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The end of the Eurocrisis?

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We argue, first, that the Eurozone crisis has left a legacy of unsustainable government debt levels. These will continue to exert a deflationary dynamics in the Eurozone except if creditor nations are willing to contemplate a debt restructuring. Second, we argue that the institutional innovations since the start of the debt crisis fall short of what is needed to solve the design failures of the Eurozone. In addition, they are not sustainable, mainly because they have led to a situation where bureaucratic institutions have been vested with more responsibilities without a concomitant increase in the democratic legitimacy of these institutions. We conclude that the Eurocrisis is not over.

Introduction

After years of turbulence in the Eurozone that at some point led to existential fears about the survival of the monetary union, peace and tranquility seem to have returned in 2014. This leads to the question of whether the Eurocrisis is over. In official circles the view prevails that this is the case and that the return of tranquility is the result of the institutional changes that have been introduced since the start of the sovereign debt crisis in 2010. Prominent among these institutional changes is the setup of tighter discipline in fiscal policies, the monitoring of macroeconomic imbalances, and the banking union.

In this paper we dispute this view. We will, first, analyze the legacy of the sovereign debt crisis, arguing that this crisis has led to unsustainable debt levels that will continue to haunt the Eurozone. Second, we will argue that although there has been some progress towards institutional reform, this falls short of what is needed to deal with the design failures of the Eurozone.

New governance of the Eurozone: Creditor nations rule supreme

There can be little doubt that the European Central Bank (ECB) saved the Eurozone, at least for the time being, when in 2012 it announced its Outright Monetary Transactions (OMT) programme. This is a commitment to provide unlimited amounts of liquidity in the sovereign bond markets of the Eurozone in times of crisis. The ECB's announcement, however, did not prevent the Eurozone from developing into a governance in which the creditor countries dictate the budgetary and macroeconomic policies for the Eurozone as a whole.

The Southern European countries (including Ireland) are the ones which have accumulated current account deficits in the past, while the Northern Eurozone countries[1] have built up current account surpluses. As a result, the Southern countries have become the debtors and the Northern countries the creditors in the system (see Figure 1). This has forced the Southern countries hit by sudden liquidity stops to beg the Northern ones for financial support. The latter have reluctantly done so but only after imposing tough austerity programmes pushing these countries into quick and deep spending cuts.

Put differently, the creditor nations have imposed their interests on the whole system. Their interest is that the loans they have extended recklessly to the South in the past should be repaid in full. Austerity is the mechanism to achieve this objective.

What is surprising is that the European Commission has accepted to become the agent of the creditor nations in the Eurozone, pushing austerity as the instrument to safeguard the interest of these nations. The Commission could have decided otherwise and become the agent of the debtor nations protecting these from the insistence of reckless creditors to be repaid in full. This has been the response of many governments after the banking crisis. In many countries, legislation has been introduced to protect consumers and house-owners from the banks' insistence on full repayment. The view in many countries has been that, as the banks (the creditors) are equally responsible for the financial crisis, they should face a significant part in the cost of adjustment, mainly by accepting losses on their loan portfolios.

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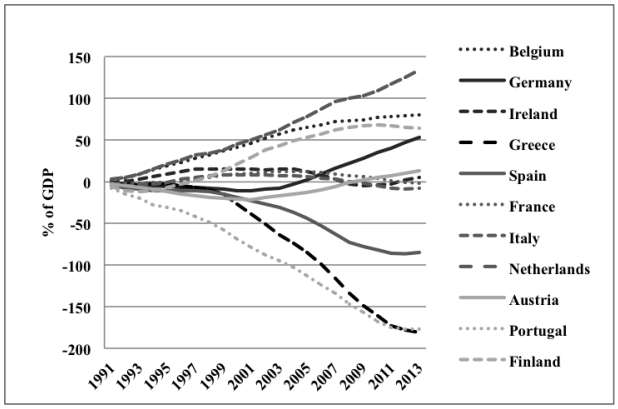
[1] We define Northern Eurozone countries to be Austria, Belgium, Finland, Germany, and the Netherlands.

Figure 1. Cumulated current accounts.



Source: European Commission, AMECO database.

This view has not prevailed in the relations between the creditor and debtor nations of the Eurozone. The former have been viewed as having followed virtuous policies and the latter as having followed foolish ones. As a result, the debtor nations have been forced to bear the full brunt of the adjustment.

This has led to an asymmetric process where most of the adjustment has been done by the debtor nations. The latter countries have been forced to reduce wages and prices relative to the creditor countries (an "internal devaluation") without compensating wage and price increases in the creditor countries ("internal revaluations"). This has been achieved by intense austerity programmes in the South, while in the North no compensating stimulus was imposed.

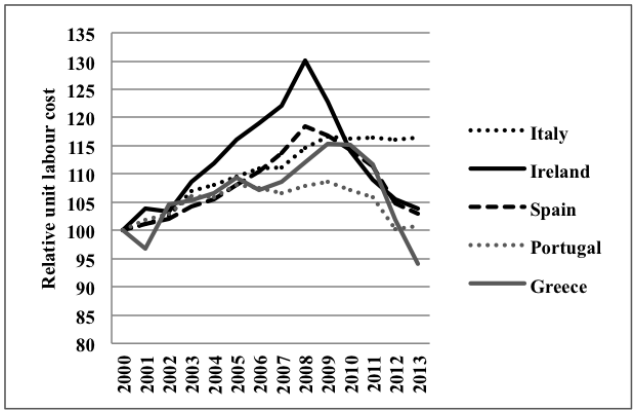
In Figure 2, we show some evidence about the nature of this asymmetry. The figure shows the evolution of the relative unit labor costs[2] of the debtor countries (where we use the average over the 1970-2010 period as the baseline). Two features stand out. First, from 1999 until 2008/09, one observes the strong increase of these countries' relative unit labor costs. Second, since 2008/09 quite dramatic turnarounds in the relative unit labor costs have occurred (internal devaluations) in Ireland, Spain and Greece, and to a lesser extent in Portugal and Italy.

These internal devaluations have come at a great cost in terms of lost output and employment in the debtor countries. As these internal devaluations are not yet completed (except possibly in Ireland), more losses in output and employment are to be expected.

Is there evidence that such a process of internal revaluations has been going on in the surplus countries? The answer is given in Figure 3 that presents the evolution of the relative unit labour costs in the creditor countries. One observes that since 2008/09, there is very little movement in the relative unit labour costs in these countries.

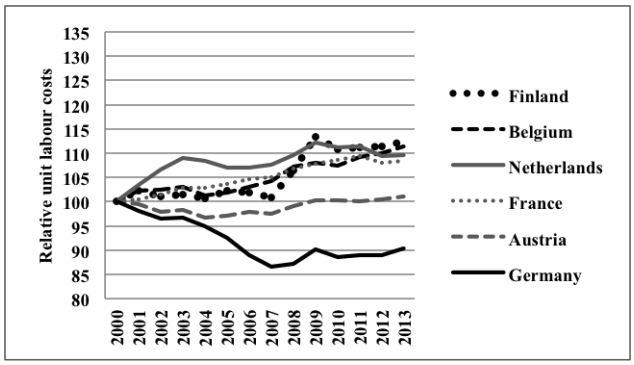
Thus, one can conclude that at the insistence of the creditor nations, the burden of the adjustments to the imbalances in the Eurozone has been borne almost exclusively by the debtor countries in the periphery. This has created a deflationary bias that explains why the Eurozone has been pulled into a double-dip recession in 2011-12, and why it continues to be subject to deflationary forces as testified by the sharp decline in inflation, which in the first half of 2014 dropped to less than 1 %.

Figure 2. Relative unit labour costs in the Eurozone: debtor nations, 2000-2013.



Source: European Commission, AMECO database.

Figure 3. Relative unit labour costs in the Eurozone: creditor nations, 2000-2013.



Source: European Commission, AMECO database.

The legacy of creditor-dictated governance

The creditor-dictated governance that has arisen since the eruption of the sovereign debt crisis in the Eurozone has led to a legacy that will take a long time to turn around. Its most striking feature is that, despite intense austerity programmes that have been triggered since 2010, there is no evidence that these programmes have increased the capacity of the governments of the debtor countries to continue to service their

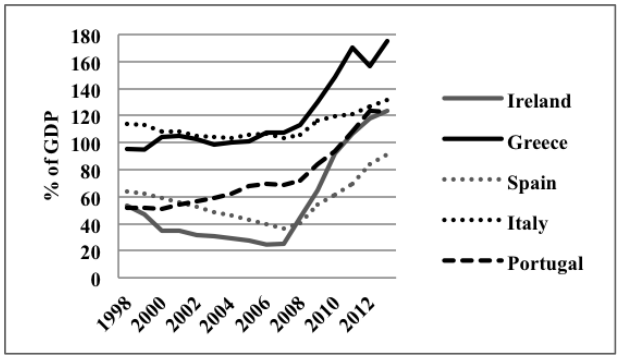
[2] The relative unit labour cost of a country is defined as the ratio of the unit labour costs of that country and the average unit labour costs in the rest of the Eurozone. An increase in this ratio indicates that the country in question has seen its unit labour costs increase faster than in the rest of the Eurozone, and vice versa.

debt. In Figure 4 we show the government debt ratios of the debtor countries. It can be seen that while the debt ratios started to increase in 2008 as a result of the banking crisis, the austerity programmes that were set in motion after 2010 do not seem to have stopped their explosive growth (the possible exception is Ireland). In De Grauwe and Ji (2013), we provide evidence that the austerity programmes in fact have been partly responsible for the further dramatic increase of the government debt ratios. The underlying mechanism is well known. The recession that prevailed in the Southern countries was a "balance sheet recession" in which private agents desperately tried to reduce their debt levels. When at the insistence of the European Commission and the creditor nations the Southern countries' governments also were forced to deleverage, a debt deflation dynamics was set in motion, leading to a deep recession. The latter had the effect of dramatically raising the government debt ratios, for two reasons. First, the intensity of the recession meant that government revenues declined, leading to higher budget deficits. As a result, the debt (the numerator in the debt ratio) continued to increase. Second, the decline in GDP reduced the denominator of the debt ratio. The combined effect is that austerity led to an increase in the debt to GDP ratios. We show these effects in Figures 5 and 6.

Figure 5 shows the negative relationship between austerity (as measured by the IMF Fiscal Impulse variable, i.e. the change in the structural primary budget balance) and cumulative growth during 2009-12. The cross-section sample of Eurozone countries suggests that for every percent of austerity, GDP declined by 1.4 percent. This multiplier, which exceeds 1, is consistent with fiscal multipliers obtained by the IMF.

Figure 6 then shows how the government debt ratios have been positively correlated with the degree of austerity. The countries that applied the most intense austerity measures were also the ones where the debt-to-GDP ratio increased the most.

Figure 4. Gross government debt-to-GDP ratio, 1998-2013.

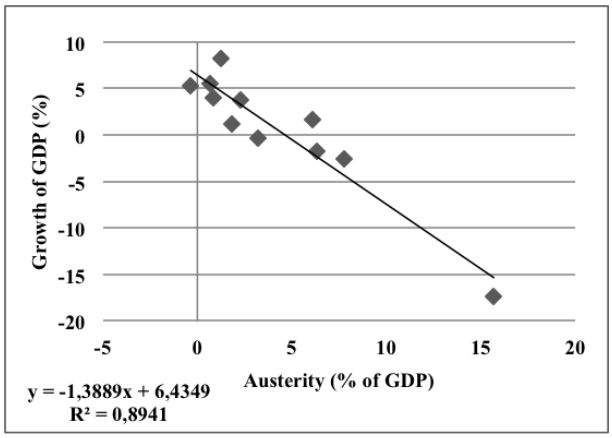


Source: European Commission, AMECO database.

Many economists argue that the buildup of government debt is temporary. Continuing austerity will ultimately be rewarded by declining debt levels. Be patient, we are told. How patient does one have to be? In order to answer this question we simulated the government debt ratios into the future making a number of favourable assumptions for the indebted countries concerned. First, we assume that nominal growth will pick up and be equal to the nominal interest rate. This is a strongly favourable assumption. It implies that the dynamic instability implicit in a nominal growth that falls short of the nominal interest rate is overcome in the debtor countries. This is certainly not the case today in 2014. In all the debtor nations the nominal interest rate continues to exceed the nominal growth rate, creating an explosive debt dynamics.

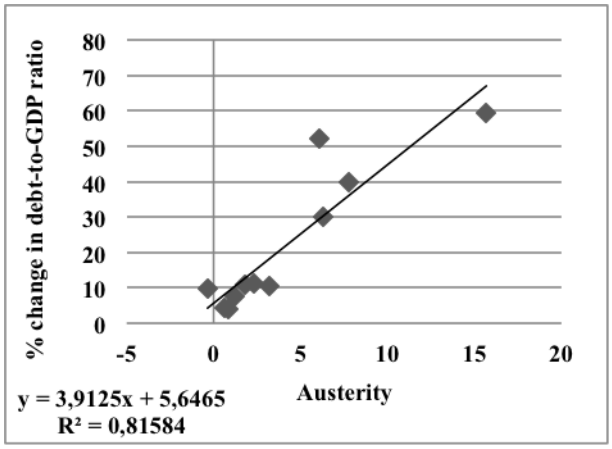
Second, we assume that countries manage to create a primary surplus so that the debt levels start declining. Using these two favourable assumptions, we ask how many years it will take these countries to halve the level of government debt. We show the results in Table 1. We assume several scenarios of primary surpluses (none of which is as yet reached in any of these countries). We find that even under these favourable assumptions, it will take decades for the indebted

Figure 5. Cumulative GDP growth and austerity, 2009-12.



Source: Calculations based on European Commission, AMECO database.

Figure 6. Change in government debt-to-GDP ratio and austerity, 2009-12.



Source: Calculations based on European Commission, AMECO database.

nations to halve their debt levels and to achieve sustainability. Thus, surely with patience and the help of favourable macroeconomic conditions, these countries will be able to achieve sustainability. The issue, however, is whether populations in these countries, which will face decades of the same deflationary medicine, will have enough patience to take it. It is more likely that the lack of patience of millions of people subject to this medicine will be a destabilizing political and social force.

Table 1
Number of years needed to halve the debt levels

	Initial debt	Primary surplus		
		2 %	3 %	4 %
Spain	100	25	16	12
Ireland and Portugal	120	30	20	15
Italy	130	32	21	16
Greece	180	45	30	22

Southern countries are now facing government debt ratios that continue to increase, leading to a situation where their government debts quickly are becoming unsustainable. The continuing application of austerity programmes is unlikely to make these debt levels more sustainable. On the contrary, these policies are likely to put further pressure on the political and social systems of the countries that are subject to these measures. Sooner or later the Eurozone will be faced with the necessity to restructure the debt of these countries.

While the sovereign debt crisis and the austerity inspired policies have led to a legacy of unsustainable debt levels, the design failures of the Eurozone have not been addressed sufficiently. As a result, the prospect of future crises has not been diminished. What are these design failures?

In De Grauwe (2011), these were analyzed in detail. Here we summarize them. We also give more empirical evidence concerning one of these design failures. Finally we ask whether the institutional reforms that have been undertaken so far will be sufficient to correct for these design failures.

Design failures of the Eurozone

The design failures of the Eurozone find their origin in two factors. First, the endogenous dynamics of booms and busts that are part of the capitalistic dynamics continued to work at the national level. The monetary union in no way disciplined these into union-wide dynamics. On the contrary, the monetary union probably exacerbated these national booms and busts. Second, the existing stabilizers that existed at the national level prior to the start of the union were stripped away from the member-states without being transposed at the monetary union level. This left the member states "naked" and fragile, unable to deal with the coming national disturbances. Let us expand on these two points.

Booms and busts dynamics

In the Eurozone, money and monetary policy are fully centralized. However, the rest of macroeconomic policies have remained firmly in the hands of national governments, producing idiosyncratic movements unconstrained by the existence of a common currency. As a result, there is very little in the monetary union that can make the booms and busts converge at the Eurozone level. The effect of all this is that booms and busts originate at the national level and have a life of their own at the national level without becoming a common booms-and-busts dynamics at the Eurozone level.

In fact, it is even worse. The existence of the monetary union can exacerbate booms and busts at the national level. The reason is that the single interest rate that the ECB imposes on all the member countries is too low for the booming countries and too high for the countries in recession. Thus, when the economy started to boom in Spain, Ireland, Greece, inflation also picked up. As a result, the single nominal interest rate led to a low real interest rate in the booming countries, thereby aggravating the boom. The opposite occurred in the countries experiencing low growth or a recession.

Thus, the fact that only one interest rate exists for the union exacerbates these differences, that is, leads to a stronger boom in the booming countries and a stronger recession in the recession countries than in the absence of the monetary union. The effects of these divergent macroeconomic movements have by now been well documented. These led to divergences in inflation and relative unit labour costs and to current account imbalances. The booming Southern European countries (including Ireland) experienced systematically higher inflation rates and increases in unit labour costs than in the rest of the Eurozone. These booms led to large current account deficits in the South and surpluses in the North. As stressed earlier, the booms in the South allowed the Northern European countries to accumulate large current account surpluses. These were financed by credit that the Northern European countries granted to the South. It is important to recognize this, because in the North of Europe the irresponsibility of Southern countries to take on too much debt is often stressed. The truth is that for every foolish debtor there must be a foolish creditor.

No stabilizers left in place

With the Eurozone, a fundamental stabilizing force that existed at the level of the member-states was taken away from these countries. This is the lender of last resort function of the central bank. Suddenly, member countries of the monetary union had to issue debt in a currency they had no control over. As a result, the governments of these countries could no longer guarantee that the cash would always be available to roll over the government debt. Prior to entry into the monetary union, these countries could, like all stand-alone countries, issue debt in their own currencies, thereby giving an implicit guarantee that the cash would always be there to pay out bondholders at maturity. The reason is that as stand-alone countries, they had the power to force the central bank to provide liquidity in times of crisis.

What was not understood when the Eurozone was designed is that this lack of guarantee provided by Eurozone governments could in turn trigger self-fulfilling liquidity crises (a sudden stop) that would degenerate into solvency problems. This is exactly what happened in countries like Ireland, Spain, and Portugal.[3] When investors lost confidence in these countries, they massively sold the government bonds of these countries, pushing interest rates to unsustainably high levels. In addition, the euros obtained from these sales were invested in "safe countries" like Germany. As a result, there was a massive outflow of liquidity from the problem countries, making it impossible for the governments of these countries to fund the rollover of their debt at a reasonable interest rate.

This liquidity crisis in turn triggered another important phenomenon that we have documented in the previous section. It forced countries to switch off the automatic stabilizers in the budget. The governments of the problem countries had to scramble for cash and were forced into instantaneous austerity programmes, by cutting spending and raising taxes. A deep recession was the result. The recession in turn reduced government revenues even further, forcing these countries to intensify the austerity programmes. Under pressure from the financial markets and the creditor nations, fiscal policies became pro-cyclical, pushing countries further into a deflationary cycle. As a result, what started as a liquidity crisis degenerated in a self-fulfilling way into a solvency crisis.

Thus, we found out that financial markets acquire great power in a monetary union: they can force countries into a bad equilibrium characterized by increasing interest rates that trigger excessive austerity measures, which in turn lead to a deflationary spiral that aggravates the fiscal crisis (see De Grauwe 2011; De Grauwe & Ji 2013).

The Eurozone crisis that we now witness is the result of a combination of the two design failures identified here. On the one hand, booms and busts continued to occur at the national level. In fact, these were probably intensified by the very existence of a monetary union. On the other hand, the stripping away of the lender of last resort support of the member state countries allowed liquidity crises to emerge when the booms turned into busts. These liquidity crises then forced countries to eliminate another stabilizing feature that had emerged after the Great Depression, that is, the automatic stabilizers in the government budgets. As a result, some countries were forced into bad equilibria (Gros 2012).

What are the policy implications of these insights? We analyze two of them. The first one relates to the role of the ECB; the second one has to do with the long-run need to move into a fiscal union.

The ECB as a lender of last resort in the government bond markets

The ECB is the only institution that can prevent market sentiments of fear and panic in the sovereign bond markets from pushing countries into a bad equilibrium. As a money creating institution, it has an infinite capacity to buy government bonds. The European Stability Mechanism (ESM) that became operational in October 2012 has limited resources and cannot credibly commit to such an outcome. The fact that resources are infinite is key to be able to stabilize bond rates. It is the only way to gain credibility in the market.

On September 6, 2012, the ECB finally recognized this point and announced its OMT programme, which promises to buy unlimited amounts of sovereign bonds during crises. It is interesting to quote Mario Draghi who justified the OMT programme as follows: "you have large parts of the euro area in a bad equilibrium in which you may have self-fulfilling expectations that feed on themselves... So, there is a case for intervening... to "break" these expectations, which... do not concern only the specific countries, but the euro area as a whole. And this would justify the intervention of the central bank" (cited by Wolf 2012).

Thus, the ECB has made the right decision to become a lender of last resort, not only for banks but also for sovereigns, thereby re-establishing a stabilizing force needed to protect the system from the booms-and-busts dynamics. In Figure 7, we show the evolution of the spreads before and after the OMT announcement of 2012. It can be seen that since that announcement, the spreads declined dramatically. By taking away the intense existential fears that the collapse of the Eurozone was imminent, the ECB's lender of last resort commitment pacified government bond markets and led to a strong decline in the spreads of the Eurozone countries.

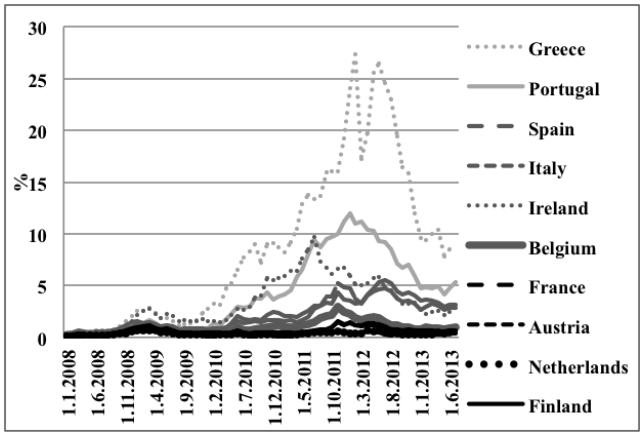
However, the credibility of the programme suffers because of continuing vehement criticism. Many arguments continue to be voiced against the view that the ECB should be a lender of last resort in the government bond markets. Some of them are phony, in particular the inflation risk argument (see De Grauwe 2011; Wyplosz 2012). Others are serious like the moral hazard risk. The latter, however, should be taken care of by separate institutions aimed at controlling excessive government debts and deficits. These are in the process of being set up (European Semester, Fiscal Pact, automatic sanctions, etc.). This disciplining and sanctioning mechanism, then, should relieve the ECB from its fears for moral hazard.

The continuing fierce criticism against the notion that the ECB should be a lender of last resort in the government bond markets reached its climax when the German Constitutional Court declared OMT illegal and referred the case to the European Court of Justice with the demand that conditions be imposed on the OMT programme that would make it ineffective and useless. The main argument made by the German judges is that the spreads reflect underlying economic fundamentals. Attempts by the ECB to reduce these spreads are attempts to counter the view of market participants. In doing so, the ECB is in fact pursuing economic policy, which is outside its mandate.

Implicit in this argument is the view that markets are efficient (see De Grauwe 2014; Winkler 2014). The surging

[3] Greece does not fit this diagnosis. Greece was clearly insolvent way before the crisis started, but this was hidden to the outside world by a fraudulent policy of the Greek government of hiding the true nature of the Greek economic situation (see De Grauwe 2011).

Figure 7. Spreads over German Bunds in 10-year government bonds in the Eurozone, January 2008-July 2013.



Source: European Commission, AMECO database.

spreads observed from 2010 to the middle of 2012 were the result of deteriorating fundamentals (e.g. domestic government debt, external debt, competitiveness, etc.). Thus, the market was just a messenger of bad news. Its judgment should then be respected, also by the ECB. The implication of the efficient market theory is that the only way these spreads can go down is by improving the fundamentals, mainly by austerity programmes aimed at reducing government budget deficits and debts. With its OMT programme, the ECB is in fact reducing the need to improve these fundamentals.

Another theory, while accepting that fundamentals matter, recognizes that collective movements of fear and panic can have dramatic effects on spreads. These movements can drive the spreads away from the underlying fundamentals, very much like in the stock markets prices can be gripped by a bubble pushing them far away from the underlying fundamentals. The implication of that theory is that while fundamentals cannot be ignored, there is a special role for the central bank that has to provide liquidity in times of market panic. This is the view we have defended in the previous sections.

This decision of the ECB provides us with an interesting experiment to test these two theories about how spreads are formed. In De Grauwe and Ji (2013), such a test was performed. The time series, however, ended just before the OMT announcement. More data have since become available, allowing us to also test for the impact of OMT. We do this in the next section.

Testing two theories of the spreads

The spreads (over German Bunds) in government bond rates (10 year) have been subjected to wild fluctuations since the start of the financial crisis in 2008. While prior to the crisis these spreads had been close to zero, they started to increase spectacularly from 2010 on. In De Grauwe and Ji (2013), we showed that this spectacular increase can only in a very limited extent be associated with deteriorating fundamentals, and that most of the surge is due to strongly negative market sentiments. Since the third quarter of 2012 (2012Q3), the spreads begin to decline spectacularly (see Figure 7). Our econometric analysis aims at determining how much of the decline is due to improving fundamentals and how much is due to positive market sentiments triggered by the announcement of OMT in the third quarter of 2012.

We specify an econometric model of the spreads. We rely on the existing literature to do so.[4]

The most common fundamental variables found in this literature are variables measuring the sustainability of government debt. We will use the debt-to-GDP ratio as a measure of sustainability. In addition, we use the current account position, the real effective exchange rate, and the rate of economic growth as fundamental variables affecting the spreads. The effects of these fundamental variables on the spreads can be described as follows.

• When the *government debt-to-GDP ratio* increases, the burden of the debt service increases, leading to an increasing probability of default. This in turn leads to an increase in the spread, which is a risk premium investors demand to compensate them for the increased default risk.[5]

• The accumulated *current account* measures the net foreign debt of the country as a whole (private and official residents). It is computed as the current account accumulated since 2000Q1, divided by its GDP level. If the increase in net foreign debt arises from the private sector's overspending, it will lead to default risk of the private sector. However, the government is likely to be affected because such defaults lead to a negative effect on economic activity, inducing a decline in government revenues and an increase in government budget deficits. If the increase in net foreign indebtedness arises from government overspending, it directly increases the government's debt service, and thus the default risk.

• The *real effective exchange rate* as a measure of competitiveness can be considered as an early warning variable, indicating that a country that experiences a real appreciation will run into problems of competitiveness, which in turn will lead to future current account deficits and future debt problems. Investors may then demand an additional risk premium.

• *Economic growth* affects the ease with which a government is capable of servicing its debt. The lower the growth

[4] See, Attinasi et al. (2009); Arghyrou & Kontonikas (2010); Gerlach et al. (2010); Schuknecht et al. (2010); Caceres et al. (2010); Gibson et al. (2012); Aizenman & Hutchinson (2012); Beirne & Fratzscher (2012); Caporale & Girardi (2013). There is of course a vast literature on the spreads in the government bond markets in general. See, for example, the classic Eaton et al. (1986), and Eichengreen & Mody (2000). Much of this literature has been influenced by the debt problems of emerging economies. See, for example, Edwards (1984), Edwards (1986), and Min (1999).

[5] We also experimented with the government deficit-to-GDP ratio. But this variable does not have a significant effect in any of the regressions we estimated.

rate, the more difficult it is to raise tax revenues. As a result, a decline of economic growth will increase the incentive of the government to default, raising the default risk and the spread.

We specify the econometric equation in a non-linear form in the debt ratio. The reason comes from the fact that every decision to default is a discontinuous one, and leads to high potential losses. Thus, as the debt-to-GDP ratio increases, investors realize that they come closer to the default decision, making them more sensitive to a given increase in the debt-to-GDP ratio (Giavazzi & Pagano 1996). Equation 1 is specified as:

$$I_{it} = \alpha + z * CA_{it} + \gamma_1 * Debt_{it} + \mu * REE_{it} + \delta * Growth_{it} + \gamma_2 * (Debt_{it})^2 + \alpha_i + \beta_t + \varepsilon_{it}$$

where

• I_{it} is the interest rate spread over German Bunds, of country i in period t,

• CA_{it} is the accumulated current account-to-GDP ratio of country i in period t,

• $Debt_{it}$ is either the government debt-to-GDP ratio or the fiscal space of country i in period t,

• REE_{it} is the real effective exchange rate of country i in period t,

• $Growth_{it}$ is GDP growth rate of country i in period t, and

• α is the constant term.

• α_i is country i's fixed effect. This variable measures the idiosyncrasies of a country that affect its spread and that are not time-dependent. For example, the efficiency of the tax system, the quality of the governance, and many other variables that are country-specific are captured by the fixed effect.

• β_t is the time dummy variable. This measures the time effects that are unrelated to the fundamentals of the model or (by definition) to the fixed effects. If significant, it shows that the spreads move in time, unrelated to the fundamentals driving the yields. We interpret this time dummy as reflecting market sentiments at a point in time.

The results of estimating this equation are shown in Table 2. We observe that the debt-to-GDP ratio has the expected sign and is statistically significant. The same can be said about growth. The accumulated current account and the real effective exchange rate have the expected sign, but are not significant. The time dummies have a jointly significant effect on the spreads.

We plot the time effects obtained from the estimated equation (1) in Figure 8. We have split countries into core (Austria, Belgium, Finland, France, Luxembourg, and the Netherlands) and periphery (Greece, Ireland, Italy, Portugal, and Spain) ones. We find very strong time dummies for the countries in the periphery. This suggests that especially the periphery experienced "departures" in the spreads – that is, an increase in the spreads during 2010-12 – that cannot be accounted for by fundamental developments, in particular by the changes in the debt-to-GDP ratios. Similarly, from 2012Q3 the spreads declined significantly. This decline cannot be associated with changes in fundamentals. They are again due to changing market sentiments, this time positive ones. This change in market sentiments coincides exactly with the announcement of OMT by the ECB.

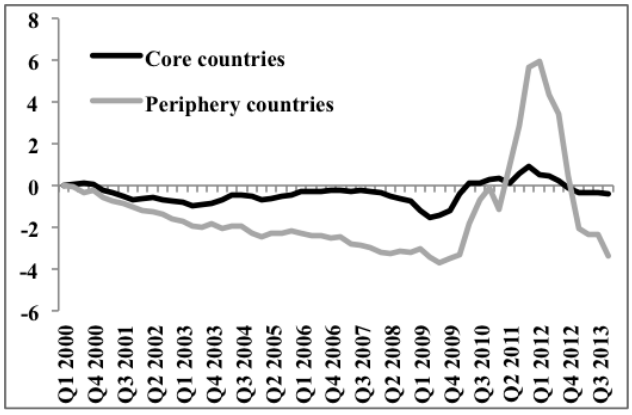
These results suggest that since 2010 the markets were first gripped by negative sentiments and tended to exaggerate the default risks of individual countries and pushed the spreads way above the fundamental risks. Since the announcement of OMT, the reverse has happened. The spreads went down spectacularly, mostly driven by positive market sentiments unrelated to the improvements (if any) in the fundamentals.

Table 2
Spreads over German Bunds, 2001Q1-2013Q4. Regression coefficients and robust standard errors (clustered by country).

	b (s.e.)	
Debt/GDP ratio (%)	-0.1202	***
	(0.0304)	
Debt/GDP ratio squared	0.0009	***
	(0.0002)	
Accumulated current account/GDP ratio (%)	-0.0048	
	(0.0034)	
Real effective exchange rate	0.0554	
	(0.0332)	
Growth rate (%)	-0.1851	**
	(0.0659)	
Country fixed effects	Controlled	
Time fixed effects (quarterly)	Controlled	
Number of observations	560	
Number of countries	10	
R-squared	0.8601	

*Notes: * p < 0.1, ** p < 0.05, *** p < 0.01*

Figure 8. Time components of spreads in the core and the periphery of the Eurozone (2001Q1-2013Q4), estimated from Equation 1.



In order to find out the relative importance of the fundamental variables and the market sentiments (as measured by the time dummies) in influencing the spreads, we computed the quantitative importance of these two factors in explaining the predicted spreads in the model. We analyze two periods. The first one goes from 2008Q1 to 2012Q2. This is the period of the buildup of the sovereign debt crisis. The second period goes from 2012Q3 to 2013Q4. It is the period following the OMT announcement that triggered the decline in the spreads. We show the results in Figures 9 (first period) and 10 (second period).

Concentrating on Figure 9, we find that the largest part of the surge in the spreads during 2008-12 is due to negative market sentiments that were unrelated to the fundamentals (the time dummies). Nevertheless, the fundamentals play some role in explaining the surge in the spreads in the case of Greece, and to a lesser extent in Portugal.

Figure 9. Contribution of fundamentals and of time dummies in predicted change in spreads (2008Q1-2012Q2), estimated from Equation 1.

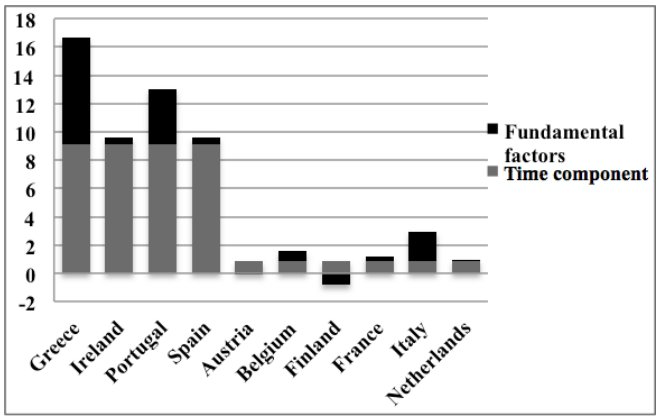
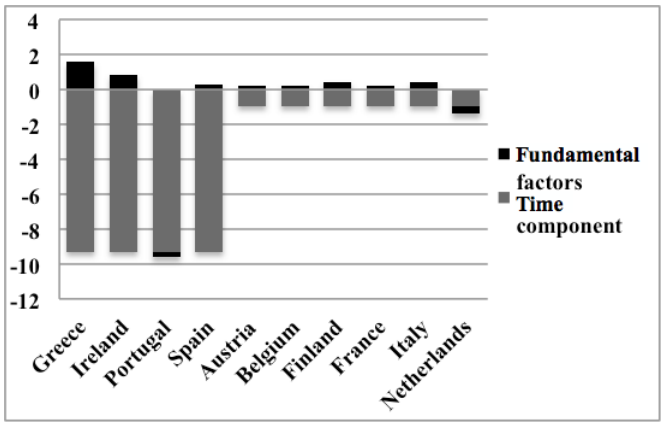


Figure 10. Contribution of fundamentals and time dummies in predicted change in spreads (2012Q1-2013Q4), estimated from Equation 1.



Things are very different during the second, post-OMT period (Figure 10). We find that the sharp decline of the spreads since OMT is totally dissociated from changes in fundamentals. The latter play no role at all in explaining this decline in the spreads. This result strongly suggests that the ECB's OMT announcement was quite effective in turning around market sentiments. These became very positive and corrected for the excessive pessimism that existed before the announcement.[6] These results also suggest that the view that countries can be pushed into bad equilibria in a self-fulfilling way is the right one. This view provides the major justification for a role of the central bank as lender of last resort. It is particularly worrisome that this role is being questioned by the German Constitutional Court's ruling of February 2014, and that this ruling is based on a theory that is rejected by the data.

The pain in Spain revisited

De Grauwe (2011) compared Spain, a member of the Eurozone, and the UK, a stand-alone country. Following the Greek sovereign debt crisis in 2010, Spain was hit by panic in the government bond market, which led to massive dumping of Spanish government bonds, fast increases in the Spanish government bond yields, and a liquidity crisis, forcing the Spanish government to institute an intense austerity programme. Although the UK faced similarly unfavourable fundamentals (a banking crisis, deep recession, exploding government debt) it was spared from the panic and the ensuing liquidity crisis and sky-high interest rates. The difference between Spain and the UK was explained by the fact that Spain did not enjoy a liquidity backstop from the central bank, while the UK government could count on the Bank of England to provide liquidity in times of crisis. De Grauwe (2011) concluded that what Spain (and other Eurozone countries) needed was a liquidity backstop provided by the European Central Bank.

Figure 11 shows the evolution of the 10-year government bond yields in Spain and the UK. The most remarkable phenomenon is first, the dramatic increase of the Spanish government bond yield at the start of the sovereign debt crisis in 2010 and second, the equally dramatic decline of this yield from the middle of 2012. Today, in 2014, the yields of the Spanish and UK government bonds are more or less equal, very much like before the sovereign debt crisis. This remarkable turnaround in the Spanish government bond yields appears even more remarkable when one observed the evolution of the government debt-to-GDP ratios in the two countries. In Figure 12 we show these debt ratios. We observe that

[6] Given the fact that the time dummies have reached negative territory in 2013, one may raise the question of whether the market has become too optimistic about the periphery, in a similar way as it was prior to the start of the crisis. During that period the time dummies were negative, suggesting that according to the fundamentals the spreads of the periphery countries should have been higher. Optimism (euphoria), however, prevailed then and prevented the markets from seeing the risks. Our results suggest that the same may be happening since 2013.

Figure 11. 10 year government bond rates, Spain and the UK

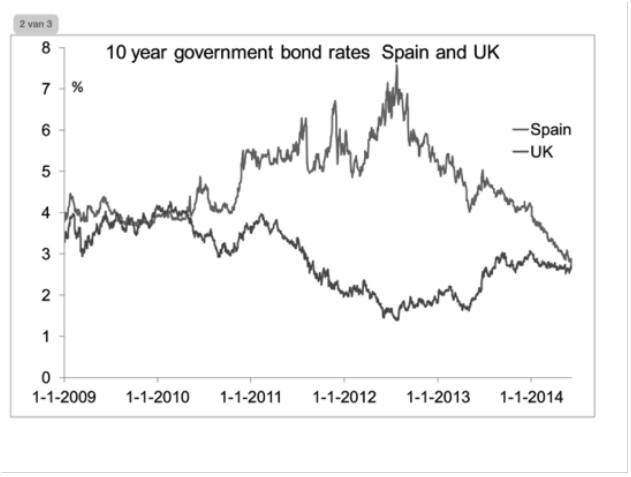
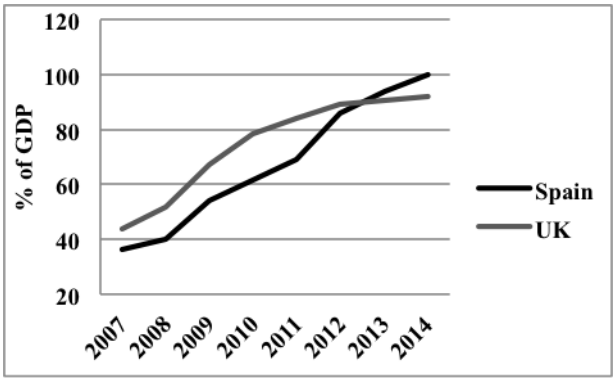


Figure 12. Government debt-to-GDP ratio in Spain and the UK, 2007-2014.



Source: Eurostat and European Commission, Spring Forecast, 2014.

in 2010, at the start of the sovereign debt crisis, the Spanish government debt ratio was significantly lower than the UK one. Since then, however, the Spanish debt ratio increased much faster than the UK debt ratio and exceeds now, in 2014, 100 % of GDP, almost 10 percentage points above the UK debt ratio. The latter appears to have stabilized while the Spanish debt ratio is still on an upward sloping path.

Thus, despite this unfavourable development in the most important fundamental explaining the yields, the latter declined dramatically. The empirical evidence of the previous section allows us to understand this paradox. The 2012 announcement of the ECB to perform the role of lender of last resort in the government bond markets took the fear factor out of the market and allowed the yields in the Spanish (and other) government bond markets to decline without fundamentals to show much, if any, improvement.

All this does not mean that the crisis is over. Underlying the dramatic turnaround in the Spanish government bond market are fundamental developments that have weakened the sustainability of the Spanish fiscal position, but that are now discarded by the bond market that have returned to a remarkable euphoria not dissimilar to what was observed before the crisis.

In order to analyse the sustainability of the Spanish (versus the UK) fiscal position, we start from the definition of the government debt constraint. In order to analyse the fundamental debt-to-GDP dynamics, we define:

$$\frac{dB}{dt} = (r - g)B - S$$

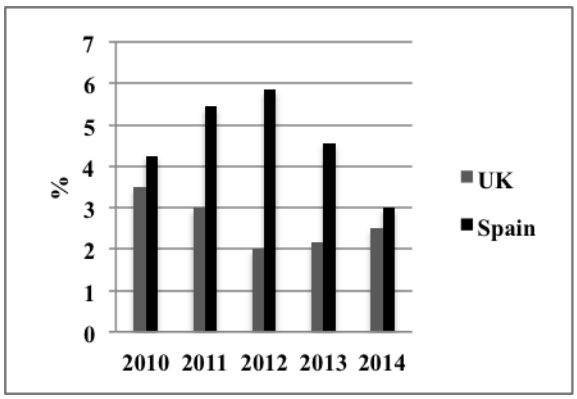
where

B = government debt-to-GDP ratio,
r = nominal interest rate on the government debt,
g = nominal growth rate of the economy,
S = primary budget surplus.

When $r > g$ there is an explosive dynamics that leads to an ever increasing debt ratio. This explosive development can then only be stopped by generating a sufficiently large surplus in the primary budget balance (S). More formally, a necessary condition for maintaining solvency is that B be stabilized, that is $dB/dt=0$, *or* $S=(r-g)B$.

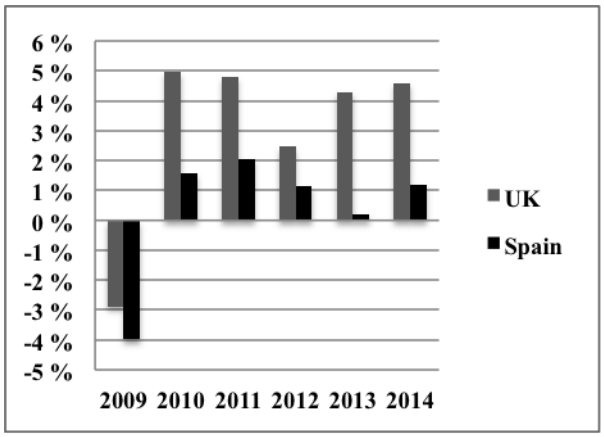
We now compare the evolution of r, g, and S in Spain and the UK. We first concentrate on r and g, in Figures 13 and 14, since 2010 (the start of the crisis). Figure 13 shows how since the crisis the Spanish government yields were systematically higher than the UK ones. In 2014 the Spanish yield tended to converge again with the UK yield. The nominal growth rate (g, which is the sum of the real growth rate and inflation) evolved in a very different manner in the two countries. We see that over the whole period, the nominal growth rate in the UK was significantly higher than in Spain. Thus in the UK, a stand-alone country, the adjustment mechanism included a large currency depreciation that led to a significantly higher nominal growth rate than in Spain, where currency depreciation was not possible.

Figure 13. 10-year government bond yields.



In Figure 15, we show r - g. The contrast between the UK and Spain is very strong. In the UK, r - g remained negative implying that the UK did not require to generate a positive primary balance to reduce the debt-to-GDP ratio. In Spain however, this difference was negative throughout the period. Thus Spain, as a member of a monetary union, was caught

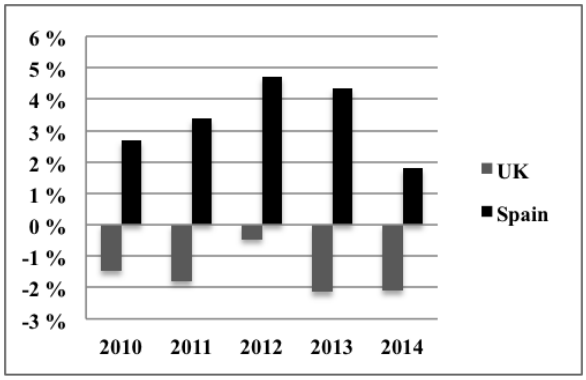
Figure 14. Nominal GDP growth in UK and Spain, 2009-2014.



Source: Eurostat and European Commission, Spring Forecast, 2014.

by a dynamic instability of its debt-to-GDP ratio that it could only counter by generating a positive primary balance using intense austerity measures. From Figure 15 it can be seen that the need to apply austerity (a positive S) to stabilize the debt-to-GDP ratio was much higher in Spain than it was in the UK. Even in 2014, when the Spanish interest rate had declined significantly thanks to the ECB's OMT programme, Spain had to generate 4 percent of GDP more austerity to stabilize the debt than the UK did (see Table 3). This in a way can be said to be the price Spain paid for being in a monetary union.

Figure 15. Nominal interest rate - nominal growth rate.



Source: Eurostat and European Commission, Spring Forecast, 2014

Table 3
Primary surplus needed to stabilize debt (as % of GDP).

	2011	2013	2014
United Kingdom	-1.22	-1.94	-2.00
Spain	2.30	4.34	1.84

Neither country managed to generate the condition for stabilizing their debt-to-GDP ratios in 2014, but the UK comes close to it, as can be seen from Tables 3 and 4. In 2014, the UK is forecasted to have a primary deficit of 3.5 percent (Table 4), which is too high to stabilize the debt-to-GDP ratio but comes close to it. This can also be seen in Figure 12, where we observe that the UK is close to having stabilized its debt-to-GDP ratio. This is not the case in Spain. In 2014, Spain needs to achieve a primary surplus of 1.8 percent to stabilize its debt-to-GDP ratio (see Table 3), while it is primary balance shows a deficit of 2.8 percent (Table 4), a gap of 4.6 percentage points. Thus, if Spain wishes to stabilize its debt-to-GDP ratio in 2014, it would have to institute an additional austerity effort of 4.6 percent, a heroic effort.

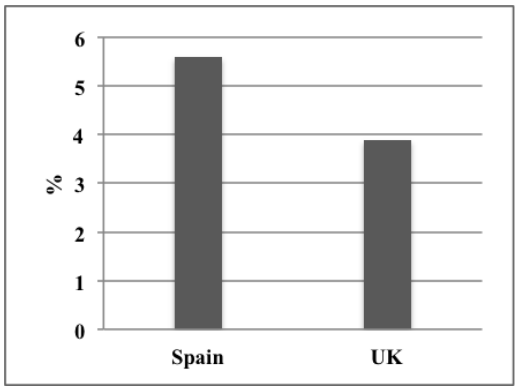
Table 4
Observed primary balance (as % of GDP).

	2011	2013	2014
United Kingdom	-5.0	-4.5	-3.5
Spain	-7.6	-4.2	-2.8

Source: IMF, Fiscal Observer, April, 2014

It cannot be said that Spain did not try to bring down its debt-to-GDP ratio. In fact, it tried harder than the UK did. This can be seen by comparing the evolution of the cyclically adjusted primary balance, generally interpreted as measuring the discretionary changes in the budget balance, since the start of the crisis (Figure 16). Figure 16 shows the increase of the cyclically adjusted primary balance in Spain and the UK. It measures the intensity of austerity measures over that period. It can be seen that Spain instituted more intense austerity measures than the UK did.

Figure 16. Change in cyclically adjusted primary balance during 2010-14.



Source: IMF Fiscal Monitor, April 2014.

Completing the monetary union with a political union

Even if the OMT programme set up by the ECB can be salvaged from the onslaught of the German Constitutional Court, the institutional setup that has been created in the Eurozone is not sustainable and will have to be completed with

steps towards a fiscal union. The latter implies a degree of political union that goes much further than what has been achieved so far. Let us develop these points further.

The present institutional setup of the Eurozone is characterized by the fact that a number of bureaucratic institutions have acquired significant responsibilities without political accountability. Thus there has been a transfer of sovereignty without a concomitant democratic legitimacy.

The ECB and political union

The European Central Bank's power has increased significantly as a result of the sovereign debt crisis. With the announcement of the OMT programme and given the success of this programme, it has become clear (at least outside Germany) that the ECB is the ultimate guarantor of the sovereign debt in the Eurozone. In this sense the ECB has become a central bank like the Federal Reserve and the Bank of England. There is one important difference though. In the US and the UK there is a primacy of the government over the central bank, that is, in times of crisis it is the government that will force the central bank to provide liquidity. When the sovereign in these countries is threatened, it will prevail over the central bank. This is not the case in the Eurozone. In the latter, the governments depend on the goodwill of the ECB to provide liquidity. They have no power over the ECB and cannot force that institution, even in times of crisis, to provide liquidity. Thus, in the Eurozone today there is a primacy of the central bank over the sovereigns.

This is a model that cannot be sustained in democratic societies. The ECB consists of unelected officials, while governments are populated by elected officials. It is inconceivable that these governments will accept to be pushed into insolvency while unelected officials in Frankfurt have the power to prevent this, but refuse to use this power. When tested, such a model of the governance of the Eurozone will collapse and rightly so.

Thus we arrive at the following conundrum. The role of the ECB as a lender of last resort is essential to keep the Eurozone afloat. Yet at the same time, the present governance of this crucial lender of last resort function is unsustainable because its use depends on the goodwill of the ECB, thereby making democratically legitimate governments' fate depend on the judgment of unelected officials. In order to sustain this role of the central bank as a lender of last resort, the ECB has to be made subordinate to the political power of elected officials, as it is in modern democracies such as the US, Sweden, and the UK. This can only be achieved by creating a Eurozone government that is backed by a European parliament and that has primacy over the central bank.

The European Commission and political union

We face a similar problem with the European Commission. The latter has seen its responsibilities increase. This has been motivated by the desire of the creditor nations to impose budgetary and macroeconomic discipline on the debtor nations. As a result, the Stability and Growth Pact has been strengthened, and the European Commission has been entrusted with the responsibility of monitoring macroeconomic imbalances and to force debtor nations to change their macroeconomic policies.[7]

The idea that macroeconomic imbalances should be monitored and controlled is a good one. As we have argued, the emergence of such imbalances is at the heart of the emergence of the Eurocrisis. Yet the way this idea has been implemented is unsustainable in the long run. The new responsibilities of the European Commission create a similar problem of democratic legitimacy as the one observed with the ECB. The European Commission can now force countries to raise taxes and reduce spending without, however, having to bear the political cost of these decisions. These costs are borne by national governments. This is a model that cannot work. Governments that face the political costs of spending and taxation will not continue to accept the decisions of unelected officials who do not face the cost of the decisions they try to impose on these governments. Sooner or later governments will go on strike, like the German and French governments did in 2003-04. Only the small countries (such as Portugal, Belgium, Ireland) will have to live with this governance. Large countries will not.

Bureaucratic versus political integration

Increasingly, European integration has taken the form of bureaucratic integration as a substitute for political integration. This process has started as soon as the European political elite became aware that further political integration would be very difficult. This process has become even stronger since the start of the sovereign debt crisis in the Eurozone. The outcome of this crisis has been that the European Commission and the European Central Bank have seen their powers increase significantly, without any increase in their accountability. More and more, these two institutions impose decisions that affect millions of people's welfare, but the people who are affected by these decisions do not have the democratic means to express their disagreements.

Thus, the integration in Europe is increasingly seen to lack democratic legitimacy. Political scientists make a distinction between output and input legitimacy. Output legitimacy means that a particular decision is seen to be legitimate if it leads to an increase in general welfare. In this view, a government that is technocratic can still be legitimate if it is perceived to improve welfare. This view is very much influenced by the Platonic view of the perfect State. This is a State that is run by benevolent philosophers who know better than the population what is good for them and act to increase the country's welfare. Input legitimacy means that political decisions, whatever their outcome, must be based on a process that involves the people, through elections that allow the people to sack those who have made bad decisions.

Much of the integration process in Europe has been based on the idea of output legitimacy. The weak part of that kind of legitimacy becomes visible when the population is not convinced that what the philosophers at the top have decided

[7] In principle the macroeconomic imbalance procedure should work symmetrically. It is, however, very unlikely to work that way.

has improved welfare. That is the situation today in Europe. In many countries there is a perception that the decisions taken in Brussels and Frankfurt have harmed their welfare. It should therefore not be surprising that many people reject the notion of output legitimacy and instead want input legitimacy, that is, a procedure by which they can sanction those that have taken harmful decisions. Since they can only do this at the national level, they reject the European level.

Towards a fiscal union

The only governance that can be sustained in the Eurozone is one where a Eurozone government backed by a European parliament acquires the power to tax and to spend. This will then also be a government that will prevail over the central bank in times of crisis and not the other way around. Put differently, the Eurozone can only be sustained if it is embedded in a fiscal and political union.

A fiscal union involves two dimensions. First, it involves a (partial) consolidation of national government debts. Such a consolidation creates a common fiscal authority that can issue debt in a currency under the control of that authority. This protects the member states from being forced into default by financial markets. It also protects the monetary union from the centrifugal forces that financial markets can exert on the union. Finally, by creating a common fiscal authority (a government) we can create a governance structure in which the (European) sovereign prevails over the central bank rather than the other way around.

Second, by (partially) centralizing national government budgets into one central budget, a mechanism of automatic transfers can be organized. Such a mechanism works as an insurance, transferring resources to the country hit by a negative economic shock. Although moral hazard risks impose limits to such an insurance, it remains true that such a mechanism is essential for the survival of a monetary union, like it is for the survival of a nation state. Without a minimum level of solidarity (that is what insurance is) no union can survive.

While all this is well known, it is equally clear that the willingness to move in the direction of a fiscal union in today's Europe is non-existent. This fact will continue to make the Eurozone a fragile institution, the future of which remains in doubt. The Eurocrisis is not over.

The unwillingness to create a political union has also led to a continuing temptation to resort to technical solutions to the problem. Thus, there has been a proliferation of technical schemes to introduce Eurobonds (see Delpla & von Weizsäcker 2010; De Grauwe & Moesen 2009) and insurance mechanisms against asymmetric shocks (Von Hagen & Hammond 1998; Enderlein et al. 2013). These are interesting intellectual exercises to which one of the present authors has also contributed. They do not solve the essential problem, which is that there is no future for the euro except in a political union. In fact, they generate a fiction that technical solutions (and therefore also bureaucratic integration) can be a substitute to political unification. As a result, they comfort policymakers in their decision to set aside all further attempts towards a political union.

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