

The Euro's next day scenarios. Break up or an OCA scheme?

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Abstract

It is now generally accepted on the aftermath of the global credit crunch that the Euro countries debt crisis which has been spread in three countries (Greece, Ireland and Portugal respectively) shows that the EMU is far from being an Optimal Currency Area (OCA) under its current form. The barriers have to do with limitations and restrictions on the single market, the lack of political union and different monetary policy targets. Incentives to secede are also present. But a possible withdraw of a country would have high cost for all the participants and it will lead to monetary union's demolition. The costs related with a possible withdraw are high, thus it's difficult for a country to leave a union. In the recent debt crisis the countries accepted bailouts from their counterparts and international organizations in order to prevent the Eurozone collapse spreading the crisis further.

Three possible scenarios are analyzed. The volunteer breakup of the union and reintroducing of national currencies, the breakup of the Eurozone to multiple currencies consisting OCAs and the imposition of an interest equalization tax in order to make the Eurozone a single OCA.

Keywords: OCA, monetary policy, Interest equalization tax

JEL codes: E 42, E 52, F41,

1. Introduction

The current debt crisis in the Eurozone has made clear that the current form of EMU is far from being an OCA. Possible national market problems transferred through financial contagion to other countries as asymmetric shocks. The economic development is also asymmetric. Countries which share the same currency have different economic, social, political and legal framework, but they have to share the same monetary policy. The countries had also the obligation to bailout their weaker counterparts acting as lenders of last resort for them in order to maintain the union increasing their exposure to the initial infection. The loss of economic independence, the asymmetric shocks through contagion and the bailout obligation are the major disadvantages of EMU participation.

This scheme cannot last for long. There is no withdraw process and if a country capable of forming an independent monetary policy abandon the union or bankrupt the other countries will (or they should) lead union to dissolution because the costs related to the maintenance of a broken monetary scheme are high. The dissolution (1st scenario) is presented along with a set of two sustainable scenarios. After analyzing the characteristics of a possible OCA, I am presenting a set of 11 variables to make quantification on each country's characteristics. I present the voluntarily breakup of the union in two new free floating currencies consisting of countries having common characteristics (2nd scenario) and a third scenario involving the impose of an interest equation tax which could solve the high interest spreads problem and along with reforms it could make the Eurozone an OCA.

The paper is structured as following: The next part is presenting the disadvantages of European monetary union. The third part provides the dissolution scenario. OCA requisitions, the relative data set and scenarios on the forth part. On the final section I conclude based on data results criticizing the three scenarios and I propose incentives on possible further research.

2. Disadvantages of the EMU scheme

When the common European currency introduced back in 1999, the monetary union plausible advantages were overestimated while potential disadvantages were put aside. Since 1999 progress has been made. Intra-trade within EU has been stimulated because of the non-tariff and single market policy. Factor mobility has also been increased despite the limitations put by older members to their newer counterparts (countries accessed after 2003). The price transparency is another advantage linked to the common currency creating benefits for business and consumers. Transaction costs which can appear in different ways (commissions and buying and selling prices spreads) eliminated within the zone.

Despite its obvious advantages Eurozone is debated for its disadvantages. Some of them have been known and expected since its foundation. Despite early literature¹ which emphasized on temporary negative effect of transaction costs this problem seems to be less important than the others. The most interesting fact has to do with disadvantages which weren't expected on their current extension. The problems are so severe nowadays leaving the existence of Eurozone under question.

The major expected disadvantage is the loss of monetary autonomy and national macroeconomic policy autonomy. The introduction of a common central bank which handles the interest rate of Euro along with the single currency without capital controls. Countries cannot determine their own monetary policy and inflation rate. The trade-off between unemployment and inflation is unable. The countries have to put their inflation in to the line with the lower inflation rate. Regional disparities are also present. Some union countries gain while others lose. Regional policies have fallen out of favor because of the political manipulation, economic adjustments delay and insufficient industries funding. Finally the exchange policy instrument was also lost, this loss wouldn't matter if they had only fiscal policy but the problem of external balance is also present. Whether the zone could have a balanced external trade, they experienced countries having surpluses and others having deficits.

The debt crisis showed the disadvantages of the monetary union which they weren't projected. Asymmetric shocks which had to be avoided for the counties of the monetary union were present because some countries were infected in the first stage of crisis (PIG debt problem) and within the union the problem amplified by contagion exposing initially not infected countries to credit risk transforming crisis to symmetric within the zone. Another unpredicted disadvantage has to do with the role of internal "lender of last resort" which countries were called to play recently. Countries having better economic results are forced from their political decision of bailing out weaker economies exposing themselves to other countries credit risk doubting whether they would receive their loans on the maturity dates or not. The lack of central policy or in other words political union among the European countries was a problem recognized even before the EMU creation. The Europeans hoped that the monetary union would lead to an extended political bonds creation. But, individual economic policies acts were actions against the mutual monetary policy. The Eurogroup where the political decisions related to Euro are unofficially but substantially taken, lost its confidence among the European citizens of being capable to plan and imply strong monetary policy. A future risk has to do with their exposure to weaker countries default. If a country within the zone cannot meet its repayments its lenders and reintroducing a national currency they will lose their funds and they will be forced to introduce immediately national currencies to avoid part of the dissolution later costs.

As shown the disadvantages from the current scheme are many and difficult to solve. With its current form EMU cannot last for long. In the next part we are about to see the dissolution scenario where a country is selecting to introduce a national currency in order to gain from a possible autonomous monetary policy, the effect of its decision to the other monetary union countries and the effects on their monetary policy change.

3. Dissolution scenario

A monetary union has never been made to be broken. But under unlucky political or economic circumstances none of the modern monetary unions has remained untouched and only microstates bonded to larger neighbor's currency monetary union and the CFA zone are still in operation for more than 50 years. The reason behind the long term existence has to do with the high cost of independent monetary policy. If a country cannot afford it could leave its monetary policy guided by the larger country or the union common central bank.

It would order to find the reasons of breakup excluding the cases of previous political disintegration (Former USSR, Yugoslavia and Czechoslovakia respectively), bonding or dollarization (many cases in Central and South America). We can conclude that this dissolution scenario refers to the voluntary participation unions such as Eurozone. With exception of high political risk incentives to secede are developed because of inefficiencies due to integration.

A country in order to leave the EMU will face a large depreciation of its currency followed by exports decline, transition costs and political and economic risk rise. But it will leave if its cost of national currency reintroduction is lower than the maintained cost of being a part of a monetary union in the long term. Leaving a monetary zone cannot be a single side decision and unions don't have a smooth and volunteer leaving process by their creation, only temporary solutions can be proposed. We exclude the parallel circulation of both national and common currency which cannot last for long due to Gresham's law. On the other hand we propose three plausible scenarios: the voluntarily withdraw of a country from the union, the dissolution and the reintroducing of national currencies. The remaining countries to the zone will also have strong incentives to leave the zone immediately because there is a possibility to avoid the majority of the high broken zone maintenance cost and gain from the strong motive of autonomous monetary policy profits.

The point where a monetary union dissolutes is also an important issue. When a country leaves a scheme if its size can work as a monetary policy individual the scheme breaks down. Comparisons cannot be made between EMU and Latin Monetary Union. LMU can be considered more as a fixed rates club. There wasn't common currency and one central bank. Monetary discipline was also absent. Thus there was no single currency or central bank for a long time to abandon and the members' commitment was loose the consequences from the national currencies mint didn't have negative effects on members economies.

The possible devaluation long-term positive effects in competitiveness are the major motive that the breaking country has to leave the monetary union. The reintroducing national currency costs are high and a possible decision has to be taken by monetary authorities is analyzed in various categories of cost acting as barriers for a possible exit.

An initial effect of the reintroducing announcement is the rise of risk and interest rates on countries' debt, not only for the abandoning country but for the whole zone. This is a penalty for the leaving country, but also for the others that let the union broke. Credit ratings will lower increasing the pressure on the now independent central bank to raise interest rates and further devaluation.

Internal economic problems also occur. To regain its competitiveness a country should reduce, according to Blanchard (2006) referring to the case of Portugal, a 25% wage reduction. Further reduction to the wages will follow possible trade flows from abroad. Because of its inconvenience, due to unfair manipulating monetary issues failing to maintain the previous commitment of monetary union will imply a tariff to their exports to the breaking country. In order to maintain its competitiveness country must transfer this tariff to its workers as a wage reduction. This compensatory tariff can be also followed by unfair monetary exchange rate policy to attract FDI or restrictions to their citizen's freedom.

Political disintegration is another major consequence of the economic and monetary independence. An abandoning country, something that is no provision in the European Union, obviously didn't estimate the profits from the political integration. The other members won't easy participate to discussions for common foreign policy and a European Army creation. Through this process weaker countries are excluded from the European Union decisions and

in a later stage from the Union itself. This would have also a major effect on their international trade position against these countries and the European Union because all participants will lose EU membership and its benefits. This will lead to higher country risk and interest cost.

Reintroducing new currency also involves technical and legal obstacles. Some of those are associated with the initial competitiveness depreciation itself. In order to be effective the currency introduction should be followed by debt and savings redenomination inside the country otherwise it will lead to financial distress and bankruptcies. All money working equipment (ATMs, Payment machines, airport handlers etc.) must be reprogrammed; notes and coins have to be minted and placed all over the country. A short period of double circulation is also important for the smoothest possible transition, raising further costs.

In any case more measures will be needed to keep people from massive withdrawals, and bank runs to foreign banks. A “corralito” limit to bank withdrawals can be an immediate remedy but it cannot be a long term measure. The bond issues cannot be easily accepted by international markets having a junk rating status and interest rates will rise further. Redenomination of the foreign debt is also plausible out of favor of the positioned investors who will have great loss of the country’s inconvenience. If they sue the country in the European court of justice they will receive remedy because the court won’t be in favor against breaking country.

The other members will have to pay the increased cost occurred by the country’s retirement. Unless their action is coordinated and rapid they will have to pay a short term cost which is 50% devaluation and further devaluation in the long term, the possible share of the leaving country to the ECB, the possible bailouts given will be under question and the loss from the possible independent monetary policy. If the remaining countries coordinate their action of introducing national currencies they will keep their political sustainability keeping their competitiveness and wages level and they won’t have to bail out their joint central bank. Markets will be probably positive in a possible common action looking to the future of the countries. People are also favorable to their national currencies and the political decision may be easier. The sunk cost which cannot be avoided in any case consists of the credit risk lowering costs compared to the zone maintenance and the loss of debt repayments plus technical cost.

In any case this scenario seems to have large cost for all the countries but the cost for the leaving country will be unbearable. In real life a country won’t easily let voluntarily the union to dissolve and the others will decide to abandon the union when the exposure to possible delayed or lost debt repayments will be already high.

4. OCA scenarios

Making Eurozone an OCA in the long term has been the ultimate goal since its foundation. Tootel (1990) thinks that a set of more than one OCAs (suggests 5-6) could be more operative and effective. A more realistic target is the implement of a common interest system allowing countries to participate in the financial markets equally with the implementation of an interest equalization tax within the zone as a presumption of the short term effective monetary policy along with specific and customized in each country’s needs to eliminate regional disparities transforming zone to an OCA. These scenarios of multiple OCAs and interest equalization tax implementation are analyzed in the present sector.

Monga (1997) listed 19 relevant criteria for a successful currency union in Francophone Africa. The level of freedom in certain sectors of the economy is crucial for creating or maintaining monetary unions. More freedom means larger flexibility for the referring country making it keen to accept needed transformations to be a part of an OCA. The OCA countries levels have to be equal. I made transformations to the original variables in order to transform them to meet my current research criteria. I have deployed the latest (2011) dataset from Heritage foundation for economic freedom scores (Business, Trade, Fiscal, Government spending, monetary, investment, fiscal, property rights, Freedom from

corruption and labor freedom)², political risk from Euromoney country and political risk rate and credit rating from international agencies respectively consisting an 11 variables dataset. In Monga (1997) the measure is ordinal and based on estimates. Integer values range from -2 (heavy disadvantage or incentive) to +2 (strong advantage) using zero (0) if the effect is neutral. The variables have the same weight and added to make a final index.

In contrast to the Monga (1997) I used quantitative data provided by referred sources using as population the specific scores for each series calculating its average and standard deviation. We use these descriptive measures to give each country a score for each variable. If the value is smaller than one standard deviation from the mean I note it as a heavy disadvantage (-2), from one standard deviation to mean (not included) is a minus one (-1), from mean to one standard deviation (not included) variable is a plus one (+1) and finally if the value is more than one standard deviation it takes a plus two (+2). I omitted zero because the countries are already in a union and none of this effects can be taken as neutral for them. The weights are still equal. Countries with positive final index can be counted as possible candidates for an OCA scheme and negative final index means that the country has to make possible transformations in order to improve its score or its candidate to format another OCA with other low final index countries. The results are shown on the following table.

Table 1: OCA indexes for all countries union.

² Variables methodology and analysis can be found on Heritage foundation index of economic freedom (2011) Appendix.

Trade freedom	Fiscal Freedom	Gov't Spending	Monetary Freedom	Investment Freedom	Financial Freedom	Property Rights	Freedom from Corruption	Labor Freedom	Gov't Expenditure % of GDP	F
1	-2	1	1	1	1	2	1	2	-1	
1	-2	2	1	1	1	1	1	2	-2	
-2	2	-1	2	-1	1	1	-1	2	1	
1	2	-2	-2	2	2	1	-1	1	2	
1	1	2	-1	1	2	2	2	-2	-2	
-2	-1	2	1	-2	1	1	1	-1	-2	
1	-1	1	1	1	-1	2	1	-2	1	
-2	1	2	-1	-2	-1	-2	-2	-1	-1	
1	1	-1	-1	2	1	2	1	2	1	
1	-1	1	1	-1	-1	-2	-2	-1	-1	
1	1	-2	1	2	2	2	1	-1	2	
1	-1	1	1	-1	-1	-2	-2	-1	-1	
1	1	-1	-2	1	2	-1	-1	1	-1	
1	-1	1	-2	-1	-1	-1	-1	1	-1	
1	-2	1	1	2	-1	2	1	1	1	
1	-1	-1	-2	-1	2	-1	-1	1	-1	
1	-2	1	1	2	2	1	2	1	1	

The results show that 10 countries (Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Ireland, Luxemburg and Netherlands) have positive final index showing that their scores are close and are primary candidates for an OCA. The other 7 countries have negative score (Greece, Italy, Malta, Portugal, Slovak Republic, Slovenia and Spain) which means that they cannot be members of an OCA with their current scores and have to make transformations to join a common area. In a possible multiple currency areas scenario these two groups seem to consist the initial group of the two new Euros. A “hard” one based on positive score countries and a “soft” one based on negative score countries. Possible advantages of this scheme are obvious. The control of the monetary policy is more flexible for a participating country than the larger union. Political cost seems to be lower than the dissolution’s scenario. The regional asymmetries are expected to be smaller because countries scores and characteristics are closer. The markets will be easier to accept this division and transition costs will be lower.

The creation of multiple currency areas has some fundamental presumptions. Initially the countries consisting a new monetary zone must accept that the two currencies will free float between them. Otherwise the scheme substantially doesn’t change and its problems remain. Additionally there is no OCA if the participating countries don’t share the same borders because the trade volume isn’t so high among the zone countries.

In current scenario Cyprus and Slovak republic don't border with the other participants and they have to be excluded facing the cost of an abandoning country facing a major disadvantage for the scenario The results of the 9 countries "Hard Euro" and 6 countries "Soft Euro" are shown below:

Table 2: "Hard" Euro scenario

	Business Freedom	Trade Freedom	Fiscal Freedom	Gov't Spending	Monetary Freedom	Investment Freedom	Financial Freedom	Property Rights	Freedom from Corruption	Labor Freedom	Gov't Expenditure % of GDP	pol. Risk	credit rating	Final Index
Austria	-2	1	-1	-1	1	-1	-1	1	1	2	-1	1	1	1
Belgium	1	1	-2	-1	1	-1	-1	-2	-1	1	-1	-1	-1	-7
Estonia	-1	1	2	2	-2	1	1	-2	-2	-1	2	-2	-2	-3
Finland	2	1	1	-1	-1	1	1	1	2	-2	-1	1	1	6
France	1	-2	-1	-2	2	-2	-1	-1	-2	-1	-2	-1	1	-11
Germany	1	1	-1	1	2	1	-2	1	1	-2	1	1	1	6
Ireland	1	1	1	1	-1	1	-2	1	1	2	1	-2	-2	3
Luxembourg	-2	1	1	2	-1	1	1	1	1	-1	2	2	1	9
Netherlands	-1	1	-1	-1	1	1	1	1	2	1	-1	1	1	6

Table 3: "Soft" Euro scenario

Country	Business Freedom	Trade Freedom	Fiscal Freedom	Gov't Spending	Monetary Freedom	Investment Freedom	Financial Freedom	Property Rights	Labor Freedom	pol. Risk	credit rating	Final Index
Greece	-1	-2	2	-1	-1	-2	-1	-2	1	-2	-2	-10
Italy	-1	1	-2	-2	1	1	-1	-2	-1	-1	-1	-7
Malta	-2	1	1	1	-2	1	-1	1	2	1	1	6
Portugal	1	1	-1	-1	2	-1	-1	1	-2	-1	1	-2
Slovenia	2	1	1	1	-1	-1	-2	-1	-1	2	1	0
Spain	-1	1	-1	2	2	2	2	1	1	1	2	13

As we can see the asymmetries were smoothened but they didn't eliminate. In the "Hard Euro" France, Belgium and Estonia and in the "Soft Euro" Greece, Italy and Portugal seem to be weak. The problems didn't solve and in fact the dissolution is still extremely plausible and the total cost of this scenario is larger compared to national currencies introduction.

Nowadays there is a debate for the issue of a possible Eurobond as a solution for the current debt crisis. The fact is that Eurozone markets become less liquid because of the "flight to safety" syndrome or they reflect a default risk. There are many disadvantages making this solution impossible. The main issue has to do with the free riding problem caused by high spread countries being less motivated to imply sustainable fiscal policies. The participation to a joint bond evolves major moral hazard is pressuring from the implicit insurance from this issue. Countries with triple A's rating will lose their borrowing advantage and they have to fund their debt with higher interest. There is also a set of practical problems. The share of collective responsibilities has to be done, but under what scheme of weights. If

the weight in the yield is different from the weight on the Euro main liquidity problems arise and the proposed fund will have to cover these asymmetries.

De Grauwe and Moesen (2009) and De Grauwe (2011) recognize these problems and they suggest major changes on the joint plan. First they propose that share on bond should be connected to the country's equity shares on joint for 60 per cent of its GDP (blue bonds) and from the markets and the rest from national bond markets (red bonds) in higher prices. This plan can be easily recognized by speculators and the issue amount is limited exposed to a coordinated attack. They also suggest different fees for the countries' blue bonds. The same problem will rise instantly and the asymmetries will be amplified when the attack will be specialized to the weaker countries. Finally they propose that each government will pay the interest on its part of the bond on yearly basis. But what will happen if one or more countries cannot pay their shares? They will probably ask for further lending within the Eurozone.

The coordination of monetary policy can be achieved using an interest equalization tax stabilizer (IETS). Benavie and Froyen (1992) name the monetary policy along with an interest equalization tax can be more effective than monetary policy alone. Ineffectiveness within EMU can be smoothened within the union. Each country participating in the monetary union pays the part of the interest which exceeds the lowest rate within the union weighted to its participation to Euro. The payment is done on the maturity and it will be repaid in the very long term period (25 years or more). This measure is temporary and it can be implied until the current debt crisis is resolved and the necessary reforms to the weaker countries are made in order to reach the target of an OCA.

The countries are funded through the market and not through stability facilities such as proposed EFSF. Lending cost is reduced for the weaker countries compared to the "lender of last resort" solution. The stronger countries won't lose their credit rating and they won't increase their lending rates. The zone will sustain in the short term as long as the mechanism works and the fundamentals for a tighter union are present. This scenario is the easiest and fastest on its implication. A major disadvantage has to do with the will of the stronger countries to fund this mechanism and for how long. But if they consider it as zone sustainability, sunk cost is preferable to the opportunity cost of a possible dissolution. The other disadvantage has to do with the time of implication which has to be short and strictly connected to the market liberation transitions- balanced fiscal policy path. The political decision of funding this possible solution has to do with the existence of the European Union itself.

5. Conclusions

The present work has presented three possible scenarios related to transformations for the EMU future. Present debt crisis is testing the durability and long prosperity of the union. Being on the decision dead-end under this pressure as a motive for reform and crucial decisions having to do with the possible maintenance of the monetary union. The dissolution or breakup cost seems to be extremely high for all the participating countries and the problems doesn't seem to be solved by a breakup into multiple OCAs which is the worst cost case scenario hiding a possible future dissolution of the smaller unions cost.

The first decision that it has to be made is an opportunity cost choice. Countries want to pay the cost of possible dissolution or EU and EMU maintenance? On my analysis the second solution seems easier and preferable. Political decisions related to liberation reforms and transformations and the change of the economic environment seem to be critical for the long term sustainability but the time for the implication of a tighter union under the present turbulence seems to be inadequate. An interest equalization tax despite its cost seems to extend the life expectancy of the union. Any Eurobond solution seems vulnerable and easy detectable by speculators.

In a future work the time of EMU transforming to OCA or in other words the short term IETS maintenance time and proposed cost can be calculated. This is a sort introduction to possible future solutions for the future of the Eurozone. Opening the present discussion can be a step further for more efficient economic and political decision making.

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