaving some Euro Area countries and creating a new currency area, which could have serious consequences for some countries. Challenges arise in managing the current account deficit and the fiscal deficit, in managing the debt problem, or in creating a new financial transaction system; 3) the implementation of a flexible strategy related to the euro currency statute: a monetary arrangement by which each country can carry out transactions in euro but with different values: a Greek currency should have a value in relation to the Cypriot euro and another against a German euro. Such a flexible strategy preserves the concept of a single currency and monetary union by creating a framework allowing sufficient flexibility so that the Euro Area is operational.*

In recent years, the issue of deepening the Economic and Monetary Union is being debated amid more acute problems related to the persistent flow of migrants in EU countries, the terrorist risks and the UK exit of the EU (i.e. Brexit). In addition, the lack of consensus among EU member states on the speed and degree of integration in different European regions hamper the process of joining the Eurozone in the near future.

5. Conclusions

The optimum currency areas theory is only a framework for analysing the opportunity for adoption a single currency, but it cannot respond to this problem in a categorical manner - it needs to be applied in a dynamic environment. Although the OCA criteria are important, they are not necessarily preconditions for achieving monetary integration; they serve as orientation towards identifying possible sources of macroeconomic imbalances associated with the joining to a currency area.

The decision on the euro adoption has been proved to be primarily a political one. This is how the Eurozone was not considered to be an optimum currency area even during its formation, as the cyclical synchronization was limited, and the adjustment mechanisms were inappropriate - the low labour mobility and the lack of fiscal transfers.

As a political project, the Euro Area was created without a proper understanding of what a monetary union means. In addition to the heterogeneity among the member states and the failure to design joint institutions capable of ensuring its functioning, the different visions of European leaders, particularly those in Germany and France, make it difficult and delaying the decision to rethink and correct the functioning of the Euro Area.

At the same time with the Brexit shock and with the postponing of the structural problems' resolution at the Euro Area level, are amplified not only the challenges of the EU future and its member countries (from a political, institutional and legal perspective), but also the position of the Euro Area candidate countries on the euro adoption.

Irrespective of the European developments, Romania is bound to consolidate its economy and to implement policies aims at improving the competitiveness and the shock absorption capacity, creating the Romanian's ability to be integrated effectively into the global competition.

References

1. Bayoumi, T., Eichengreen, B. (2017). ”Aftershocks of Monetary Unification: Hysteresis with a Financial Twist”. IMF Working Paper 17/55, March.
2. Bénassy-Quéré, A; Brunnermeier, M; Enderlein, H; Farhi, E; Fratzscher, M; Fuest, C; Gourinchas, P-O; Martin, P; Pisani-Ferry, J; Rey, H; Schnabel, I; Véron, N; Weder di Mauro B; Zettelmeyer, J (2018), ”Reconciling risk sharing with market discipline: A constructive approach to euro area reform”, CEPR Policy Insight No. 91.
3. Brůha, J., Podpiera, J. (2007). ”Transition Economy Convergence in a Two-Country Model: Implications for Monetary Integration”, ECB Working Paper No. 0740.
4. Campos, N.F., Macchiarelli, C. (2016). ”Core and Periphery in the European Monetary Union: Bayoumi and Eichengreen 25 Years Later”, Economic Letters, 147, pp. 127–130.
5. Criste, A, Lupu, I. (2012). ”A Critical Analysis Regarding The Euro Area Governance”, Ovidius University Annals, Economic Sciences Series, Vol. XII, Issue 1, pp. 170-174.
6. Criste, A, Lupu, I. (2013). ”The European Project beyond the Financial Crisis”, Ovidius University Annals, Economic Sciences Series, Volume XIII, Issue 1, pp. 179-183.
7. De Grauwe, P. (2010). ”The Financial Crisis and the Future of the Eurozone”, Bruges European Economic Policy Briefings, No. 21.
8. De Grauwe, P., Ji, Y. (2016). ”International Correlation of Business Cycles in a Behavioral Macroeconomic Model”, CEPR Discussion Paper No. 11257.
9. Duran, H.E., Ferreira-Lopes, A. (2015). ”Determinants of Co-movement and of Lead and Lag Behavior of Business Cycles in the Eurozone”, Working Papers Series 2 15-02, ISCTE-IUL, Business Research Unit (BRU-IUL).
10. Enderlein, H., Letta, E. et al. (2016). ”Repair and Prepare: Growth and the Euro after Brexit,” Gütersloh, Berlin, Paris:

Bertelsmann Stiftung, Jacques Delors Institut – Berlin and Jacques Delors Institute in Paris.

11. Giannone, D., Lenza, M., Reichlin, L. (2010), ”Business Cycles in the euro Area”, in: Alesina, A. and Giavazzi, F. (eds.), *Europe and the Euro*, University of Chicago Press, London.
12. Inklaar, R., Jong-A-Pin, R., de Haan, J. (2008). ”Trade and Business Cycle Synchronisation in OECD Countries - A Re-examination”, European Economic Review, 52(4), pp. 646–666.
13. Kenen, P.B. (1969). ”The Optimum Currency Area: An Eclectic View”, in: Mundell, R.; Swoboda, A.K (eds.), *Monetary Problems of the International Economy*. Chicago: University of Chicago Press.
14. McKinnon, R. (1963). ”Optimum Currency Areas”, American Economic Review, Vol. 53, American Economic Association, pp. 717-25.
15. Mongelli, P.F. (2013). “The Mutating Euro Area Crisis: Is the Balance Between Sceptics and Advocates Shifting?”, ECB Occasional Paper Series, No. 144.
16. Mundell, R. (1961). ”A Theory of Optimum Currency Areas”, American Economic Review, vol. 51, pp. 657- 65.
17. Panait, I. (2015), ”Towards the Capital Market Union”, Hyperion Economic Journal, Year III, No.2(3), June, pp. 38-44.
18. Praet, P. (2014). “The Financial Cycle and Real Convergence,” Speech at the Annual Hyman P. Minsky Conference on the State of the US and World Economies, Washington D.C., 10 April.
19. Sala-i-Martin, X. (1996). ”The Classical Approach to Convergence Analysis”, Economic Journal, Vol. 106, No. 437, pp. 1019-1036.
20. Sinn, H-W (2014), ”The Euro Trap: On Bursting Bubbles, Budgets, and Beliefs”, Oxford University Press, Oxford.

21. Stavrev, E. (2008). !What Explains Growth and Inflation Dispersion in EMU?", Czech Journal of Economics and Finance, 58(1–2), pp. 57–67.

22. Stiglitz, J.E. (2016), "The Euro: How a Common Currency Threatens the Future of Europe", W.W. Norton & Company, New York.

23. Streeck, W. (2013), "Buying Time: The Delayed Crisis of Democratic Capitalism", Suhrkamp Verlag Berlin.