

European Monetary Union

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The introduction of the euro in 1999 is without any doubt one of the great achievements in the European integration process. In one bold stroke, national monetary sovereignty was abolished and transferred to a new European institution, the European Central Bank, that from then on became the guardian of the new currency.

Until the eruption of the sovereign debt crisis there was a general perception that the euro zone was a great success. In 2008 the European Commission issued a report (euro@10; [European Commission, 2008](#)) that was unqualified in its praise about the achievements of the euro zone. Then came the sovereign debt crisis that has led many observers to reevaluate European Monetary Union (EMU). This article discusses its successes and failures, analyzes the fragility of EMU, and identifies two sources of this fragility. Finally, it discusses governance issues and the nature of the political institutions that will be necessary to sustain the European Monetary Union.

[European Central Bank \(ECB\)](#); [European Financial Stability Facility \(EFSF\)](#); [European Stability Mechanism \(ESM\)](#); [euro](#); [housing market](#); [sovereign debt crisis](#); [Stability and Growth Pact](#)

Successes of EMU

The very fact that European countries managed to move into a monetary union using a peaceful process can be seen as an important historical achievement. Most of the monetary unions in history came about as a result of military conquest or forceful political unification. This was not the case in Europe during the 1990s when monetary integration process was set in motion. A massive transfer of monetary sovereignty was successfully organized, leading to the establishment of the European Central Bank, which was given the task to manage a common currency: the euro.

Up until the eruption of the sovereign debt crisis, the successes appeared overwhelmingly strong. The benefits of a common currency, which were analyzed in the theory of optimal currency areas, could not easily be disputed. The use of one currency in the euro zone eliminated the transaction costs that existed prior to union and that arose from the fact that in order to make trade possible between two member countries one national currency had to be exchanged for another. The [EC Commission \(1990\)](#) estimated that the elimination of these transaction costs amounted to approximately half a per cent of GDP.

There can be equally little doubt that the elimination of exchange risk within the euro zone helped to boost internal trade and capital mobility. A lot of research has been done to measure the effect of a monetary union on trade between the members of the union. Following Andy Rose's ground-breaking research ([Rose, 2000](#)), which demonstrated strong positive effects of monetary unions on trade flows, subsequent econometric research has

confirmed that monetary unions in general, and EMU in particular, indeed lead to significant increases in trade. However, the Rose's spectacular results were not replicated in subsequent work (see [Baldwin, 2006](#); [Berger and Nitsch, 2008](#)). The consensus today seems to be that EMU may have added approximately 20 per cent of extra trade within the union; a significant increase that certainly should be added to the successes of the Union.

The institutional setup of the euro zone also contributed to the successes of EMU. By giving the ECB a strong mandate to maintain price stability, and by enshrining the political independence of the ECB in the EU Treaties, the ECB quickly gained credibility as a tough inflation fighter. There can be little doubt that the ECB was very successful in keeping inflation low. From 1999 to 2010 the average inflation rate in the euro zone was 2.2 per cent – not much above the target of 2 per cent that the ECB had set itself as an objective, and certainly lower than the rate of inflation its members experienced during the post-war period until the start of the euro zone. As a result, the euro zone became a centre of price stability.

Behind this apparent success, however, there are deep structural weaknesses that have appeared with full force since the eruption of the sovereign debt crisis. These are discussed in the next section.

Failures of EMU

Two structural weaknesses lie at the heart of the sovereign debt crisis that began in 2009. The first one arises from asymmetric

shocks and the absence of flexible adjustment mechanisms. This is the feature that has been stressed by the Optimal Currency Area (OCA) theory as generating costs of a monetary union (well-known contributions to this theory are [Mundell \(1961\)](#) and [McKinnon \(1963\)](#). For surveys see [Ishiyama \(1975\)](#), [De Grauwe \(1992\)](#) and [Baldwin and Wyplosz \(2006\)](#). See [Eichengreen \(1990\)](#) and [Bayoumi and Eichengreen \(1996\)](#) for empirical implementations). The second structural weakness arises from the fact that the euro is a currency without a country.

Failing adjustment to asymmetric shocks

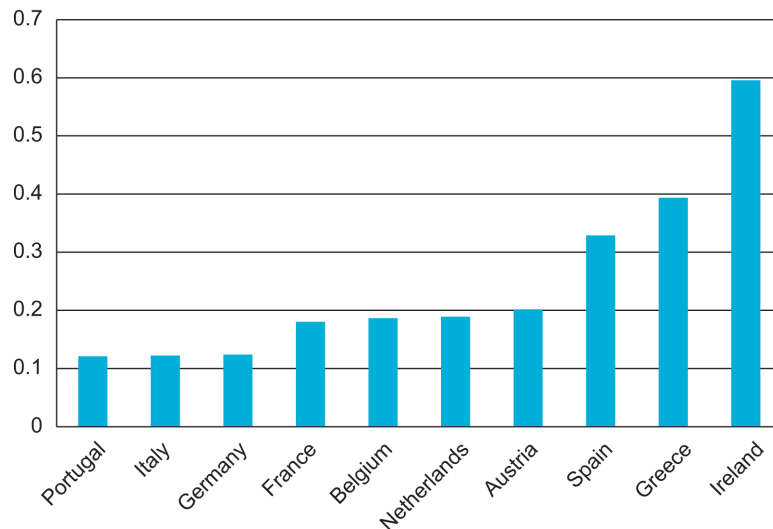
In EMU, monetary policies are centralized, and therefore cease to be a source of asymmetric shocks. The member countries of EMU, however, continue to exercise considerable sovereignty in several economic areas. The most important one is in the budgetary field. The spending and taxing powers in EMU continue to be vested in the hands of national authorities. Today, in most euro zone countries, spending and taxation by the national authorities amount to close to 50 per cent of GDP. The spending and taxing powers of the European authorities represent barely 1 per cent of GDP. This situation has not changed since the start of monetary union in 1999. By changing taxes and spending, the authorities of an individual country can create large asymmetric shocks. By their very nature these shocks are well contained within national borders. For example, when the authorities of a country increase taxes on wage income, this only affects labour in that country and will influence spending and wage levels in that country. As a result, asymmetric

shocks are created that lead to necessary adjustments later. There are other aspects of the existence of nation states that can be a source of asymmetric disturbances. Many economic institutions are national. Wage bargaining systems, for example, differ widely between countries, creating the possibility of asymmetric disturbances. In addition, differences in legal systems and customs generate significant differences in the workings of financial markets. For example, regulations about the conditions under which mortgages are granted by banks differ from one country to the other in the euro zone. These differences can lead to very divergent movements of housing prices in member countries. There are many more such examples of these asymmetric disturbances.

The effect of these national idiosyncrasies can be that countries experience very different economic conditions. This is illustrated in [Figure 1](#), which shows the cumulative growth rates of GDP prior to the financial crisis in the euro zone. We observe that indeed the differences in national growth rates in the euro zone were substantial. Some countries experienced booming economic conditions during 1999–2007 (Spain, Greece, Ireland); others experienced very slow growth (Portugal, Italy, Germany). There can be little doubt that part of these differences is attributable to the different national economic policies and institutions.

Figure 1

Cumulative growth of GDP 1999–2007.

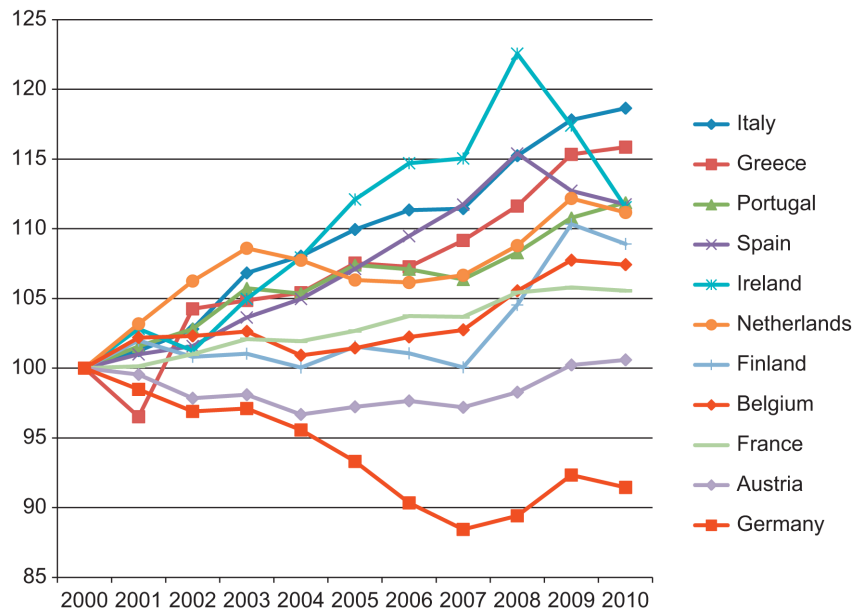


Source: European Commission; AMECO databank.

These diverging trends in economic activity can contribute to another important phenomenon: the emergence of large divergences in competitive positions of members of a monetary union. This is exactly what happened in the euro zone. [Figure 2](#) illustrates this by presenting the trends in the relative unit labour costs in the euro zone during 2000–2010. The relative unit labour cost is defined as the unit labour cost of one country (say Germany) relative to the average unit labour costs in the other member countries of the euro zone. When the relative unit labour cost declines, as in the case of Germany, one can say that Germany has improved its competitive position during the period 2000–2010. Conversely when the relative unit labour costs increase, as in the cases of Ireland, Italy, and Greece, among others, these countries lost competitiveness during 2000–2010.

Figure 2

Relative unit labour costs for euro zone countries (2000=100).



Source: European Commission, AMECO databank.

Note that the unit labour costs are defined as the labour costs corrected for labour productivity. The unit labour cost is defined as: $ULC = W/(Q/L)$, where W is the wage rate, Q is the value of output and L is the amount of labour used in production. Q/L is the average labour productivity. Note that the formula can also be rewritten as follows: $ULC = WL/Q$. This expression makes clear what unit labour costs means: it is the wage cost embedded in one euro (dollar) of output. It follows that unit labour costs can increase for two reasons. They increase when wages increase or when labour productivity declines (or, in relative terms fails to keep pace with competitors). Thus it appears that countries like Italy, Spain, Portugal and Ireland have lost significant competitiveness since 2000 because wages in these countries increased faster than labour productivity. This leads to serious adjustment problems. These countries have to reduce their wage levels relative to the other countries of the euro zone (if they cannot raise productivity). This is likely to be a slow and painful

process, mainly because other adjustment mechanisms such as labour mobility and wage flexibility function poorly in most of these countries (see [Krugman \(1993\)](#) and De Grauwe and Vanhaverbeke (1990)). In the past, when these countries were not in a monetary union, they would have been able to devalue their currencies, thereby making it possible to restore their competitiveness in a single stroke, albeit only by risking higher inflation.

The euro: a currency without a country

The second major structural weakness of EMU is that it created a currency without a country, i.e. without a government with the full powers of a government to back up the value of the currency. This feature has sometimes been hailed as revolutionary. It turns out, however, that it is a profound structural weakness that creates great fragility in the euro zone and lies at the heart of the sovereign debt crisis. Let us analyze why this is so.

When entering monetary union, member countries lose their capacity to issue debt in a currency over which they have full control. As a result, a loss of confidence of investors can, in a self-fulfilling way, drive the country into default ([Kopf, 2011](#)). The reason for this can be described as follows. Suppose that investors fear a default by, let's say, the Spanish government. They sell Spanish government bonds, thereby raising the interest rate. The investors who have acquired euros are likely to decide to invest these euros elsewhere, perhaps in German government bonds. As a result, the euros leave the Spanish banking system. Thus the total amount of liquidity (money supply) in Spain

shrinks. The Spanish government experiences a liquidity crisis, i.e. it cannot obtain funds to roll over its debt at reasonable interest rates. In addition, the Spanish government cannot force the Bank of Spain to buy government debt. The ECB can provide all the liquidity in the world, but the Spanish government does not control that institution.

This is not the case for countries capable of issuing debt in their own currency. Let's trace what would happen if investors were to fear that the UK government might be defaulting on its debt. In that case, they would sell their UK government bonds, driving up the interest rate. After selling these bonds, these investors would have pounds that they would most probably want to get rid of by selling them in the foreign exchange market. The price of sterling would drop until somebody else would be willing to buy them. The effect of this mechanism is that the pounds would remain bottled up in the UK money market to be invested in UK assets. Put differently, the UK money stock would remain unchanged. Part of that stock of money would probably be reinvested in UK government securities. But even if that were not the case, and the UK government was unable to find the funds to roll over its debt at reasonable interest rates, it would certainly force the Bank of England to buy up the government securities. Thus the UK government is assured of the liquidity needed to fund its debt. This means that investors cannot precipitate a liquidity crisis in the UK that could, ultimately, push the UK government into default. There is a superior force of last resort, namely the Bank of England.

This different mechanism explains why the Spanish government has been obliged to pay up to 200 basis points more on its ten-

year bonds than the UK government since 2010, despite the fact that its government debt and deficit were significantly lower than the UK ones.

Because of the liquidity flows triggered by changing market sentiments, member countries of a monetary union become vulnerable to these market sentiments. These can lead to 'sudden stops' in the funding of government debt ([Calvo, 1988](#)), setting in motion a devilish interaction between liquidity and solvency crises. This is because the liquidity crisis raises the interest rate, which in turn leads to a solvency crisis. This problem is not unique to members of a monetary union. It has been found to be very important in emerging economies that cannot issue debt in their own currencies (see [Eichengreen et al. \(2005\)](#), in which these problems are analyzed in great detail). There are further important implications of the increased vulnerability of member countries of a monetary union. In [De Grauwe \(2011\)](#) these implications are developed in greater detail; see also [Wolf, 2011](#)). One of these implications is that member countries of a monetary union lose much of their capacity to apply counter-cyclical budgetary policies. When, during a recession, budget deficits increase, this risks creating a loss of confidence of investors in the capacity of the sovereign to service the debt. This has the effect of raising the interest rate, making the recession worse and leading to even higher budget deficits. As a result, countries in a monetary union can be forced into a bad equilibrium, characterized by deflation, high interest rates, high budget deficits and a banking crisis (see [De Grauwe \(2011\)](#) for a more formal analysis).

What kind of governance?

The previous discussion points towards the existence of a coordination failure in EMU. Financial markets can drive member countries into a bad equilibrium that is the result of a self-fulfilling mechanism. This coordination failure can in principle be solved by collective action aimed at steering countries towards a good equilibrium, but as the difficulties in dealing with the Greek crises of 2010 and 2011 showed, taking collective action is always politically difficult.

In addition to this coordination failure, there is another important feature of the euro zone that requires collective action. This is that the euro zone creates externalities, especially through contagion. When one country is pushed into a bad equilibrium, this affects all the other countries, mainly because of the intense degree of financial integration. As a result, a default risk in one country can lead to a default risk of sovereigns and banks in other countries. As with all externalities, government action must be resolute in internalizing these. Collective action and internalization can be pursued at two levels. One is at the level of the central banks; the other at the level of government budgets.

Liquidity crises are avoided in standalone countries that issue debt in their own currencies, mainly because the central bank can be forced to provide all the necessary liquidity to the sovereign. This outcome can also be achieved in a monetary union if the common central bank is willing to buy the different sovereigns' debt. In fact, this is what happened in the euro zone during the debt crisis. The ECB bought government bonds of distressed

member countries, either directly or indirectly by the fact that it accepted these bonds as collateral in its support of the banks from the same distressed countries. In doing so, the ECB rechannelled liquidity to countries hit by a liquidity crisis, and prevented the centrifugal forces created by financial markets from breaking up the euro zone. It was the right policy for a central bank whose *raison d'être* it is to preserve the monetary union. Yet the ECB has been severely criticized for saving the euro zone this way. The main reason for this criticism is that these liquidity provisions have potential fiscal policy consequences. For example, when the ECB buys Greek and Portuguese government bonds in order to rechannel liquidity to Greece and Portugal, it exposes itself to the risk of future losses. In doing so it commits euro zone taxpayers to foot the bill in the future, without having asked their permission. This criticism has been powerful enough to convince the ECB that it should not be involved in such liquidity operations, and that liquidity support must instead be done by other institutions, in particular a European Monetary Fund.

An important step was taken in May 2010 when the European Financial Stability Facility (EFSF) was instituted. The latter will be transformed into a permanent fund, the European Stabilization Mechanism (ESM), which will obtain funding from the participating countries and will provide loans to countries in need of liquidity assistance. This makes it possible to make the fiscal commitments of each country explicit. Thus a European Monetary Fund will be in existence, as was first proposed by [Gros and Mayer \(2010\)](#).

Although an important step forward, the EFSF, as well as the

future ESM, suffer from problems that undermine their effectiveness. The most important one is that neither will be an autonomous institution in the way that the IMF is. Each country keeps its veto power for every new financial assistance program. This feature risks making these institutions less than fully effective. As a result, the credibility of the institution will be undermined, as nobody knows whether and under what conditions the EFSF (ESM) will be willing to provide credit. The only way to solve this problem is to transform the EFSF (ESM) into a true monetary fund in which decisions are taken by qualified majority, as is the case in other European institutions (e.g. the Council of Ministers). This, of course, implies that there will be a willingness to transfer sovereignty to the monetary fund.

Collective action and internalization can also be taken at the budgetary level. Ideally, a budgetary union is the instrument of collective action and internalization. By consolidating (centralizing) national government budgets into one central budget a mechanism of automatic transfers can be organized. Such a mechanism works as an insurance mechanism transferring resources to the country hit by a negative economic shock. In addition, such a consolidation creates a common fiscal authority that can issue debt in a currency under the control of that authority. In so doing, it 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. The need to create a budgetary union together with a monetary union has long been recognized by economists (McDougall Report, 1977; [Sachs and Sala-i-Martin, 1989](#); [Mélitz and Vori, 1993](#); [von Hagen, 1996](#)). However,

monetary union was started in Europe without such a budgetary union, creating the fragility discussed earlier.

While a full budgetary union is not a realistic prospect in the euro zone in the foreseeable future, smaller steps could be taken, signalling a desire to move towards budgetary union in the future. One such step consists in the joint issue of Eurobonds. By jointly issuing Eurobonds, the participating countries become jointly liable for the debt they have issued together. This is a very visible and constraining commitment that may help to convince financial markets that member countries are serious about the future of the euro ([Verhofstadt, 2009](#); [Juncker and Tremonti, 2010](#)). In addition, by pooling the issue of government bonds, the member countries protect themselves against the destabilizing liquidity crises that arise from their inability to control the currency in which their debt is issued. A common bond issue does not suffer from this problem. Several concrete proposals have been formulated by Bruegel ([Delpla and von Weizsäcker, 2010](#); [De Grauwe and Moesen, 2009](#)). These also discuss the inevitable moral hazard issues that arise with the implementation of the common Eurobond issues (see also [Issing \(2009\)](#) and Gros (2011)).

It should be noted that if successful, such a common Eurobond issue would create a large new government bond market with a lot of liquidity. This in turn would attract outside investors, making the euro a reserve currency. It has been estimated that the combined liquidity and reserve currency premium enjoyed by the US dollar amounts to approximately 50 basis points ([Gourinchas and Rey, 2007](#)). A similar premium could be enjoyed by the euro. This would make it possible for the eurozone

countries to lower the average cost of borrowing, very much like the USA has been able to do.

Another important step in the process towards political union is to set some constraints on the national economic policies of the member states of the euro zone. As argued earlier, the fact that, while monetary policy is fully centralized, the other instruments of economic policies have remained firmly in the hands of national governments is a serious design failure of the euro zone. Ideally, countries should hand over sovereignty over the use of these instruments to European institutions. However, the willingness to take such a drastic step towards political union is completely absent. Here also small steps should be taken.

Some progress has been achieved in setting up new rules of economic governance in the euro zone. A so-called 'six pack' of measures strengthening control on budgetary policies and coordinating macroeconomic policies is very likely to be adopted. These measures include a tightening of the Stability and Growth Pact, including a stronger sanctioning procedure; the 'European Semester', which requires national governments to present their annual budgets to the European Commission prior to their approval in national parliaments; and the monitoring of a number of macroeconomic variables (current account balances, competitiveness measures, house prices and bank credit) aimed at detecting and redressing national macroeconomic imbalances. Failure to take action to eliminate these imbalances could trigger a sanctioning mechanism very much in the spirit of the sanctioning mechanism of the Stability and Growth Pact.

The proposals for reforming the governance of the euro zone that have been discussed in this section all require a far-reaching

degree of political union. Economists have stressed that such a political union will be necessary to sustain the monetary union in the long run ([EC Commission, 1977](#); [De Grauwe, 1992](#)). It is clear, however, that there is little willingness in Europe today to increase the degree of political union substantially, although the decisions taken by the heads of state and government of the euro area at their meeting on 21 July 2011 represented a shift in this direction. This unwillingness to go significantly further in the direction of more political union will continue to make the euro zone a fragile construction.

Conclusion

Any monetary union creates benefits and costs. This is also the case in the European Monetary Union. The benefits that were created in the euro zone are significant. They arise from the fact that the elimination of national currencies reduces transaction costs and eliminates the uncertainty produced by exchange rate volatility.

The costs, however, are also substantial. They arise from the fact that member countries of a monetary union lose an instrument of economic policy that can help countries to adjust to asymmetric shocks. In addition, countries that join a monetary union lose their capacity to issue debt in a currency over which they have full control. As a result, a loss of confidence of investors can, in a self-fulfilling way, drive the country towards default. This is not so for countries capable of issuing debt in their own currency. In these countries the central bank can always provide liquidity to the sovereign to avoid default. This

may lead to future inflation, but it shields the sovereign from a default forced by the market.

Thus member countries of a monetary union become very vulnerable to changing market sentiments. The latter can lead to 'sudden stops' in the funding of the government debt, setting in motion a devilish interaction between liquidity and solvency crises. This feature of a monetary union creates great fragility in sovereign debt markets in a monetary union. This fragility can only be overcome by collective action.

A monetary union can only function if there is a collective mechanism of mutual support and control. Such a collective mechanism exists in a political union. In the absence of a political union, the member countries of the euro zone are condemned to fill in the necessary pieces of such a collective mechanism. The debt crisis has made it possible to fill in a few of these pieces. What has been achieved, however, is still far from sufficient to guarantee the survival of the euro zone.

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