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The legacy of the Eurozone crisis and how to overcome it *



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ABSTRACT

I 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. Second, I 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.

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1. 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 2016. In official circles the view prevails that the Eurocrisis is over 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 I dispute this view. I 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, I will argue that the ill-designed of fiscal policies is at the core of the continuing low growth performance of the Eurozone. Third, I 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.

2. New governance of Eurozone: creditor nations rule supreme

There can be little doubt that the ECB saved the Eurozone, at least for the time being when in 2012 it announced its OMT program. The latter 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 countries that have accumulated current account deficits in the past, while the Northern Eurozone countries¹ 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 Fig. 1).² This has forced the Southern countries

[★] I am grateful for the comments of an anonymous referee that added value to this paper.

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

² The numbers in Fig. 1 show the total cumulative current accounts. Ideally one would also like to know the intra-Eurozone current account positions and the net debt and creditor positions within the Euro area. We did not include these data as they are difficult to find in a consistent manner over a period of more than 20 years (as in Fig. 1).

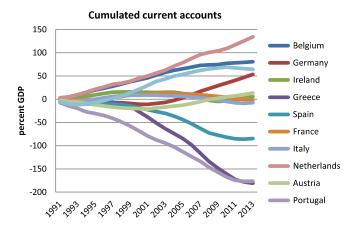


Fig. 1. Cumulated current accounts. Source: European Commission, Ameco.

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 programs pushing these countries into quick and deep spending cuts and intense recessions.

Put differently, the creditor nations 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 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 crises, they should face a significant part in the cost of adjustment, mainly by accepting losses on their loan portfolios.

Another view could have prevailed and guided the conduct of macroeconomic policies in the Eurozone. This is the view that the responsibilities for the current account imbalances are shared between the creditor and debtor nations. The debtor nations took on too much debt and are responsible for that. The creditor nations extended too much credit and are thus equally responsible for the imbalances. For every foolish debtor there must be a foolish creditor. This symmetric view, however, 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 programs in the South, while in the North no compensating stimulus was imposed.

Relative unit labour costs Eurozone: debtor nations

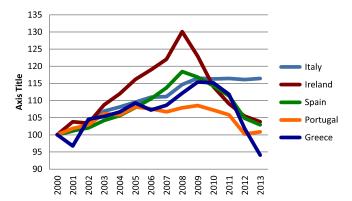


Fig. 2. Relative unit labour costs Eurozone: debtor nations. Source: European Commission, Ameco.

Relative unit labour costs Eurozone: creditor nations

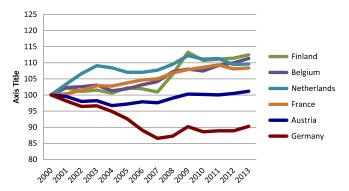


Fig. 3. Relative unit labour costs Eurozone: creditor nations. Source: European Commission, Ameco.

In Fig. 2, we show some evidence about the nature of this asymmetry. The figure shows the evolution of the relative unit labor costs³ of the debtor countries. 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 of 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 Fig. 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 these 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. Another way to put this is as follows. Debtor countries were forced to do an internal devaluation that had as an effect to reduce wages and prices. This was not offset by internal revaluations in the creditor countries that would have raised wages and prices in these countries. As a result, of this asymmetric adjustment mechanism the Eurozone as a whole was subjected to a deflationary bias. This is made clear in Figs. 4, 5 and 6.

In Fig. 4 we compare the evolution of real GDP in the Eurozone with real GDP in the US and in the EU-countries not belonging to the Eurozone (EU10). The difference is striking. Prior to the financial crisis the Eurozone real GDP was on a slower growth path than in the US and in EU10. Since the financial crisis of 2008 the divergence has increased even further. Real GDP in the Eurozone stagnated and in 2014 was even lower than in 2008. In the US and EU-10 one observes (after the dip of 2009) a relatively strong recovery. Admittedly, this recovery is below the potential growth path of these countries but surely it has been much more pronounced than in the Eurozone where stagnation prevailed.

Fig. 5 shows the evolution of unemployment in the same group of countries. We observe the same phenomenon. A recovery in the US and EU-10 after 2010 shown by the decline in unemployment. This contrasts with the Eurozone where unemployment continued to increase so that in 2014 it was almost twice as high than in EU-10.

Finally Fig. 6 shows the rates of inflation in the Eurozone and the US. We observe that the deflationary dynamics was more intense in the Eurozone than in the US. At the end of 2014 the rate of inflation in the Eurozone dropped below 0%.

3. 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. The most striking feature of this legacy is that despite intense austerity programs that have been triggered since 2010 there is no evidence that these programs have increased the capacity of the governments of the debtor countries to continue to service their debt. In Fig. 7 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 programs that were set in motion after 2010 do not seem to have stopped the explosive growth of the debt ratios. (The possible exception is Ireland). In De Grauwe and Ji (2013) we provide evidence that the austerity programs 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

³ 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.

Real GDP in Eurozone, EU10 and US (prices of 2010) 135 130 125 ndex 2000=100 120 115 110 Eurozone 105 EU10 100 95 90 2000 2002 2004 2006 2008 2010 2012 2014

Fig. 4. Real GDP in Eurozone, EU10 and US (prices of 2010). Source: European Commission, Ameco database.

Southern countries was a "balance sheet recession" in which private agents desperately tried to reduce their debt levels (Krugman, 2010). 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 had as an effect 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.

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.

4. 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 a 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.

Unemployment rate in Eurozone, EU10 and US

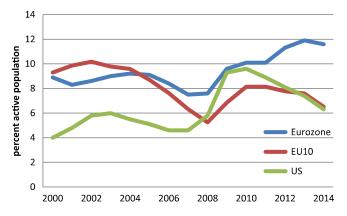


Fig. 5. Unemployment rate in Eurozone, EU10 and US. Source: European Commission, Ameco database.

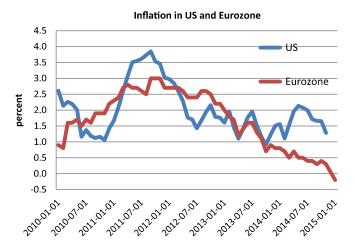


Fig. 6. Inflation in US and Eurozone. Source: European Commission, Ameco database.

4.1. 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 boom-and-bust 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 in Spain, Ireland, Greece the economy started to boom, inflation also picked up in these countries. 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, i.e. it leads to a stronger boom in the booming countries and a stronger recession in the recession countries than if there had been no 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

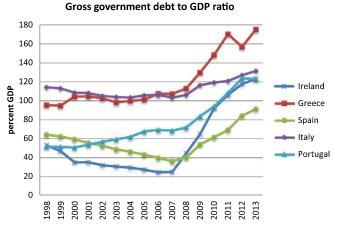


Fig. 7. Gross government debt to GDP ratio. Source: European Commission, AMECO database.

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.

4.2. No stabilizers left in place

When the Eurozone was started 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 in 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 in turn could 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.⁴ 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 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 programs, 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 programs. 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 in a self-fulfilling way degenerated 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) and De Grauwe and 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, i.e. the automatic stabilizers in the government budgets. As a result, some countries were forced into bad equilibria (Corsetti and Dedola, 2011).

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

5. 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 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 "Outright Monetary Transactions" (OMT) program, which promises to buy unlimited amounts of sovereign bonds during crises. The ECB 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 bust dynamics. In Fig. 8 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 program suffers because of continuing vehement criticism. This criticism reached its climax in early 2014 when the German Constitutional Court declared OMT illegal and referred the case to the European Court of Justice (ECJ) with the demand that conditions be imposed on the OMT-program that would make it ineffective and useless. In May 2015 the ECJ ruled that OMT is legal. It is likely that this will lead to a clash between two constitutional courts in the future. The risk is that this clash will undermine the credibility of the OMT program.

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.

⁴ 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)).

Spreads 10-year government bond rates eurozone

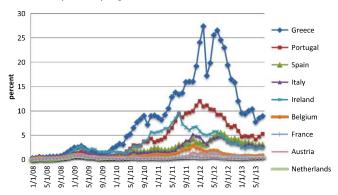


Fig. 8. Spreads 10-year government bond rates Eurozone. Source: Datasource.

Implicit in this argument is the view that markets are efficient (see De Grauwe (2014), and Winkler (2014)). The surging 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 programs aimed at reducing government budget deficits and debts. With its OMT program 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 underlying fundamentals, very much like in the stock markets prices can be gripped by a bubble pushing them far away from 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. It is supported by what happened in the government bond markets. The dramatic decline in the government bond rates of the debtor nations since the OMT-announcement occurred while at the same time the debt to GDP ratios continued to increase significantly (see De Grauwe and Ji (2013) for a more rigorous econometric test).

The deflationary dynamics set in motion by the asymmetric adjustment mechanism analysed in Section 2 led to a negative inflation at the end of 2014 (see Fig. 6). This forced the ECB that commits itself to keeping inflation close to 2% into action. In January 2015 it started a massive government bond-buying program, the so-called QE-program. It was very much influenced by similar programs in the US and the UK that were activated five years earlier.

There can be little doubt that the massive injection of liquidity by the ECB since early 2015 had a positive effect on exports, mainly because it led to a depreciation of the euro vis-à-vis the major currencies (dollar, pound sterling) and boosted the competitiveness of Eurozone exporters to the rest of the world.

At the same time, however, it is becoming increasingly clear that QE alone is insufficient to pull the Eurozone economies out of their lethargic growth. There is a fear that in the next few years economic growth will remain subdued, despite the past and future injections of liquidity (money base) in the system.

None of this should come as a surprise. Economists have warned for a long time that when the economy is in a liquidity trap, i.e. interest rates are close to zero, quantitative easing alone will not be able to stimulate the economy. The reason is that when the interest rates are close to zero, the liquidity that the central bank is creating is not easily filtered into the real economy. Most of it is hoarded because the opportunities to find attractive rates of return are limited. Many financial institutions then prefer to accumulate the extra liquidity created by the ECB without doing much productively with it. There is some part of that liquidity that finds its way into financial markets. This can then produce bubbles in some financial markets. There is, however, not much evidence that this has been empirically important in the Eurozone.

Thus, while QE was and is necessary, it is insufficient. It has to be seconded by fiscal policies, which is where the real problem resides in the Eurozone. Fiscal policies have not been helpful. First, too many countries continued to be kept in the austerity straightjacket. Second, and most importantly, public investment continued to decline as a percent of GDP, also as a result of austerity programs. It is public investment that is key to the recovery in the Eurozone. Unfortunately, public investment is discouraged by a rule that the members of the Eurozone have imposed on themselves, i.e. that public investment cannot be financed by bond issue. It has to be financed by current tax revenues. This constraint prevents public investment from taking off and from sustaining the recovery.

6. Completing the monetary union with political union

In this section I will argue that 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 farther 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.

6.1. 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 program and given the success of this program 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, i.e. 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 (especially if they are large) 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 it has to be made subordinate to the political power of elected officials, as it is in modern democracies such as the US, Sweden, the UK, etc. 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.

6.2. 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.⁵

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 euro-crisis. 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 (Portugal, Belgium, Ireland, etc.) will have to live with this governance. Large countries will not.

6.3. 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 European. 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.

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 population, through elections that allow people to sack those who have made bad decisions.

⁵ In principle the macroeconomic imbalance procedure should work symmetrically. It is, however, very unlikely to work that way. In fact we see already today that the European Commission exerts more pressure on deficit countries than on surplus countries that are handled with a lot of care.

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, 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.

6.4. 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 there are limits to such an insurance that arise from moral hazard risk, 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 of solidarity (that's what insurance is) no union can survive.

While all this is well known, it is equally clear that the willingness today to move in the direction of a fiscal union in Europe today is non-existent. This fact will continue to make the Eurozone a fragile institution, the future of which remains in doubt. The euro crisis 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 and von Weizsäcker (2010), De Grauwe and Moesen (2009) and insurance mechanisms against asymmetric shocks (Von Hagen and 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, however, 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 for 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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