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The Euro Area sovereign debt crisis: Some implications of its systemic dimension

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Abstract

After the beginning of the euro area, countries in its periphery engaged in weighty borrowing from foreign private investors, allowing domestic spending to outpace incomes. Now, these countries face debt crises reflecting a loss of creditor confidence in the sustainability of their finances from which results an abrupt end in private foreign lending to these economies. The debt crisis made evident the asymmetry between core and periphery countries, which is visible in trends in saving, consumption and investment. These divergent patterns have contributed to view the debt crisis as a problem of the PIIGS (Portugal, Ireland, Italy, Greece, Spain) that can be contained in the periphery, or as a new version of the fable of the Grasshopper and the Ant. We dispute this reductionism showing that the debt crisis is systemic and its solution cannot be found with more fiscal rules and austerity in peripheral countries alone. It will imply, if not an increase in fiscal and political integration, at least a higher coordination at the political and economic front and a new governance structure.

Keywords: Debt crisis, Euro zone, EFSF, ESM, Fiscal rules, PIIGS, Systemic crisis, Solvency.

Jel Codes: E44, E62, F15, F34, F36, F55, G01

The Euro Area sovereign debt crisis: Some implications of its systemic dimension

1. Introduction

The sovereign debt crisis was made evident in early 2010 when yields on Greek government debt spiked in conjunction with growing market doubts about the sustainability of the country's finances. Borrowing rates soon became prohibitively high for other fiscally troubled countries in the euro area periphery, such as Ireland and Portugal. All three countries have been forced to seek financial support from the IMF (International Monetary Fund) and the EU (European Union) to compensate for the lost support from private creditors.

The debt crisis called attention to the asymmetry between core and periphery countries that is visible through several trends. The divergence in saving, which is also mirrored in consumption trends, shows that euro area periphery households responded to lower interest rates by borrowing and spending. In fact, Irish real consumption expenditure increased approximately 55 percent from 1999 to 2007, and in Greece and Spain, the comparable figure was roughly 35 percent (Higgins and Klitgaard, 2011). On the other hand, Germany appears as the most frugal: consumption share remained essentially stagnant after 2001, leaving the country with ample funds to lend abroad. These divergent consumption-spending trends were a key driver of euro area imbalances.

The evolution on the investment side complements the picture. Investment spending as a share of GDP declined slightly in Greece leading up to the crisis, while the investment share in Portugal was flat (Higgins and Klitgaard, 2011). Quite the opposite, the corresponding share had a clear rise in Spain and Ireland. But higher investment shares in these countries are explained by booms in residential buildings rather than by spending on business plants and equipment.

In sum, heavy foreign borrowing reflected low saving rates in Greece and Portugal, while in Spain and Ireland it was used to fuel a housing boom. But the outcome for all four countries was the same: they accumulated foreign debt and, contrarily to core countries, they did not use these funds to build up the higher productive capacity that would enable them to reduce or at least do not increase the debt

burden, which imply to pay the debt service costs. These divergent patterns in consumption and investment contributed to view the debt crisis as a problem of the PIIGS (Portugal, Ireland, Italy, Greece, Spain) that can be contained in the periphery or as a new version of the fable of the Grasshopper and the Ant¹. This reductionism is disputed in this paper. The debt crisis must be tackled as a systemic crisis, which implies to use a systemic solution; otherwise soon or later it will affect all the EMU (Economic and Monetary Union).

Adjustment efforts in countries affected by the sovereign debt crisis have mostly focused on sudden and fast reductions in fiscal deficits. But the more fundamental adjustment will require sharply reduced foreign borrowing, with spending reducing in line with national income². This has clear implications at the competitiveness level. Before joining the monetary union, the periphery countries could have relied on a weaker currency to boost exports and support growth while undertaking this difficult adjustment. With the exchange rate no longer available as an adjustment mechanism, the challenge now is how best to lower domestic spending while sustaining economic growth.

What are the prospects for the countries affected by the debt crisis? And for the EMU as a whole? Answer to these questions is not an easy task, given the multitude of agents and variables involved. However, we'll try to shed some light on the matter. This paper analyses some failures in the fiscal governance of EMU, reviews the literature on fiscal discipline and points to some solutions for problems that affect the euro zone. So, the remainder of this paper is organized as follows. After reflecting on the origins of the crisis in section 2, Section 3 discuss the need for fiscal discipline, starting with the incompleteness of the EMU as a monetary union and next focusing on the role played by fiscal rules. Section 4 discusses the systemic character of the debt crisis. Section 5 deals with some governance issues. Section 6 is centred on the need of economic growth both in periphery and in the Euro zone as a whole. Finally, section 7 concludes.

¹ The analogy is simple: governments of some countries (grasshoppers) have had bad behaviour: They have irresponsibly spent too much, and save too little, from which results unsustainable debt levels. They are now broke owing to their own mistakes. There is no reason to assist them. The assistance only gives them encouragement to persist in negligent behaviour. We should avoid that ants (taxpayers of core frugal countries) have to pay the bill.

² Giavazzi and Spaventa (2010) support the reinforce of financial regulation at the European Union level to act as a brake on the domestic credit booms often fuelled by heavy foreign borrowing.

2. The Euro Area Sovereign Debt Crisis

The countries most affected by the euro area sovereign debt crisis had engaged in substantial foreign borrowing for several years. The turn to foreign borrowing was facilitated by entry into the EMU. Before the late 1990s, countries in the euro area periphery faced much higher interest rates than did euro area core countries, such as Germany. However, once the periphery countries joined the monetary union, the interest rates they paid fell sharply as market participants considered that the value of investments in these countries would no longer be vulnerable to erosion through currency depreciation. As a consequence of low interest rates, heavy foreign borrowing by both the public and private sectors was spurred. In addition, the need to minimize the effects of the 2008 crisis, together with the action of some automatic stabilizers, have also contributed to increase the sovereign debt in those countries. But, the negative effects of the crisis were exacerbated by the fact that foreign capital was used to finance domestic consumption (Greece, Portugal) or housing booms (Ireland, Spain) rather than productivity enhancing investments.

The Sovereign Debt crisis began in early 2010 when the arriving Greek government announced that the fiscal budget deficit for 2009 was far larger than previously estimated. This large deficit restatement raised concerns about the sustainability of Greece's fiscal position, since Greece had also run large current account deficits for several years. As a consequence, markets responded by requiring much higher yields on Greek debt. A vicious circle was initiated and then fuelled with the increase in debt service costs further damaging the government's fiscal position (Higgins and Klitgaard, 2011). Concerns over fiscal sustainability soon set off a similar dynamic in Ireland, in Portugal, and, to a much lesser extent, in Spain and Italy. However now it is clear that contamination has already attained these latter countries.

In response to these market pressures, the periphery countries have been forced to commit to painful fiscal austerity measures. Greece has agreed to undertake the most severe consolidation efforts, summing to almost 25 percent of GDP over the 2010-14 period. Ireland has committed to implement consolidation measures that amount to 18 percent of GDP by 2014, and Portugal to measures totalling more than 12 percent of GDP. Spain, which has not had to seek external assistance, plans to implement measures totalling roughly 8.5 percent of GDP. These measures are projected to bring

fiscal deficits to below 3 percent of GDP by 2013 in Portugal and Spain and by 2015 in Greece and Ireland (Higgins and Klitgaard, 2011: 2).

There are important differences among the euro area periphery countries as to how fiscal vulnerabilities developed. Portugal, like Greece, was running a sizable fiscal deficit even before the 2008 recession. Ireland and Spain, in contrast, had strong fiscal positions before the downturn. However, both countries had massive real estate bubbles and credit-fuelled construction booms. The loss in tax revenues when the bubbles exploded and booms turned to busts was particularly dramatic. Moreover, governments in both countries (especially Ireland) face large actual and potential costs from supporting their sick banking sectors. For all the periphery countries affected by the debt crisis the critical question is how the austerity will effectively reduce the perceived risk for creditors and these countries can return to the markets for credit without prohibitively high rates of interest.

3. The need for fiscal discipline

3.1. Euro zone: an incomplete monetary union

Nowadays, the European Union has limited fiscal responsibilities. The public finances are above all a task of the national level, and the EU level basically covers regional funds, agricultural subsidies and administrative costs financed by contributions of member states. The introduction of the euro didn't change this type of fiscal governance although theoretically a single currency should imply a single fiscal structure. Without such structure the EU level fiscal policy involve multi-level public finance arrangements, with a lot of delays and inefficiencies. While the standard theory analyses the advantages and disadvantages of decentralization, the challenge for the EMU design is the other way around the establishment of bottom-up centralization, as sooner or later the euro Nations must come together to set up a supranational fiscal structure.

However, to implement such structure is not now, as it was not in past, an easy task. In past the consensus didn't existed, as it is visible by the discussions of decentralization and design made before euro be introduced as the EMU currency³. In fact, although most contributors to the debate about EU fiscal institutions disputed the

³ See, for instance, Persson *et al.* (1997) and Mueller (1997).

adopted design for EMU (e.g., Oates, 2001), there was not a consensual view among researchers about how fiscal structure should be. While some authors strongly defended the centralist⁴ model (Tabellini, 2003), others considered that the EU already has 'gone too far' in centralization (Alesina and Wacziarg, 1999). Now as well as in the past, the reason for the inexistence of a supranational fiscal structure is, above all, the aversion of national governments to lose sovereignty. Without such supranational structure the fiscal discipline of Member States plays a crucial role.

3.2. The role played by fiscal rules

The explanation for the occurrence of the debt crisis, which was firstly put forth by European political leaders, has been the fiscal indiscipline in peripheral countries. This alleged indiscipline, together with imprudent policies that were in place between 2000 and 2008, makes very probable that the process of repairing public finances will not be quickly solved and that its costs will last for several years⁵. In fact, many observers consider that the disrespect of fiscal rules has been the most responsible factor for the sovereign debt crisis. This viewpoint is also the one underling the metaphor of grasshoppers applied to the irresponsibility of governments of peripheral countries.

If the occurrence of the debt crisis in periphery countries is the result of the irresponsibility translated in fiscal indiscipline, the respect of existent fiscal rules and the introducing of new ones are critical steps towards the crisis solution and, so, it is opportune to answer some questions. Is there theory and sufficient empirical evidence about the role played by fiscal rules? If the answer is affirmative, what is the role played by fiscal rules in preventing debt crises? Are there sufficient fiscal rules to impede new crisis of emerging? Are the rules well designed to limit the damages of unforeseen debt crises? What are the institutional arrangements needed to induce earlier and more automatic rebalancing?

The matter of fiscal discipline is absent in fiscal theory. However, the empirical literature has addressed this issue discussing three features of the institutional architecture in federalist systems (e.g., Rodden *et al.*, 2003; Dafflon, 2002): fiscal disparities, excessive government and the concern for opportunistic behaviour of some

⁴ Berglof *et al.* (2003) present the broader political aspects of the centralist model.

⁵ Of course, one can always add the severity of the 2008 recession as another reason to the slowness of the recovery.

sets of countries. Earlier research was concentrated on the experience of the US states, sometimes in view of obtaining lessons for the EU, with most contributions focused on numerical fiscal rules. These are the cases of von Hagen (1991), Bayoumi and Eichengreen (1994), Alesina and Bayoumi (1996), Bohn and Inman (1996). Since middle 1990s the focus of the analysis was transferred to Europe (e.g., von Hagen and Eichengreen, 1996).

The bulk of empirical research about institutions and fiscal discipline is concentrated around the effects on risk and costs of debt. Some authors have shown that better institutions are connected with lower risk premia (Hallerberg and Wolff, 2008) and so, the need of fiscal rules is usually emphasized as a mechanism of preventing the consequences of the increase in risk. Specifically for the euro area, Hallerberg and Wolff (2008) reveal that institutional characteristics of the fiscal process determine government bond yields and that controlling for institutional quality allows differentiating the impact of EMU on the pricing of sovereign bonds.

Other institutional characteristics of fiscal governance were empirically investigated in association with fiscal rules. For instance, independent fiscal institutions have been found to contribute to the emergence of fiscal rules or their effective enforcement (Debrun, 2007). Other features as the quality of medium-term budgetary planning frameworks, and the inflexibility of numerical fiscal rules and degree of budgetary transparency have been recently researched. In this respect, Beetsma *et al.* (2011) analyse the credibility of the whole budget process from planning to implementation and ex-post control and they conclude that all of the above features help to reduce over-optimism inherent to previous macroeconomic data that are used for budgetary preparation and fiscal supervision.

The effect of fiscal rules on the cost of borrowing has also been investigated by Eichengreen and Bayoumi (1994), which confirm the negative impact of fiscal rules on the cost of government borrowing. On the other hand, Poterba and Rueben (1999) find out that expenditure, deficit, and debt rules (negatively) as well as tax limitations (positively) impact on state bond yield differentials, but the debt rules appear to be the least effective. Differentiating this result, Johnson and Kriz (2005) show that revenue limits have a direct impact on state borrowing, while the effect of numerical fiscal rules is indirect via improved credit ratings. However, the effectiveness of national fiscal

rules with respect to fiscal performance is not assured. It has been shown to depend on the mechanisms established to enforce conformity with the rule (Inman, 1996; Ayuso-i-Casals *et al.*, 2009) and on the type of the rule. In this respect, expenditure rules appear to be less effective than budget balance and debt rules (Debrun *et al.*, 2008).

Although the role of fiscal rules in the budgetary process has been examined, empirical evidence is not fully conclusive in what respects to know if fiscal rules serve as a commitment strategy to successfully induce the governments not to pursue short-term and pro-cyclical budgetary policies (Debrun and Kumar, 2007; Debrun *et al.*, 2008), or whether they merely have a signalling function on eliminating the information asymmetries between government and the electorate, without changing the behaviour of governments (Debrun, 2007).

Also respecting to fiscal rules, various observers, following some European leaders, have asked for the introduction of national rules in country's Constitution. Even though empirical research has studied the effects of constitutional rules, the bulk of literature is about the impact of fiscal restraints on the cost of public borrowing, both at US states and for the euro area. In particular at US states, Bayoumi *et al.* (1995) show that the impact of constitutional controls on the cost of debt depends on the level of debt: at average levels, the presence of such controls is found to be associated with a reduction of the interest cost by 50 basis points. Although the cost of borrowing can be an indicator of the near crisis, information about costs is practically irrelevant in preventing excessive debt and its crises, as the recent facts occurred in the US have clearly shown. On the contrary, constitutional rules can increase the creative accounting practices.

So, in our view it is more fruitful focusing on the way preventive and corrective arms of the SGP (Stability and Growth Pact) of the EU are designed and implemented. The preventive and corrective arms of the SGP were expected to ensure that countries maintained an underlying fiscal position in terms of their MTO (medium-term budgetary objectives) close to balance or surplus, thereby ensuring that the absolute deficit did not exceed 3% of GDP in recession and the debt was brought rapidly below 60%⁶. The objectives were expected to include a likely 'pre-financing' of future age-

⁶ The SGP sets out the implementation requirements for looking at both the overall medium-term orientation of fiscal policy in its preventive arm and the way in which excesses over the Treaty values are treated as part of the EDP in its corrective arm.

related expenditure. However in practice, even in pre-crisis years few countries were at their MTO. Besides, although Commission always placed countries under the EDP (Excessive Deficit Procedure) when their deficits exceeded 3% of GDP, the debt criterion was never explicitly enforced. Specifically, the EU legislation that implements the requirements of the EDP does not provide any condition about the execution of this criterion (European Commission, 2011). While this absence does not legally exclude the possibility that countries could be placed in EDP for high levels of debt, it makes more politically difficult to do so.

Theoretically, it has been explained that supranational rules are welfare improving relative to merely national regimes, but that they cannot fully eliminate the deficit bias, which calls for strong national rules as well (Krogstrup and Wyplosz, 2010). Specifically, at the EU level, fiscal rules have been shown to be effective, apart from leading to significant creative accounting aimed at overcoming them (von Hagen and Wolff, 2006; Buti *et al.*, 2006). Bernoth and Wolff (2008) highlight the impact of hidden policy activity, creative accounting practices, and transparency of government budgeting on sovereign spreads in the euro area.

Curiously, there is no EU rule about the current account deficit although this has played a critical role in the Greek and Portuguese cases. Apart this omission, it is evident that the EU rules have limited effect in preventing excessive deficits, particularly in recession periods. In 2009 and 2010, the Council applied the corrective arm of the SGP to almost all EU Member States. Greece, Latvia, Lithuania, Romania, Malta, Poland, Bulgaria, Denmark, Belgium, the Czech Republic, Germany, Italy, France, Spain, Ireland, the Netherlands, Austria, Portugal, Slovenia, Slovakia, Cyprus and Finland were placed under the EDP, while Hungary and the United Kingdom had their prior recommendations revised. In 2010, the Council gave notice to Greece to take measures to correct its excessive deficit by 2012. The requirements of Member States placed under the EDP were set so as to take the particular needs and circumstances of the different countries in the wake of the Great recession into account, as allowed by the SGP rules.

So, before introducing in Constitution fiscal rules of uncertain result EU, and forcefully EMU, should increase efforts to place countries at their MTO, given that some researchers have found fiscal rules as influential in initiating durable fiscal

consolidations (Larch and Turrini, 2008) and in fulfilling medium-term fiscal plans presented in the Stability and Convergence Programmes of EU members, which are central for the EU budgetary scrutiny (von Hagen, 2010).

4. Country's misbehaviour or systemic crisis?

Before joining the EMU, the periphery countries could have relied on a weaker currency to boost exports and to support growth while undertaking the adjustment. With the exchange rate no longer available as a correction mechanism, the challenge now is how best to lower domestic spending while sustaining growth. One set of adjustment policies focuses on raising national saving through fiscal austerity measures, even if they are painful to execute. Unsurprisingly, reductions in government spending or increasing taxes make the current economic welfare worse. The advantage of fiscal policy is that contraction measures are simple to recognize, and so national governments and European organizations (Commission, Council) appreciate them because they calm the market distrusts, since they have an additional advantage: the guarantee of working relatively quickly. One risk, however, is that austerity measures prove self-defeating by obstructing growth and deteriorating the economy's tax basis.

The periphery countries, which lost competitiveness from 1999 to 2008, have to start improving it. Given the impossibility of using a devaluation of the currency, they try another solution: engineering an internal devaluation, i.e. bring down wages and prices relative to those of the competitors. This can only be attained by deflationary macroeconomic policies (mainly budgetary policies). However these policies have negative effects on economic growth. Inevitably, they will first lead to a recession and thus (through the operation of the automatic stabilizers) to increases in budget deficits. As countries experience increasing budget deficits while they attempt to improve their competitiveness, financial markets are likely to get nervous.

Euro area periphery governments have been taking strong actions on the fiscal front, with fiscal balances in 2011 expected to run several percentage points below their 2009 peaks. Economic performance, however, was poor, with growth averaging -1.1 percent for the group in 2010, compared with 2.1 percent for the rest of the euro area (Higgins and Klitgaard, 2011: 7). Can economic growth return as fiscal consolidation continues? Can political support for consolidation hold up if growth does not return?

The correct answer to these open questions depends on our comprehension about the nature of the crisis. Some consider it as basically a national problem and, as so, it must be solved by country specific measures. This was clearly the understanding of the EU authorities when crisis start in Greece. However, now there are few doubts that it is an essentially systemic phenomenon that affects all the EU. And, consequently it calls for a supranational solution. But, on the other hand, a member of a monetary union has per se very limited instruments for solving a debt crisis.

It is well known that periphery countries have lost the possibility of using the exchange rate as a correction mechanism through the depreciation of the currency. But they don't only lost the possibility of depreciating their currency; they also lost control over the currency in which they issue debt (De Grauwe, 2011). This latter feature is important for explaining the different nature of a debt crisis between members and non-members of a monetary union. Comparing Spain with the UK, De Grauwe (2011) states that the creditors' distrust leads to an equilibrating mechanism in the UK and to a potentially disequilibrating mechanism in Spain, and concludes that "in a monetary union, countries become vulnerable to self-fulfilling movements of distrust that set in motion a devilish interaction between liquidity and solvency crises" (De Grauwe, 2011: 5).

Members of a monetary union issue debt in a currency over which they have no control. It follows that financial markets acquire the power to force default on these countries. This is not the case in countries that are not part of a monetary union, and have kept control over the currency in which they issue debt. These countries cannot easily be forced into default by financial markets. So, as De Grauwe (2011) has demonstrated, a monetary union has a significant potentially destructive dynamics: Members of a monetary union are much more vulnerable to liquidity movements than non-members. In fact, when creditors fear some payment difficulty (e.g. owing to a recession that leads to an increase in the government budget deficit), liquidity is sudden stopped (moved out the national market). If the country gets on austerity measures to improve competitiveness through deflation, distrust may install itself. This initiates a vicious circle that transforms a liquidity emergency into a solvency crisis. Once a member country gets entangled in a liquidity crisis, interest rates are pushed up. Creditors can then claim that they were right to pull out the money from that national

market. There is here a self-fulfilling prediction: the country has become insolvent because creditors fear insolvency.

This vicious interaction explains why the period during which member countries try to improve their competitiveness is likely to be painful and tumultuous: Painful, because of the recession and the consequent increase in unemployment; tumultuous, because during the adjustment period, the country can be beat by sovereign debt and banking crises. If the latter occurs, the deflationary spiral is inevitably intensified. In that case the domestic long term interest rate increases dramatically, forcing the authorities to apply even more budgetary austerity, which in turn leads to an even more intense recession. The banks that are trapped in a funding crisis reduce their credit to the economy. As a consequence the country finds itself trapped in a bad equilibrium, characterized by austerity programs that fail to reduce budget deficits because they lead to a downward economic spiral and punishing interest rate levels. This means that the path towards recovery for members of a monetary union is about to be crisis-friendly.

The contrast with non-members that have the capacity to issue debt in their own currency is evident. When these countries have lost competitiveness, they will typically try to restore it by allowing the currency to drop in the foreign exchange market. This makes it possible not only to avoid deflation, but also to avoid a sovereign debt crisis. As we have seen earlier, these countries' governments cannot be forced into default by generating a liquidity crisis. What is more the whole adjustment process involving currency depreciation is likely to boost output and inflation, thereby improving the solvency of the sovereign. In fact, the country solvency doesn't depend only on the debt burden (i.e., the debt to GDP ratio) but also on the difference between the nominal interest rate and the nominal growth rate as is visible in condition (1).

$$s \geq (r - g) \frac{D}{Y} \quad (1)$$

Where s is the primary budget surplus to GDP ratio, r is the nominal interest rate, g is the nominal growth rate of GDP, D is the government debt and Y is the GDP.

But the self-fulfilment mechanism is not the only negative characteristic of the debt crisis in a monetary union. There are two other problems that should be analysed. First, the liquidity emergency affects domestic banks in several ways. When investors pull out from the domestic bond market, the interest rate on government bonds

increases. Since the domestic banks are usually the main creditors in the domestic bond market, they suffer considerable losses on their balance sheets. Besides, domestic banks are caught up in a funding crisis. Since the domestic money stock declines it is not easy for the domestic banks to rollover their deposits, unless paying excessive interest rates. Thus the sovereign debt crisis spills over into a domestic banking crisis, even if the domestic banks were initially sound. This aspect has played an important role in the case of Greece and Portugal where the sovereign debt crisis has led to a complete banking crisis⁷. But given the close relationships between banks of different country members, the financial market and the banking sector in other countries are also negatively affected even if they were previously sound. Arezki et al. (2011) confirmed this point by finding strong spillover effects in the Euro zone. These negative externalities are a strong force of instability that can only be overcome by public action.

Second, once in a recession, members of monetary union find very difficult, if not impossible, to use automatic budget policies to stabilize the business cycle. A recession leads to higher government budget deficits; this in turn leads to distrust of markets in the capacity of governments to service their future debt, generating a liquidity and solvency crisis; the latter then forces austerity programs in the midst of a recession. In the case of a non member country this does not happen because the distrust generated by higher budget deficit activates a stabilizing mechanism.

The automatic stabilizers in the government budget constitute important policy instruments in the developed world as they alleviate the pain for many people created by the breaks in economic activity of capitalist societies. If a monetary union destroys these automatic stabilizers, it is uncertain if the social and political basis for such a union can be maintained. It is therefore imperative to design a governance structure that preserves these automatic stabilizers.

5. Governance issues

5.1. The Euro zone's vulnerability

This systemic character of the crisis has several implications. First, the sovereigns of the member states in a monetary union become vulnerable, as unfavourable market sentiments can force them into default. This vulnerability has the

⁷ In Ireland, there was a banking crisis preceding the sovereign debt crisis, which in fact generated the sovereign debt problems. However, these intensified the banking crisis.

effect of pushing the country into a “bad” equilibrium (De Grauwe, 2011) characterized by persistently high budget deficits, severely high interest rates, low economic growth and domestic banking crisis.

Second, the degree of financial integration in the monetary union is such that when some sovereigns are pushed into a bad equilibrium, this makes more fragile the banking system in other member countries. Thus, strong externalities are created, making it impossible to isolate a financial problem of one country from the rest of the Euro zone. Put differently, when one country experiences a debt problem, this becomes a problem of the whole Euro zone. In our view the governance structure that is now being designed does not sufficiently take into account the systemic nature of the debt crisis.

Two problems of a monetary union require government action. First, there is a coordination failure. Financial markets can drive countries into a trap resulting from a self-fulfilling mechanism. This coordination failure can in principle be solved by collective action aimed at orienting countries towards equilibrium. Second, the Euro zone creates externalities (mainly through contagion) and similarly to what happens with all externalities, public intervention should consist in internalising them.

Both collective action and internalisation can be taken either at the level of the central banks or at the level of the government budgets. Given that non-member countries can avoid liquidity crises principally because the sovereign can force the central bank to provide it with all the necessary liquidity, a similar solution can also be attained in a monetary union if the common central bank is willing to buy the different sovereigns’ debt. In fact, this is what happened in the Euro zone during some periods of the debt crisis. The ECB bought government bonds of distressed member countries, either directly, or indirectly by accepting these bonds as collateral in supporting their banks. In this way, the ECB re-channelled liquidity to countries affected by a liquidity crisis, and prevented the centrifugal forces created by financial markets from breaking up the Euro zone. In fact, if the purpose of the central bank is to preserve the monetary union, this is the right policy. However, the ECB has been heavily criticized for acting in this way. As a consequence of this censure, the ECB has trying to limit its intervention and has recommended that the assistance should be done instead by other institutions, such as an EMF (European Monetary Fund). Acting in this way the ECB is

giving a wrong message to financial markets. The correct action should imply that the ECB is available to a limitless intervention in the market.

Collective action and internalisation can also be taken at the budgetary level. Ideally, the proper instrument of collective action and internalisation is a budgetary union. If national government budgets are consolidated into a central budget it is possible to organize an instrument of automatic transfers that works as an insurance mechanism relocating resources to members affected by negative economic shocks. In addition, this creates a common fiscal authority that can issue debt in a currency controlled by that authority. Doing so, the budgetary union protects its members from being forced into default by financial markets. But, above all, it protects the monetary union from the centrifugal forces caused by the financial markets.

Of course, this solution of the systemic problem of the Euro zone requires a far-reaching degree of political union. While economists have stressed that such a political union will be necessary to sustain the monetary union in the long run (European Commission, 1977; De Grauwe, 1992), it is obvious that there is no willingness in Europe nowadays to significantly increase the current degree of integration. This aversion to go on the direction of more political union will continue to make the Euro zone a “fragile” construction (De Grauwe, 2011).

5.2. The “second best” solution

Since there are not conditions to follow the above strategy, one can consider a second best one: a path made of small steps. Such an approach not only would allow solving the most immediate problems, but also would signal the sincerity of European authorities in moving forward in the direction of more political union. Given the current reluctance in going towards a higher degree of integration it only appears as viable for Euro zone to follow this second best solution.

The debt crisis has forced European leaders to implement new institutions capable of dealing with the crisis. The creation of the EFSF (European Financial Stability Facility) in May 2010 was the most impressive response. It will be transformed into a permanent European rescue fund, the ESM (European Stabilization Mechanism), which will obtain funding from the participating countries and will provide loans to countries in difficulties, after 2013. This step goes in the direction of a European

Monetary Fund, as was first proposed by Gros and Mayer (2010). Surely these were important steps that were necessary to maintain the stability of the Euro zone. Nevertheless, the opposition against these decisions continues to be high especially in Northern European countries. This is because in explaining the debt crisis as a succession of individual problems critics fail to understand the systemic nature of the debt crisis and its consequent effects on the other Euro zone countries.

Although important steps these instruments have many drawbacks. The levels of interest rates and collective actions clauses have prevented these instruments from being succeeded in stabilizing the Euro zone. In fact, the high interest rate applied by the EFSF in the rescue programs of peripheral countries has had very adverse effects. First, by charging this high interest rate it makes it more difficult for the government of the stressed countries to cut its budget deficit and to slow down debt accumulation. Second, by charging a high spread above the risk free rate that the core country governments enjoy, the EFSF signals to the market that there is a significant risk of default, and thus that the government of peripheral countries may not succeed in solving the budgetary disequilibria. So, it is essential that the ESM can take a more clever approach in lending to distressed countries than the EFSF previously did.

According to De Grauwe (2011), the intelligent approach in financial assistance consists in using a policy of the stick and the carrot. The stick is the conditionality, i.e. an austerity package designed over a long enough span, so that economic growth can occur. The carrot is providing an interest rate that makes easier to stop the debt accumulation. A low interest rate also demonstrates confidence in the success of the package, which is fundamental to induce financial markets to buy the government debt at a reasonable interest rate. Unfortunately, the future ESM will apply an interest rate that is 200 basis points above its funding rate. There is no good reason for the ESM to do this except for punishing bad behaviour. But applying such a risk premium, the ESM will signal to the market that it does not truly believe in the success of its own lending programme. This is not an intelligent action because in doing so the ESM is also diminishing the chance of be paid in future.

There are other features of the ESM that will undermine its capacity to stabilize the sovereign bond markets in the Euro zone. From 2013 on, all members of the Euro zone will be obliged to introduce “collective actions clauses” when they issue new

government bonds. The practical implication of these clauses is that confidence in the debt goes down. When in the future, a government of the Euro zone turns to the ESM to obtain funding, private bondholders may be asked to share in the restructuring of the debt. Put differently, they may be asked to take some of the losses and, in this way, bondholders will be forced to think twice when they invest in government bonds. Investors will view these clauses as a signal that those bonds may not be as secure as they previously thought.

Although the intention may be good, the effect will be negative (see De Grauwe, 2010). In fact we have already seen the effects. When the German government made the first proposal to introduce collective action clauses at the European Council meeting of October 2010, the immediate effect was to intensify the crisis in the Euro zone sovereign bond markets (De Grauwe, 2011). All this is quite unfortunate. Especially because the existence of a financial support mechanism in the Euro zone is a significant step forwards in the building of an integrated Europe (Peirce *et al.*, 2011). Unfortunately, by introducing all kinds of restrictions and conditions, the ESM has been transformed into an instrument that is unlikely to produce more stability in the Euro zone.

6. The need for economic growth

Periphery countries are confronted with not only their debt burden but also with the prospect of ageing populations in a context characterized by very low rates of growth. Those populations have been promised benefits to which they feel entitled, and have grown used to a standard of living that may have been exaggerated by the availability of cheap credit. With the current restrictions people's expectations will have to be managed downwards, which is a complicated process, as Greece has been demonstrating.

But in spite of attentions are focused on periphery countries, this doesn't mean that problems are limited to these countries. On the contrary, economic growth is in fact a big problem not only to periphery but also for EU as a whole. However, in spite of being alert to this problem, EU and Euro zone seem not being succeeded in diagnostic and therapy. Table 1 shows an indicator of productivity (annual exponential growth rate of GDP per person employed in constant 1990 PPP dollars) in EU and other economies

for two periods: 1990-2000 and 2001-2008. It is apparent that EU and Euro zone present stumpy growth rates (lower than world average in the Euro zone) of productivity in the last decade of the twentieth century. These stumpy growth rates are in the origin of the Lisbon Strategy, which intended to take in hand the low productivity and stagnation of economic growth in the EU, through the formulation of various policy initiatives to be taken by all EU member states. Although the Lisbon Strategy mostly aimed to “make Europe, by 2010, the most competitive and the most dynamic knowledge-based economy in the world”, it is clear from the table that not only this aim was not attained but, on the contrary, Euro zone experienced a misery growth in the 2001-2008 period.

This stumpy growth, in increasing the debt burden and in making the need of high primary budget surpluses mandatory, contributes to the distrust of financial markets in the Euro zone. So, for overcoming the crisis it is important that Euro zone can significantly increase the growth prospects. But this implies to know the causes of the past stumpy growth.

Table 1: GDP per person employed (constant 1990 PPP \$)

	1990-2000	2001-2008
Euro zone	1.56*	0.82
EU	2. 0*	1.36
World	1.73*	3.12
China	5.97	10.14
India	4.1	5.44
US	1.9	1.57
Germany	1.54*	0.92
Portugal	2.13	0.89
Ireland	3.3	1.63
Italy	1.62	0.17
Spain	1.08	- 0.41

Source: WDI (2011)

Note: * only 1991-2000.

What are the causes of the Euro zone disappointing economic results? The causes are numerous, and investigate all of them is not practicable in this paper, but several disequilibria internal to the Euro zone are likely to play a significant role. In this respect two disequilibria are noteworthy: on the one hand the maladjustment in trade and on the other the disequilibria in financial markets.

6.1. Imbalances

First, if the export-led growth of Germany and other north-European countries is limited by the low import capacity of periphery, austerity in the latter will hurt growth in the former. In fact, the correction in the periphery countries would also occur more easily and with a reduced pull on living standards if core countries change their policies, for instance, if a reduction in Germany's saving surplus through higher domestic consumption does occur. This would allow the periphery countries to increase export income even if they made only narrow progress in getting better competitiveness. In fact, Germany is locked in to export-led growth, and does not seem fully to understand that if it abandons its European neighbours and euro partners by running a permanent export surplus, it will end up by trapping itself. In fact, an economic and monetary union could only function effectively over the long run if there were mechanisms in place to promote adjustment in countries with surpluses as well as those with deficits, as John Maynard Keynes argued several decades ago (Joshi and Skidelsky, 2010; Skidelsky, 2011). Once more moral prejudices complicated the crisis solution: if core countries go on insisting in considering themselves as ants that are morally superior to grasshoppers, the change in policies doesn't occur and disequilibria will persist.

Second, problems affecting equilibrium in the financial markets can provide another explanation for the low growth rate. It is evident that the mechanism that drives funds from savers to investors is not working well in the Euro zone, since citizens of countries that run current-account surpluses, as German and other North European savers are limited in the prospects of options to their savings after have suddenly discovered risk across the European periphery.

The households of those countries continue to save, accumulating deposits at their local banks and buying bonds from their local wealth managers. But they feel that the Euro zone has become such a dangerous place that they no longer dare to invest abroad. Greece, Ireland, and Portugal are banned because their bonds no longer rate as investment-grade, which means that banks are not allowed to sell them to individual savers. But even investment-grade Italy and Spain have now suddenly been classified as insecure, implying that risk managers everywhere tell investors to cut their exposure.

The fundamental problem is simple: the market cannot be brought back into equilibrium when savers do not want to lend to those who would be willing to take

these savings. Lower interest rates are not a solution to this problem. In Europe, lower interest rates are risk aggravating the problem by lowering the returns for savers. When the yield on German government bonds falls to 2%, which is negative in real terms, German savers must redouble their efforts to attain a certain target for retirement income. This is one of the many reasons why the current spiral of ever-lower interest rates in Germany (and northern Europe) and higher risk premia for most of the rest of the Euro zone is a vicious circle. Lower interest rates lead to lower consumption in surplus countries, thereby increasing the supply of funds for lending. But higher risk premia elsewhere force the rest of the Euro zone to cut spending, thus reducing their demand for these funds.

Indeed, stock markets are experiencing difficulties precisely because investors fear that ever-increasing risk premia in the Euro zone's peripheral countries will force them to stop consuming and investing, leading to lower German rates and thus inducing German households to reduce their consumption as well. But a weaker German economy makes adjustment in the periphery even more difficult.

6.2. Governance again

The most radical way to break the above mentioned vicious circle would be to introduce Eurobonds. National risk premia would then disappear, and German savers would have no problem investing their savings in the Euro zone's periphery, knowing that the German government would ultimately endorse these countries' government bonds. The Euro zone economy could then recover quickly (De Grauwe, 2011; Juncker and Tremonti, 2010). However, Eurobonds would also create huge incentive problems (Issing, 2009), because debtors in the Euro zone periphery would no longer have to fear any punishment by markets and might thus be induced to enforce their grasshoppers' behaviour consuming and investing excessively.

Another solution is to create an EMF (European Monetary Fund), as advocated by Gros and Mayer (2010), in order to provide bridging finance when capital markets break down. The EMF will be a mechanism that lets the capital market function most of the time, but that makes possible to intervene when market closes down. There is already in Europe an institution that can fulfil such task: the EFSF (European Financial Stability Facility) if conveniently financed. But even the creation of an EMF cannot

save the Euro zone economy if trust between core and periphery countries goes down. The general lesson from the Euro zone debt crisis is simple: ants should not punish grasshoppers because they are not behaving as ants, but must profit from the complementarity with them. So, given that some countries have chronic excess savings (Germany, north European countries), the Euro zone economy cannot recover without finding ways to channel these excess savings to economies that are both creditworthy and disposed to borrow. So, both sides will have to make an effort in seeking equilibrium: Creditors must accept some risk, and debtors must enhance their creditworthiness through structural fiscal adjustment and reforms that improve their growth prospects. But, without growth prospects all the austerity will be vain.

7. Conclusion

Large saving imbalances characterize euro area countries involved in the recent sovereign debt crisis. The crisis was sparked by a failure of confidence by private investors in periphery countries' government debt, causing a spike in domestic interest rates. As a result, periphery countries will likely have to change their behaviour greatly reducing borrowing from foreign creditors. The borrowed funds had supported higher spending at a relatively low cost. Now, a difficult adjustment to the inexistent foreign cheap financing is happening.

The difficulty of the adjustment process highlights the dangers of large disparities in a monetary union. With an independent national currency, policymakers can use currency depreciation to obtain quick gains in competitiveness, replacing foreign borrowing — at least in part — with higher export revenues. How painful the adjustment process for periphery countries will prove depends on how quickly these countries boost their competitiveness in traded goods' industries, and on the pace of demand growth in the rest of the world and, above all, in the euro area core countries. The threat is that failure to achieve sustained productivity gains would leave adjustment to occur only through lower wages and slower growth in domestic consumption and investment spending. Since members of a monetary union have lost much of their capacity to apply counter-cyclical budgetary policies, they can be forced into a bad equilibrium, characterized by deflation, high interest rates, high budget deficits and a banking crisis. It is evident that with this scenario it is impossible to recover the

markets' confidence. But the correction in the periphery countries would occur with a reduced pull on living standards and more easily if core countries do agree in changing their trade and saving policies.

The euro survival means more economic and fiscal integration, but in spite of this rhetoric are increasing in European political circles, in practice neither a “first best” nor a “second best” solution appears to be sufficiently wanted by the core countries. There is no reason to let euro implode, but this will inevitably happen if the lack of willingness in changing policy and in advancing integration persist. From May 2010 to nowadays the debt crisis is in progress, attacking an increasing number of countries. It is outside of our comprehension that Euro zone cannot put an end on it, unless because of core countries are fascinated in proving the moral superiority of ants over grasshoppers. But this is another story, or perhaps not.

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