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The Optimum Currency Area. Is the Euro Zone an Optimum Currency Area?

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Abstract

Although analyzed in terms of criteria for defining an optimum currency area, we could appreciate that EU fulfils certain criteria established within the theory of the optimum currency area. But in comparison with USA or Canada, the EU has less premises to effectively become such an area. The Economic and Monetary Union considered, from a certain point of view, the most ambitious and risky project of the European construction, is the result of a fundamental political decision within a powerful economic component. Despite the statute of sub-optimum currency area, there are still a series of arguments, both supportive and critical, for the settlement of an Economic and Monetary Union within the European space.

Key words: Optimum Currency Area, Monetary Integration, Currency, Economic and Monetary Union

JEL Classification: E 42, F36

The Theory of Optimum Currency Areas is based on the contribution of Robert Mundell, the pioneer of specific field researches (1961) – the issue being subsequently resumed by other economists, such as R. Mc Kinnon (1963), Kenen (1969) etc.

Mundell analyzed the criteria underlying an appropriate functioning of the Monetary Union ever since the European Monetary Union was still at the draft stage. We can presently state that the first researches related to the theory of the Optimum Currency Areas perceived very well the challenges to be faced by those countries which intend to form a monetary union, although the theory evolved along the way.

According to economists who studied the object matter of optimum currency areas, the criteria to be fulfilled by a certain country before its adhesion to a monetary union for the purpose of achieving sustainable macroeconomic balance are the following:

1. Mundel (1961): Mobility of production factors. In the event the factors of production are mobile inside the countries which form a monetary union, a country experimenting adverse shocks might no longer be affected by unemployment and recession.

2. McKinnon (1963): Degree of openness for an economy. McKinnon further argues that when a certain country experiments an opposing shock, in the event it is commercially integrated according to trade relations established with other countries of the Union, the destructive effects – unemployment and recession – should be felt to a lower extent.

The degree of openness of an economy can be calculated in various ways, the most popular being $(\text{Exports} + \text{Imports})/\text{Gross Domestic Product}$.

The criteria elaborated by McKinnon raises the issue of dimensioning a currency area. The author argues that the optimum currency area is definitely not the entire world. It is rational that states such as USA, Japan, EU should have flexible exchange rates. Although a considerable number of commercial transactions are carried out between them, the weight of these trading operations in GNP (Gross National Product) of every state is insignificant. For instance, the USA trade with Western Europe represents only 2% of the GNP of USA.

3. Kenen (1969): Degree of diversification of the production. The more diversified is the structure of the production generated by a country, the lower the costs incurred for abandoning the proper currency.

Other criteria to be fulfilled by a country in order to adhere to monetary union incurring costs as low as possible are the following:

- Scitovsky (1958) and Ingram (1969, 1973): Financial integration. As countries become more integrated and financially driven within the Union, they find it easier to obtain funds for triggering production especially when they are facing adverse shocks.

- Fleming (1971): Similarity of inflation rates. The large differences between the inflation rates are dangerous when they are generated by structural differences in economy or caused by different policies. Yet, there are also differences deemed as conventional, for instance those due to Balassa-Samuelson effect which create inflationary pressures until the catching-up process is complete.

- The flexibility of prices and salaries, significant especially on short term (the faster the prices decrease the more rapidly the competitiveness of a country improves.

- Political integration. It might be the most important precondition for an optimum currency area.

Analysed in terms of criteria for defining an optimum currency area, EMU is characterized by a high mobility of capital (including a certain degree of real integration of capital markets), a great diversity of production, a high degree of commercial openness but a reduced mobility of the work force.

The majority of the shocks which the European Union had to confront so far were symmetrical; nevertheless, the depth of specialization, which is a consequence of the establishment of the Single Market, shall determine the increase of probability that asymmetrical shocks might occur in the future.

According to the definition formulated by Mundell, EU does not constitute an optimum currency area, mainly due to the reduced mobility of the "work force" factor. Actually, the mobility of this factor is more reduced in the European Union, even inside each Member State, as compared to the USA or Canada. However, the author of the theory regarding the optimum currency space, Mundell, is one of the fervent supporters of the idea of European monetary unification.

As a whole, we could appreciate that EU fulfils certain criteria established within the theory of the optimum currency area, but in comparison with USA or Canada, the EU has less premises to effectively become such an area. Moreover, the absence of budgetary federalism in the EU constitutes a danger as budgetary transfers are considered one of the more appropriate adjustment mechanisms.

As regards the criteria used by the theory of the optimum currency area, some economists (J.A. Frankel and A.K. Rose) raise the issue of the endogenous character of these criteria, reaching the conclusion that “a country might accomplish the criteria for entering a monetary union rather < ex post > than < ex ante >”¹.

Therefore, in the event the criteria used (degree of commercial openness, correlation of economic cycles, symmetry of shocks, mobility of the work force, system of fiscal transfers) are endogenous, the comparison of the European Union, made ex ante (meaning before the monetary unification), with the USA or Canada, considered ex post (that is after the monetary unification of these countries) has no sense. It results that the assessment of the success chances of the European Monetary Union and of its effects on the participating countries cannot be appropriately carried out, starting exclusively from the past situation of these countries. This happens as the structure of these economies undergoes important changes by their participation to the European Monetary Union.

Theoretically, the effects of the economic integration are ambiguous: the development of the trade between participating countries fosters the synchronization of economic cycles, therefore reducing the probability that asymmetrical shock appear; at the same time, it encourages the depth of specialization which increases the probability that asymmetrical shocks occur. Yet, the empirical data analyzed by J.A. Frankel and A.K. Rose indicate very clearly that, as the degree of economic integration increases, the level of synchronization of the economic cycles advances also. Consequently, we can assume that the EU Member States shall accomplish a higher degree of synchronization of the economic cycles through their participation to the European Monetary Union, thus reducing the possibility that asymmetrical shocks occur.

Other authors (such as B. Eichengreen) demonstrate that between the economic integration and the monetary integration lies a symbiotic relation, insofar the countries for which the creation of the Single Market determined significant boosting of the bilateral trade are also the best prepared countries for the monetary integration (participation to the Economic and Monetary Union)². Therefore, we could state that the economic integration

¹ Frankel J.A., Rose A. K., *Is EMU More Justifiable Ex Post than Ex Ante?*, *European Economic Review*, 41, 1997, p. 752- 760

² Eichengreen B., *European Monetary Unification: Theory, Practice and Analysis*, The MIT Press, Cambridge, Massachusetts, London, 1997.

encouraged the preparation of the European countries for monetary integration. Conversely, it is known that, generally, the stability of exchange rates fosters the development of the international trade and that, as far as the European Union is concerned, the monetary integration, accomplished under the form of SME, really favoured the carrying out of the economic integration. These findings support the idea that the Economic and Monetary Union and the Single Market could form a "vicious circle" which might lead to further economic and monetary integration into the EU.

On the other hand, it is true that a single currency supposes the definitive loss of the autonomy of the national monetary policy. Actually, the national monetary policy entirely disappears being replaced by a common monetary policy. But in the case of the European Union, the loss of monetary sovereignty was a mere acknowledgement of a factual situation already created by the liberalization of capital movements, generated before the adoption of the single currency.

Starting from the above mentioned "triad of incompatibilities" or the "impossible trinity" (incongruence between the free movement of capitals, the fixed exchange rates and the independent monetary policy), another author, P. Kauffmann, examines, in terms of the triad, the EU situation, showing that, for European countries, the monetary unification is the best option³ among all possible solutions.

The conclusions of the author cited are based on the following observations:

a) Since 1991, the EU faces a perfect mobility of capitals which Europeans do not want to give up UE;

b) For countries which are members of the EU, a clear preference is ascertained for the stability of exchange rates. The floating of the exchange rate reveals major disadvantages for EU (currency risk, uncertainty) which negatively affects the Single Market. On the other hand, the main theoretical advantage of floating systems - the automatic insurance of the external balance - has not been confirmed by the empirical studies carried out so far; on the contrary, the practice indicated that unbalances could maintain even in the case of floating exchange rates as a certain currency might be permanently overvalued or undervalued.

³ Kauffmann P., *L'euro*, Dunod, Paris, 1999, pg. 44-50.

It results that the monetary union is the best solution for the European Union, even from a theoretical point of view: among the three incompatible elements, the autonomy of the monetary policy, which the European states had already “de facto” given up, namely when they decided to comply with the Bundesbank policy, has been sacrificed.

Therefore, the adoption of the euro currency emerged as a natural choice, intervened under the circumstances of integration the European financial markets. Moreover, the single monetary policy has the advantage of taking into account the interests of all Member States, in contrast with the eventual imitation of the national monetary policy of one of the EU countries.

The Economic and Monetary Union considered, from a certain point of view, the most ambitious and risky project of the European construction, is the result of a fundamental political decision within a powerful economic component. Despite the statute of sub-optimum currency area, there are still a series of arguments, both supportive and critical, for the settlement of an Economic and Monetary Union within the European space.

BIBLIOGRAPHY:

De Grauwe, P. (2003), *Economics of Monetary Union*, Fifth Edition, Oxford: Oxford University Press

Eichengreen B. (1997), *European Monetary Unification: Theory, Practice and Analysis*, The MIT Press, Cambridge, Massachusetts, London

Eichengreen B. (1990), *One Money for Europe? Lessons of the US Currency Union*, *Economic Policy* 10, April, pp. 118-166

Fleming. J. M., (1971), *On Exchange Rate Unification*, *The Economic Journal*, Vol. 81, pp. 467-88

Frankel J.A., Rose A. K. (1997), *Is EMU More Justifiable Ex Post than Ex Ante?*, *European Economic Review*, 41, 1997, pp. 752- 760

Ingram, J.C., (1962), *Regional Payments Mechanisms: The Case of Puerto Rico*, University of North Carolina Press

Ingram, J. C., (1969), *Comment: The Currency Area Problem*”, *Monetary Problems of The International Economy*, (Ed.) Robert A. Mundell and Alexander L. Swoboda, The University of Chicago Press, Chicago, pp. 95-100.

Ingram, J.C. (1973), *The Case for the European Monetary Integration*. Princeton University, Essays in International Finance, No. 98.

Kauffmann P. (1999), *L'euro*, Dunod, Paris, 1999, pp. 44-50.

Kenen, P.B. (1969), *A theory of Optimum Currency Areas: an eclectic view*, in the working paper of Mundell, R. and Swoboda, A. (eds.), *Monetary Problems of International Economy*, Chicago: University of Chicago Press, 41-60

McKinnon, R. (1963), *Optimum Currency Areas*. American Economic Review, Vol. 52, pp. 717-725

Mc Kinnon, R. (2000), *Mundell, the Euro and Optimum Currency Areas*, Stanford University Working Papers

Mundell, R. (1961), *The Theory of Optimum Currency Areas*, American Economic Review 51, Sept., pp. 657-665

Mongelli, F.P. (2002), *New views on the optimum currency area theory: What is EMU telling us?*, ECB Working Paper, 138

Scitovsky T., (1958), *Economic Theory and Western European Integration*, Stanford University Press