The Incompatibility Triangle

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Abstract

Launch of the euro in the late 90s, can be interpreted as a first step towards the monetary system outlined by Mundell. Economists have noted the incompatibility of fixed exchange regime, perfect mobility of capital and the independence of monetary policy, the so-called triangle of incompatibility, which was highlighted by Robert Mundell since 1968. Tommaso Padoa - Schioppa continued his research on the harmonization and convergence required to economic policies in "Financial Europe". The author shows that the triangle is the freedom of movement of capital, the exchange rate stability and the autonomy of national monetary policies. The triangle of incompatibility stems from the fact that they can be combined in their entirety, but only two. The autonomy of monetary policy is the freedom of states to choose the appropriate monetary policy and take appropriate measures in case of recessions.

Keywords: incompatibility triangle, optimum currency area, free movement of capital, exchange rate stability, monetary policy autonomy
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Introduction

A short article published by Robert Mundell in 1961 on the subject of optimum currency areas, will guide long debate over economic policy, namely the exchange regimes (Mundell, R., 1968). The launch of the euro in the late 90s, can be interpreted as a first step towards the monetary system Mundell outlined by more than half a century ago.

A state get a higher profit where there is a highly integrated economic area (Copeland, L., 2008, p. 603-608).

The degree of economic integration may be assessed by reference to commodity markets, specifically the expansion of trade between the integrated members and the market integration, where labor and capital can migrate between the integrated members.

1.Brief history of trade relations of the EU Members

In January 1999, most Member States of the European Union exported between 10-20% of their production to other members of the European Union.The export volume was much higher than that of foreign trade relations between the European Union and the United States, but lower than the exports of federal states that make up the United States of America.

When we relate trade to GDP as a factor of integration of commodity markets, we see that the member states of the European Union's strategy is superior to the exchange rate dollar / euro. However, the volume expansion of the trade between the member states did not provide assurance that the EU is an optimum currency area. Thus, if for electronic products there has been found a convergence of the prices of the member states of the European Union, for the cars there was a significant difference. If in 1990 the prices were different, the changeover has not diminished since 1999 and has not shown differences in price convergence.

The evolution of the volume of trade between EU countries has been fluctuating since 1980, but had a sharp rise later EMU, which shows that it has significantly increased the trade relations between the member states.

2.Interregional trade between the federal states of the US and the trade of the EU member States

The interregional trade in the United States is more developed than that of EU member states, but we have to consider the evolution of the latter in the future years, as the integration process continues.

Experts have estimated that through the launch of the euro, the volume of trade between EU countries will increase three times more than that of the member states. Subsequently, the forecasts became more pessimistic in the sense that it has been contemplated that this growth will be 9%, taking into account the effects that the euro has produced in the first year of release. Meanwhile, in Britain, Denmark and Sweden, countries that have not joined the eurozone, the volume of trade with the euro area increased by 7%. Given the evolution of prices and tradte volumes, it was found that at the moment the euro does not contribute substantially to the amount of the trade in the euro area.

Labour mobility in Europe has not been extended, differences in language and culture discouraged mobility between European countries at a real expansion compared with that of the federal states of the USA. In this regard, Professor Barry Eichengreen of the University of California - Berkeley found that differences between immobility rates are lower and less pronounced in the United States than immobility rates between EU states. In European countries, the rate of immobility of labor is lower because of government policies as well. One example is that the demand for labor in certain states can not be adequately covered because potential employees experience difficulties of distance between their residence and the potential employment, and also because of the lack of funds which could allow them to travel and be hired in other states. Labor mobility rate was 1.7% in the UK, 1.1% in Germany and 0.5% in Italy, compared with the United States, it was 3.1% (Huber, P., 2004, p. 619-624).

3.The first effects of the emergence of the euro

The first decade of the euro was characterized by different economic performances of the member states of the European Union. The European Central Bank's monetary policy has failed to reduce the disparities between states. A negative effect was the divergence of inflation rates which had two consequences. The first was intrinsically linked to the euro and long-term policies in exchange rates, high inflation in Ireland and Southern Europe (Portugal, Italy, Spain and Greece). To reach the level of Germany, economic growth and lower inflation had to be stimulated. The second consequence was that the real exchange rate of these countries must remain fixed at 1, due to the current exchange rate. Greece's deficit was 14.6%, Spain's deficit was 1%, in contrast to Germany, which managed to reduce material costs.

The euro area deficit was due mainly to the fact that the countries of the south of the continent are poorer than the north - eastern Europe, which have made rapid progress in raising living standards. Ballasa - Samuelson theory suggests that only by increasing labor productivity the gaps between the member states of the European Union may decrease.

A key element is to minimize disruptions through economies similar in structure, especially the types of goods produced. Eurozone members don't have a similar products' structure, as the sheer volume of foreign trade in Europe highlights. There are still large differences between the member states, the countries of northern Europe with more capital and better quality goods than in southern continent and the goods of the north have a sales volume superior to the other. It can not be determined yet if a single European market contributes to reducing disparities between countries in this regard or will lead to a regional specialization.

An important aspect is fiscal federalism. The euro area must be evaluated and based on the ability to transfer economic resources from members with healthy economy to those who suffer in terms of economic indicators. In the United States, countries with a lower economic level receive aid from Washington to increase federal return and transfer of monetary resources, with the resources fees paid by other states. This fiscal federalism can ensure economic stability through fixed exchange rates. The European Union the limited power of fees does not allow a fiscal federalism more than to a small extent.

4.Optimum currency area

Optimal currency area (O.C.A.), according to the balance, can be appreciated that shows a small increase compared to previous economic development of the European Union. However, the financial markets mentioned above have become more integrated as a result of the euro in the EU trade. While the capital movements have increased, labor movements are not significant and by their migration malfunction may occur. Because the revenues from labor constitutes about 2/3 of the European Union P.I.B and the effects of unemployment are severe, the lack of labor mobility can produce negative effects for the member states.

Monetary union due to conflicting economic performance suggests that euro zone countries may be subject to asymmetric shocks. Combining rapid movement of the capital with the slow movement of labor, can generate higher production costs and causes shocks without changing exchange rates. A notable example of this is the Netherlands, given that only a small number of skilled workers migrate. Considering that labor is almost immobile in Europe, the success of EU liberalization of capital movements could worsen the economic stability, with negative consequences for the monetary union. A significant example is "the theory of the second best", involving liberalization of markets, "the capital market", which reduces the efficiency of the European Union if other market economies, "the labor market", continues to operate under normal parameters.

Mundell's article proposes a method for defining optimal monetary borders. Thus, two countries have an interest to join the coins if simply, earnings or benefits outweigh the costs. The loss of monetary instrument is considered more costly if the country supports many specific shocks and does not have alternative means of adjustment. Mundell focuses on the mobility of factors, mainly that of labor; They were subsequently added to the price and wage flexibility, the existence of a federal budget and capital mobility.

If we look only in terms of costs, the conclusion is that "money is a comfort that constrains to an optimal number of currencies".

Monetary unification eliminates transaction costs, representing an arbitrage between losses arising from the retirement of a stabilization instrument and the gains resulting from the decrease of the transaction costs. A greater degree of integration reduces losses since, based on specialization, increases the symmetry of shocks born by countries that make up the union and the trade between the participants will become more intense (Krugman, P., 1993).

5.The European monetary unification

Since the 70s, Mundell has incessantly ruled in favor of the unification of European monetary , to the point that today is rightly considered "the spiritual father of the euro".

However, the opponents of the single currency have prepared very critical arguments based on his article of 1961. The provisional refusal of the British government led by Gordon Brown, dated 9 June 2003 examination was based on five criteria, mostly inspired by the theory of optimum currency areas.

The five criteria put forward by the British government refer to:

- the convergence of the British economy - the economic cycle should be close to that of the euro area;
- the flexibility of factors;
- the impact on the investments in the United Kingdom;
- the impact on the growth and employment levels of the workforce;
- the impact on the City financial center.

The first three criteria are directly inspired by the theory of optimum currency areas.

Instead, as we have shown, the five Maastricht criteria used by the Union to accept new members, make no reference to this theory. They refer to public finances (deficit and debt), inflation rates, interest rates and long-term participation in S.M.E.-bis without realignment, for at least two years. The provisional refusal arguments put forward by Prime Ministers Tony Blair and Gordon Brown do not refer to any of these criteria.

Studies on the application of the O.C.A. theory proved to be more compelling from the point of view of cost, than from the point of view of advantages. Analyses carried out in the academia (Bayoumi, Eichengreen, Blanchard et al) conclude that the loss of monetary instrument could be costly for Europeans, except around the core countries around Germany, which present the same degree of symmetry shocks as of the Americas region. Other studies emphasize the role of reduced mobility of labor in Europe in response to asymmetric shocks, unlike the considerable role held by the labor mobility in the United States (Blanchard, Katz, Einchengreen, Obstfeld et al). Later on other devoted supporters joined: Romano Prodi, Tommaso Padoa - Schioppa, Mario Draghi, etc.

Concerning the impact on trade, the first studies were little convincing. Since 2000, Andrew Rose has published estimates showing that the euro could increase three times the volume of the intra-zone trade.

Applying the O.C.A. theory proved to be more convincing in terms of costs than in terms of advantages, since it is difficult to quantify the benefits, usually of microeconomic nature, which are generally diffused; instead, the costs can be detected using macro econometric techniques. This situation continues to represent a handicap for euro supporters who at 50 years of Mundell's article, not yet been able to estimate the benefits more accurately. However, Ronald Mc Kinon (2000), talking about the "paradox of Mundell" and his pro - euro belief and his article in 1961, which served the full interests of anti-euro side, remembers that Mundell published two lesser-known articles in the '70s.These two articles focus on two major advantages of the single currency.

The impact of asymmetric shocks is mitigated by diversifying their portfolios, diversification facilitated on the integrated financial market and the single currency will end speculative attacks, which prevent the application of medium- and long-term policies. The argument "speculation" plays an important role in Mundell's conviction in favor of the euro. In his dialogue with Friedman, Mundell states that "as soon as the area coins were handcuffed by the euro, even before the release notes and metal parts, speculative capital movements belong to the past now.Thus, the uncertainties on the exchange rate and destabilizing movements have been put to an end".

6.The incompatibility triangle

The literature option on the trade regime has been treated separately from speculative attacks

(Crispedia.ro.). Since the 90s economists have noted the incompatibility of fixed exchange regime, perfect mobility of capital and the independence of monetary policy, the so-called triangle of incompatibility, which was highlighted by Mundell since 1968.

Tommaso Padoa - Schioppa continued Robert Mundell's research regarding the "triangle of incompatibility" theorem in the chapter “The harmonization and convergence required to the economic policies in Financial Europe”. The author shows that the triangle means the freedom of movement of capital, the exchange rate stability and the autonomy of national monetary policies. Triangle incompatibility stems from the fact that they can be combined in their entirety, but only two. Thus, the freedom of the movement of capital requires giving up the national monetary policy autonomy , when it envisages stabilizing the exchange rate. The ideal situation were if the three elements that make up the triangle of incompatibility would combine, but it is impossible, given the previous facts presented by Tommaso Padoa - Schioppa.

The incompatibility of those three elements has been the subject of other notorious economists' study (Eiteman D., Stonehill A., Moffett M., 2011, p. 69-70).

According to the authors, the exchange rate stability is assessed based on the exchange rates of other currencies of reference. Investors should be reassured of the exchange rate stability both now and in the near future.

As regards the freedom of the movement of capital, it consists in accepting free monetary float, so that investors can exchange currencies depending on their interests under the terms agreed by them.

The autonomy of monetary policy is the freedom of states to choose appropriate monetary policy and take appropriate measures when recessions.

This triangle is incompatible because states must give up one of the objectives described: monetary independence, exchange rate stability and freedom of movement of capital because the three objectives can not be met simultaneously.

A country with autonomy of monetary policy can have freedom of movement of capital to foreign capital markets, but can not have a stable exchange rate, as the United States of America. As regarding Malaysia, the exchange rate is stable,the monetary policy is autonomous, but the freedom of the movement of capital is not possible.

Specialists appreciate the decisive role of capital mobility, and the consequence is the option of many countries for freedom of movement of capital.

States must study world economic developments and establish the goal that they would give up by choosing the optimal strategy according to economic conditions.

In recent years, the increases and disorders of the capital markets have led many states to investigate the freedom of movement of capital, given the fact that the mobility of capital is decisive in relation to the autonomy of monetary policy.

USA opted for pure floating, while the European Union has chosen monetary union.

After 2000, the publications which have referred to the choice of exchange regime took into account the costs of courses instability, if pure floating regime. Since the 60s when experience was limited pushups and monetary unification projects were at the beginning, works of Mundell have allowed an optimum and viable monetary system, structured on a small number of floating currencies, each covering a relatively large area in which labor and capital are mobile. Creation of the euro was the initial step in this direction.

Currently no one can say with certainty whether geographical areas such as South-East Asia, South America and North America will know one day the same process of monetary unification, because for the international monetary system time is measured more in decades than over the years.

Conclusion

Given that the three objectives of the "triangle of incompatibility" can not be fulfilled simultaneously, governments of the countries of the world must take into account the economic and social conditions of those countries, so as to establish the most appropriate economic strategy, taking into account that objectives covered in this study can not be compatible than two.

In this context, Romania, as an EU member, has its economic strategy based on consistency between the exchange rate stability and the monetary policy autonomy. It must be underlined that according to the changing conjuncture of capital markets, governments of the members adapt business strategy to the new circumstances, given the complexity of international trade that the world's countries are involved into and the legislation governing trade relations, taking into account the continuous changing conditions in which they operate.

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