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The Euro at 10: Successes and Challenges

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(CIRANO and Middlebury College)

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Executive Summary

A dream came true.

A dream came true. Ten years ago, Robert Schuman's vision of a peaceful, integrated Europe, recognizing its common history, was finalized with the implementation of the euro. This achievement has lived for 10 years now, and is assuredly a success. But the euro area members continue to face the challenges of adjusting to the single monetary policy, abiding by the Stability and Growth Pact on the fiscal side, and implementing needed structural reforms. Europe is

closer than ever, but is still a work in progress. Europe is not yet fully integrated. There are many and maybe too many chapters in the European story: the European Union and the Economic and Monetary Union to cite only two. In this report, the first ten years will be reviewed, successes will be highlighted, and challenges will be emphasized. In conclusion, the next ten years will be analyzed considering the 2008 financial crisis.

Europe is plural. One immediately thinks of its two main postwar occurrences: the European Union (EU), and the Economic and Monetary Union (EMU). But there is also the European Free Trade Association (EFTA), the European Economic Area (EEA), and the Europe of Schengen. When one considers this plurality, then Europe's motto seems totally obvious: "United in diversity."

This plurality is at the root of Europe's successes but also its challenges. In the past 60 years, Europe has gone through an unbelievable number of steps to rebuild itself and integrate its economies to become both a new and peaceful Europe. From Robert Schuman's declaration on May 9th, 1950, to the rejection of the European Constitution on June 12, 2008¹, Europe is definitely not running a sprint, but a hurdle race. It is surely a slower, and more complicated process than was anticipated, but Europe continues to progress in its integration. From an economically motivated integration, Europe is now closer to the supranational entity once dreamt of by Robert Schuman and presented to the world in the "clock lounge" of the Foreign Affairs Ministry Hausmanian building.

THE EUROPEAN UNION

With 23 official languages (including a regional language: Gaelic), 27 countries², 500 million inhabitants, the EU is the world trading leader. Considered as a single economy, the EU generated an estimated nominal gross domestic product (GDP) of US\$16.83 trillion in 2007, amounting to 31% of the world's total

¹ By the Irish people following the French and Dutch peoples.

² Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

economic output. It is also the largest exporter of goods, the second largest importer behind the United States and the biggest trading partner to several large countries such as India, and China. With 281 medals during the 2008 Summer Olympic Games, the EU is ranked first, before the US (second with 110 medals), and China (third with 100 medals). Roughly 170 of the top 500 largest corporations measured by revenue (Fortune Global 500) have their headquarters in the EU. And Europe is definitely diverse, which is a challenge in many regards; there is a great deal of variance for annual per capita income (from US\$7,000 to US\$69,000) within individual EU states.

The EU was officially established by the Treaty of Maastricht in 1993, on the foundations laid down by the European Economic Community (EEC) in the Treaty of Rome in 1957³. Essentially, the EU has two main characteristics: one economic, and one political. Economically, the EU is a free-trade area (free movements of goods, services, capital, and persons) and a customs union. Politically, the EU is the layer governed by specifically-designed institutions to manage this free-trade area in its several constituencies: the Council of the European Union, the European Commission, the European Parliament, and the European Court of Justice. The EU is thus a hybrid of inter-governmentalism and supra-nationalism.

THE EUROPEAN FREE TRADE ASSOCIATION

Aside the EU stands the EFTA. The EFTA was established on May 3, 1960 as a trade-bloc alternative for European states who were not yet ready to join the then-EEC (now the EU). Austria, Denmark, Norway, Portugal, Sweden, Switzerland (representing also Liechtenstein) and the United Kingdom were the founding members of the EFTA. Finland became a member in 1986 (being an associate member since 1961), and Iceland joined in 1970. The United Kingdom and Denmark left EFTA in 1973 to join the EEC. Portugal was the next EFTA country to join the EEC in 1986. Finally, Austria, Sweden and Finland joined the newly created European Union in 1995. In 2009, Iceland, Norway, Switzerland, and Liechtenstein remain members of EFTA, but the 2008 financial crisis may have an impact on their perspectives and future status.

Created on January 1, 1994, the EEA allows the EFTA countries to participate in the European single market without joining the EU. The contracting parties

³ More precisely, the EEC was established by one of the two Treaties of Rome.

to the EEA Agreement are three of the four EFTA states(Iceland, Liechtenstein and Norway) and the 27 EU Member States. The fourth EFTA country (Switzerland) is linked to the EU through bilateral agreements.

THE SCHENGEN RULES

Covering a population of over 450 million people, the Schengen rules apply to 25 states, 22 from the European Union states and 3 non-EU members (Iceland, Norway and Switzerland). The rules include provisions on common policy on the temporary entry of persons and the harmonization of external border controls. Two EU members (the United Kingdom and Ireland) have opted not to fully participate in the Schengen system.

THE EURO

On top of the free movement of goods, services, capital and persons, sixteen EU Member States have introduced the euro as their currency: Belgium, Germany, Ireland, Greece, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Slovenia, Cyprus, Malta, Finland, and Slovakia (see Figure 1). Upon accession to the EU, a new Member State commits itself to introducing the euro when all the necessary criteria have been met. By meeting these criteria, a Member State demonstrates a high degree of sustainable economic convergence with the euro-area economy before introducing the euro. The first countries to enter in January 4, 1999 were Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, and Finland. Then came Greece (January 1, 2001), Slovenia (January 1, 2007), Cyprus (January 1, 2008), Malta (January 1, 2008), and Slovakia on January 1, 2009.

The path to the membership of the euro area, in other words the path to becoming an optimum currency area⁴, or the impact of sharing a single currency as explained by the theory of an endogenous optimum currency area⁵

⁴ Kenen, Peter B. 1969. "The Theory of Optimum Currency Areas: An Eclectic View," in *Monetary Problems in the International Economy*. Robert Mundell and A Swoboda eds. Chicago: University of Chicago Press, McKinnon, Ronald. 1963. "Optimum Currency Areas." *The American Economic Review*, 53, pp. 717-24, Mundell, Robert. 1961. "A Theory of Optimal Currency Areas." *American Economic Review*, 51, pp. 657-65.

⁵ Frankel, Jeffrey A and Andrew K Rose. 1998. "The Endogeneity of the Optimum Currency Area Criteria." *Economic Journal*, 108, pp. 1009-25, Mundell, Robert. 1973. "Uncommon Arguments for common Currencies," in *The Economics of Common Currencies*. H. G. Johnson and A. K. Swoboda eds: Allen and Unwin, pp. 114-32, Warin, Thierry, Phanindra Wunnava, and Hubert

strengthens the degree of economic interdependence between Member States. Euro-area Member States share the common currency and lose their autonomous monetary policy to a euro-wide monetary policy conducted by the European Central Bank (ECB). This increasing economic integration encourages closer coordination of economic policies.

Figure 1
Map of Europe



Source: www.europa.eu.int, 2009.

In view of this interdependence, euro-area members face specific, common economic challenges. For this reason, since 1999, the finance ministers of the euro-area Member States have met informally as the “Eurogroup” to discuss issues connected to their shared responsibilities for the single currency. The Commissioner for Economic and Monetary Affairs and the President of the

Janicki. 2009. "Testing Mundell's Intuition of Endogenous OCA Theory." *Review of International Economics*, 17:1, pp. 74-86.

European Central Bank also participate in these meetings. Lately, in the wake of the 2008 financial crisis, the United Kingdom has joined the Eurogroup for a special meeting on dealing with the issues at stake.

This report will highlight some of the big changes the euro area has faced over the past ten years. These changes have mostly been successes, but at times they have represented the real future challenges of Europe. Before going into this discussion, a brief history of European economic integration will be presented.

A Brief History of the European Economic Integration

In the aftermath of the Second World War, Europe's economies were in ruin. After the Hague Convention of 1948 it was also clear that the rebuilding of Europe meant not only the recovery of the national economies, but also the design of a common European project to prevent further wars. In 1951 six countries (Belgium, France, Germany, Italy, Luxembourg, and The Netherlands) signed the Treaty of Paris. This treaty dealt with the integration of coal production and one of the most used material: steel. The Coal and Steel community was born. The idea of a free-trade area, expanded to other goods and services, emerged. Even beyond pure economic considerations, the share of the civil atomic energy came on the table, although in 1955 the most advanced country in atomic energy, France, initially refused to transfer its knowledge to the other members of the Treaty of Paris club, which included Germany. In 1957 however, two treaties were signed: the Treaties of Rome. The first treaty created the Europe of energy: Euratom. The second treaty gave birth to a roadmap envisioning a total free-trade area and a customs union for goods and services. This included complete freedom of migration between the members of what was then called the European Economic Community (EEC). Because of its military and strategic implications, Euratom received a lot of attention. We all know now that the second treaty was by far the most consequential one. The first integrated policy was the Common Agricultural Policy in 1962. It is the first example of the adaptation of the countries to EEC regulation. Instead of having tariffs and subsidies decided at the national level, starting in 1962, tariffs between the EEC members and national subsidies would disappear, and external tariffs would be harmonized. Subsidies and agricultural regulations would be decided at the European level based not on the needs of individual countries but on targets for certain agricultural products. All of this was designed to prevent competitive

distortions. In 1967, 18 months before the deadline agreed to in the Treaty of Rome, the EEC became a real free-trade area. However, with the entrance of new members through the 70s and 80s, the need for a new and enlarged free-trade area was felt, and the single market for goods, services, capital and labor, whose roadmap was launched in 1986, was a major step in this direction. It was fully implemented in 1993 with the Single European Act.

In the early 70s, the Werner report added a monetary dimension to the existing trade union. The two oil crises that followed prevented this idea from gaining real momentum before the late 70s. In July 1978 at Bremen, the Chancellor of Germany, Helmut Schmidt, and the French president, Valéry Giscard d'Estaing, proposed the creation of a “zone of monetary stability in Europe by establishing a European Monetary System.” In the late 80s, the then-president of the European Commission, Jacques Delors, proposed in a report named after him, the political integration of the EEC members with a common currency. The international context was the future reunification of Germany and the possible collapse of USSR. As early as 1989, the European Commission called attention to the necessity of healthy public finances as a precondition of monetary integration: “uncoordinated and divergent national fiscal policies would undermine monetary stability and generate imbalances in the real and financial sectors of the Community”⁶. In this context, it was thought that the European community should move further to prevent the rise again of nationalisms and tensions between countries. The criteria for accession to the so-called Economic and Monetary Union—a sub-group of the European Union—was laid down in the Treaty of Maastricht (February 1992) implemented in 1993. The economic entry criteria were designed to ensure economic convergence—they are known as the “convergence criteria” (or “Maastricht criteria”).

Adopting the single currency is a crucial step in a Member State's economy. Its exchange rate is irrevocably fixed and its monetary policy is transferred to the hands of the European Central Bank, which conducts it independently for the entire euro area.

In addition to meeting the economic convergence criteria, a euro-area candidate country must make changes to national laws and rules and abide by the so-called

In the early 70s, the Werner report added a monetary dimension to the existing trade union.

⁶ Delors, Jacques. 1989. *Economic and Monetary Union and Relaunching the Construction of Europe*. Luxembourg: Office of Official Publications of the European Communities.

“Acquis communautaires.” One obvious rule is to declare national central banks independent.

The convergence criteria are formally defined as a set of macroeconomic indicators, which measure:

- 1 Price stability: no inflation rate should be greater than 1.5% above the average of the three countries having the lowest inflation rates.
- 2 Sustainability of public finances: the public deficit should be below 3% of GDP, and national debt should be below 60% of GDP.
- 3 Exchange-rate stability: participation in the Exchange Rate Mechanism (ERM II) for at least two years without strong deviations from the ERM II central rate.
- 4 Long-term convergence: it is measured compared to the long-term interest rate average of the three countries with the lowest inflation rates.

The Member States that initially adopted the euro in 1999 had to meet all these conditions. The same entry criteria apply to all countries that have since adopted the euro and to all those that will wish to join in the future.

Of the EU Member States outside the euro area, Denmark and the United Kingdom obtained “opt-out” clauses in 1992 during negotiations over the Treaty of Maastricht. Sweden is not yet in the euro area for a different reason: it has not made the necessary changes to its central bank legislation. This technicality creates a precedent because Sweden, although being required to adopt the euro, does not meet the convergence criterion related to participation in the Exchange Rate Mechanism (ERM II). New EU members could use this precedent to not enter into the euro area.

Governing the Euro Area

During the initial convergence period from 1993 to late 1998, it appeared that some coordination rules would be needed once the first European countries were ready to enter into the EMU. To this end, Germany proposed the Stability Pact in order to extend the positive effects of the convergence period, and to prevent countries from contracting their public spending during this period, only to increase it later on.

THE FISCAL POLICY

First drafted in Madrid in 1995, heavily debated in Florence and Dublin in 1996, and accepted by France the same year, the Stability Pact became the Stability and Growth Pact (SGP). Now backed by the two largest countries of the forthcoming EMU, the SGP was adopted in Amsterdam in 1997.

The discussion led to a twin-track strategy. The first track is based upon Article 103 of the Maastricht Treaty, under the aegis of strengthening fiscal surveillance coordination, whereas the second track is based on article 104c regarding the excessive deficit procedure. Article 103 sets up an early warning system for identifying and correcting budgetary slippages to ensure that government budget deficits will not exceed the ceiling of 3% of GDP. Article 104c consists of a set of rules to avoid excessive deficits, or to take measures (including sanctions) to correct them quickly if they occur. The SGP consists of extensions of the fiscal package of the Treaty of Maastricht. To comply with the SGP countries must have a budget deficit within 3% of GDP, or public debt lower than 60% of GDP, although recent practice suggests that the latter criterion seems to be of a weaker timbre.

There are dissuasive elements, which require Member States to take immediate corrective action and, if necessary, allow for the imposition of sanctions⁷. If a country breaches the SGP, it exposes itself to penalties. These penalties are embodied in the SGP through article 104c of the Treaty of Maastricht via compulsory deposits that, after time, can be transformed into fines if governments do not take measures to decrease their deficits. The non-interest bearing deposits are made up of two elements; a fixed sum equal to 0.2% of GDP and a supplement of 0.1% of GDP for every percentage point by which the budget deficit exceeds the 3% reference level. Derogation is possible for “exceptional and temporary” circumstances, particularly in the case of a negative annual real growth rate. The exemption is automatic for countries if their GDP has declined by at least 2%, and if the excess deficit is temporary and small. Those countries in which the GDP has declined between 0.75% and 2% can also gain exemption from the rule with the consent of the Council. In the new definition of the SGP, “relevant factors” will also be considered. When taking into account “relevant factors”—which are already in the Treaty and which have to be used in a balanced overall assessment—the decision whether an excessive deficit exists will be fully conditional on the overarching principle that—before these factors are taken into account—the excess over the reference value has to be temporary and the deficit has to remain close to the reference value, nor can those relevant factors be invoked to put an end to an excessive deficit procedure. More emphasis will be placed on debt developments and sustainability.

Since France and Germany breached the pact, the European Commission was bound by the SGP to levy sanctions against them; an interest-free deposit of between 0.2% and 0.5% of GDP should have been collected, a situation that would have resulted in a fine for Germany and France of €4 billion and €3 billion, respectively.

The Franco-German case has reactivated the economics literature on the pros and cons of a European fiscal rule. Germany, France, Italy and Britain constitute a powerful club arguing for a reform. Defenders of the rule, whose budgets are in order, are smaller states such as Austria, Ireland and the Netherlands (see Figure 2 and Figure 3).

⁷ European Council. 1997. "Speeding up and Clarifying the Implementation of the Excessive Deficit Procedure." *Official Journal*, L:209, pp. 0006-11.

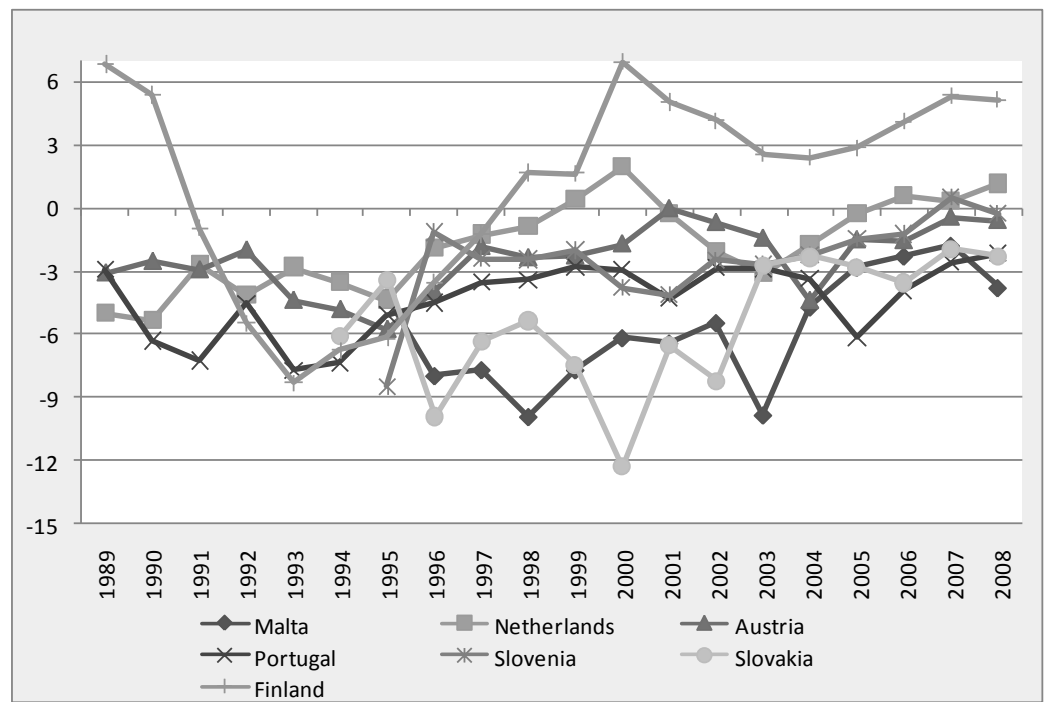
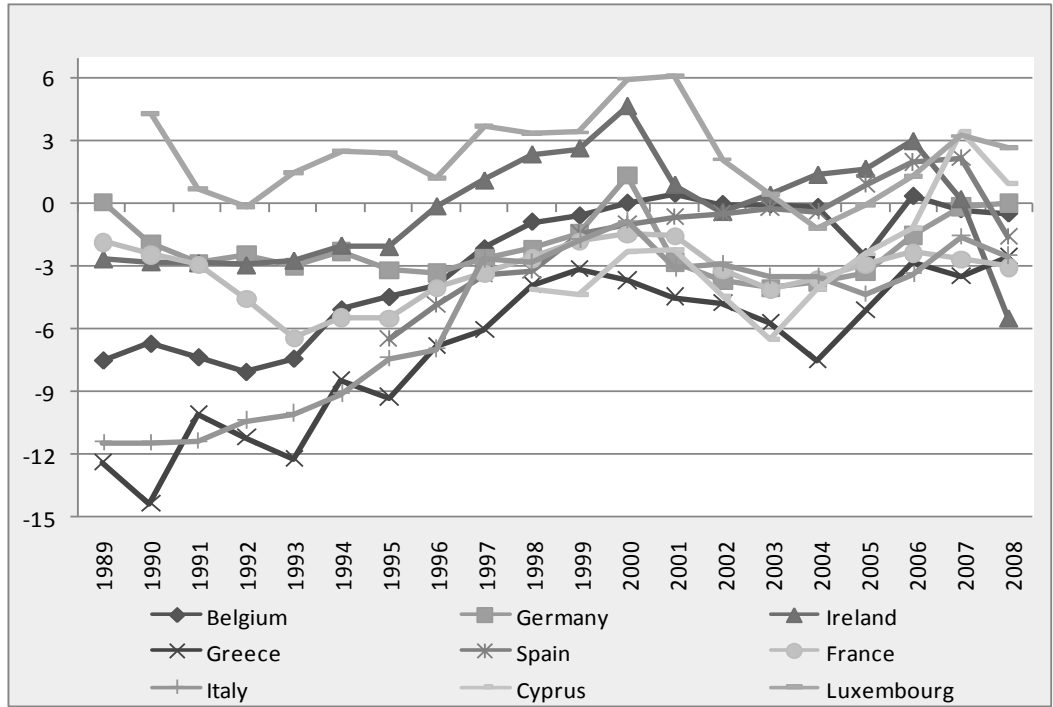
On the other hand, fiscal policy is still decentralized and the responsibility of each nation. The European budget is very meagre (1.2% of GDP) compared to national budgets. This mixture of centralized monetary policy and decentralized budgetary policies leads to a difficult question; how to establish the “right” policy mix for the euro zone?

EVOLUTION OF THE STABILITY AND GROWTH PACT

On March 23rd, 2005, the European Council agreed unanimously to introduce some flexibility into the SGP, creating in fact a SGP II. This flexibility is introduced via the concept of “relevant factors”, which are country specific. Nevertheless, six years of governance by the Treaty of Maastricht, followed by five years under the rules of the SGP seem to adequately demonstrate the positive externalities created by the European fiscal packages on European countries’ economies.

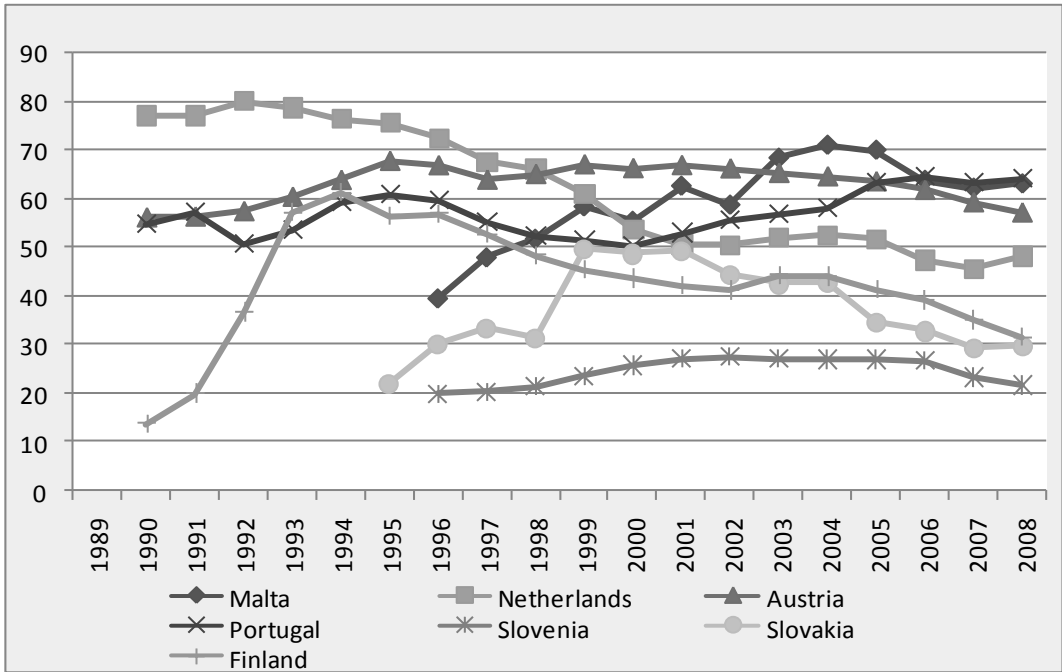
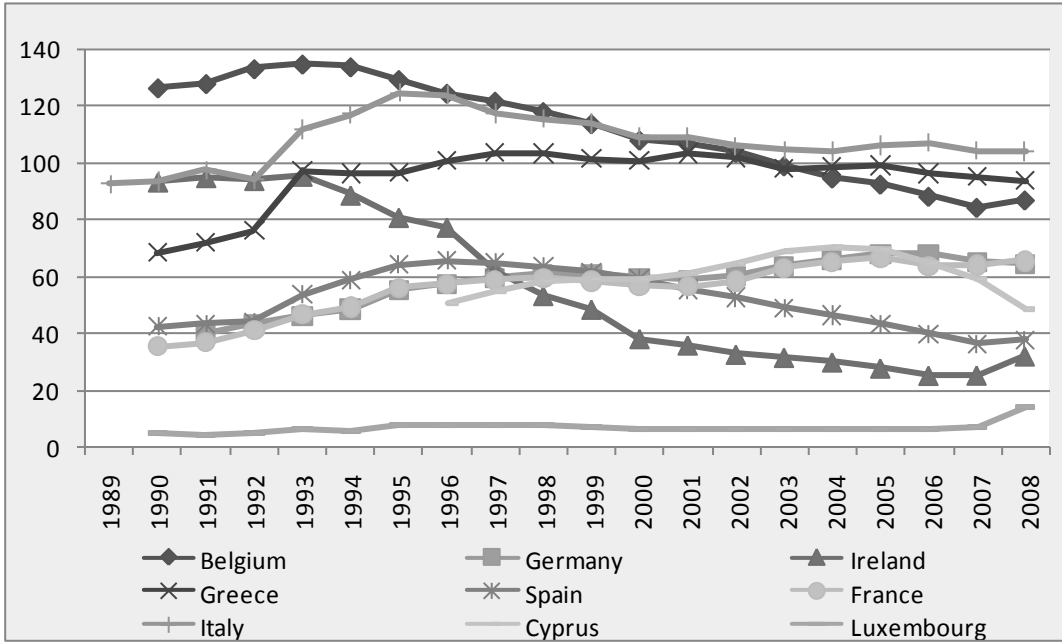
However, with the financial crisis that started in 2008 some countries are breaching, or close to breaching, the SGP in 2009. Using the revised numbers from Eurostat for Greece, the latter was always above the 3% deficit ceiling. Portugal’s deficit in 2001 was greater than 3%, followed by Germany's and France's from 2002 to 2004, as well as the subsequent breaches by Italy, U.K., and The Netherlands in 2004. France, Germany, the UK and a significant number of other European countries are expected to breach the SGP in 2009 and 2010. The British public deficit may even reach 10% of GDP in 2010. Although this is technically possible within the confines of the SGP rules through the concept of “relevant factors”, it is practically marking the end of the SGP.

Figure 2
Public deficits in the euro area



Source: Ameco, 2009.

Figure 3
National debts in the euro area



Source: Ameco, 2009.

The ill-designed SGP, the lack of an efficient policy mix, the demographic challenge, and the resistance to structural reforms in the European countries are serious challenges to the European economic integration.

If the SGP comes to an end as a consequence of the 2008 financial crisis, it will pose a big challenge for public finances and also monetary policy. The original fears accounted for in the earlier economic literature will reappear. Europe's public finances are a bigger challenge than usually thought. The ill-designed SGP, the lack of an efficient policy mix, the demographic challenge, and the resistance to structural reforms in the European countries are serious challenges to the European economic integration.

SOME REASONS WHY THE STABILITY AND GROWTH PACT FACES CHALLENGES

The question of free-riding is at the forefront of this issue. The standard explanation goes like this: when a government gets in fiscal trouble, investors may sell bonds, whose prices fall and deteriorate the balance sheets of private banks. In order to avoid the collapse of the banking system, the ECB may feel pressured to buy these bonds and thereby monetize the deficit. The resulting inflation tax is borne by citizens of the whole Euro region and not only by those of the "guilty" country. This provides a strong incentive for a government to carry out riskier fiscal policies than those outside the monetary union: in good times, it will reap the full benefit while in bad times costs will be transferred to a large extent on the other member countries. Limits on deficits of the SGP type have a favorable role in deterring excessive spending and may serve as an efficient fiscal coordination device. Also, until mid-March 2008, the ECB statute and the Maastricht Treaty explicitly forbade government bailouts. This is no longer true as a consequence of the 2008 financial crisis.

Even if the ECB is not influenced by fiscal policy, legal limits on public deficits may be useful. When a country belonging to a monetary union undertakes a fiscal expansion favorable to domestic employment, interest rates in the union increase and/or the currency appreciates; in this case, activity and employment in the other member countries might be adversely affected by this policy. Therefore, all of them bear the cost of self-interested actions. In this context, sanctions against deviating countries could prevent self-interested governments from carrying out opportunistic policies.

POLITICAL REALITY

Any breach of the deficit rule precluded the country's entrance. In effect, once a member of the EMU, a country understands that the letter of the SGP's law is

far looser than its spirit, and that some room for manoeuvring exists. Indeed, its application is more difficult than the criteria, and the dynamics of the pact generate unforeseen effects. Because the SGP is calculated over GDP and countries cannot know the precise level of the gross domestic product in the future, it is almost impossible for countries to target a deficit of 3% GDP. Consequently, the SGP is effectively an *ex post facto* rule.

This characteristic makes it rather difficult, if not impossible, for a country to abide by the rule without knowing precisely what its end of the year GDP will be.⁸ When a country decides its spending, it approximates its revenue by considering a forecast of the GDP growth rate. If for any reason the actual GDP is lower than the forecasted GDP,⁹ the country may breach the pact. While it might be argued in defence of the pact that a country should choose a minimum margin approach instead of an optimistic one, political considerations make this improbable. Given the impact of economic language on people's confidence, a policymaker may continue to forecast a higher GDP growth rate, and consider an actual deficit cap lower than the 3% rule. Politicians, however, for whom the life cycle is very short, may consider the vagueness of such an approach to be a loophole. This intrinsic *ex post facto* feature of the SGP is an important reason why the political incentive to abide by the pact is reduced.

THE MONETARY POLICY

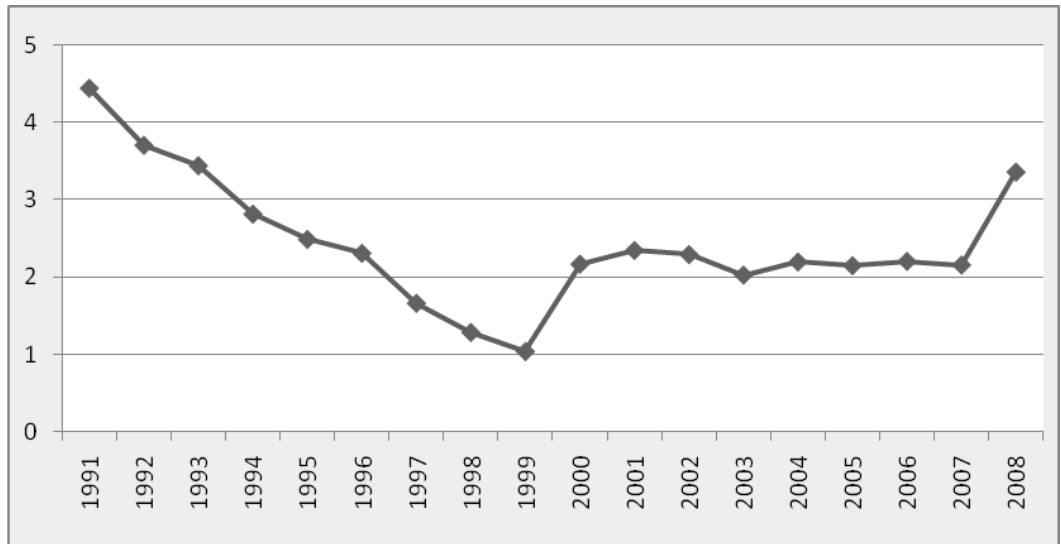
With the launch of the single currency as of January 1999, the *European Union* has reached a new and outstanding stage of its economic integration. At this time, the eleven founding euro countries transferred control over monetary policy to the ECB and assigned to this new supranational institution the goal of price stability in the euro region. As stipulated in the statutes of the ECB¹⁰, its primary mandate is to ensure price stability (see Figure 4). At the same time, instead of seeing diverging inflation rates as a consequence of differences in growth, inflation rates converged (see Figure 5).

⁸ For instance, France in 2002 breached the SGP with a deficit of 3.1% of GDP.

⁹ See Jonung, Lars and Martin Larch. 2004. "Improving Fiscal Policy in the EU: The Case for Independent Forecasts." *European Economy Economic Papers*, 210.

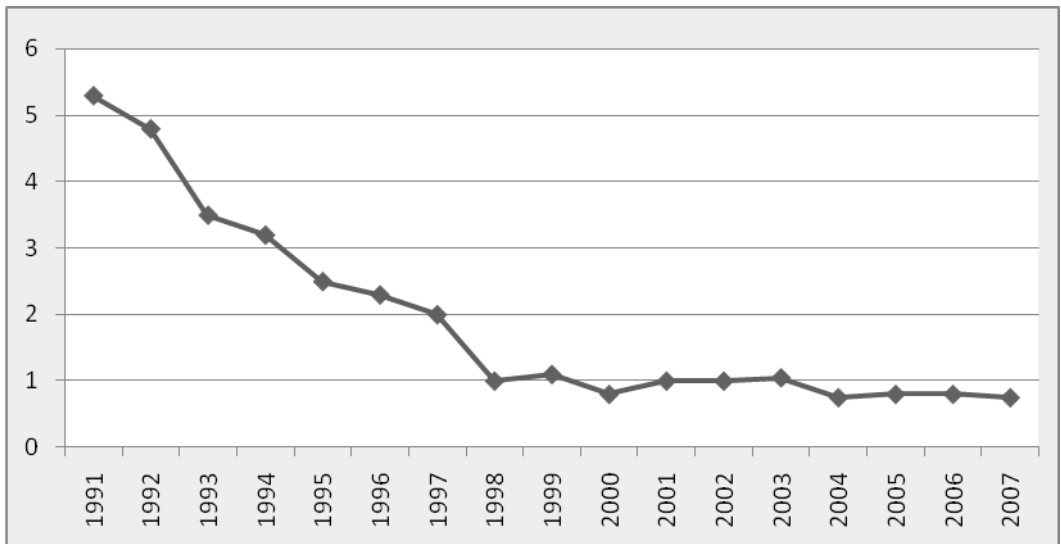
¹⁰ European Central Bank. 1992. "Protocol on the Statute of the European System of Central Banks and of the European Central Bank." C191/68: 12. European Union: Brussels.

Figure 4
Harmonized consumer price index (% change)



Source: Ameco, 2009.

Figure 5
Inflation dispersion for euro-area member states

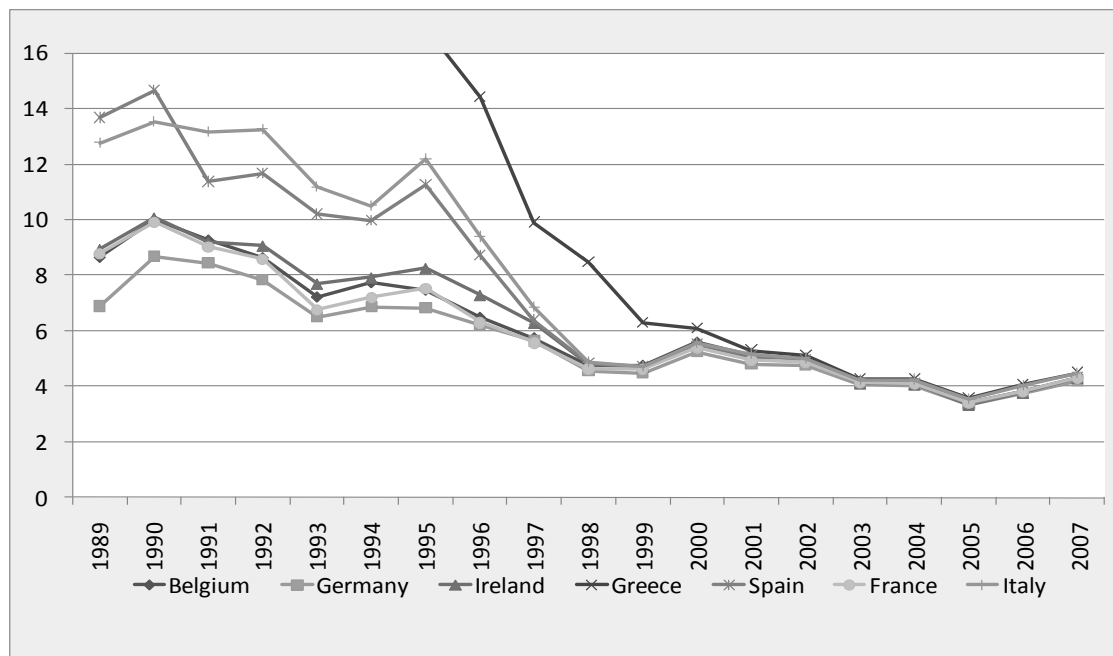


Source: Own computations, 2009.

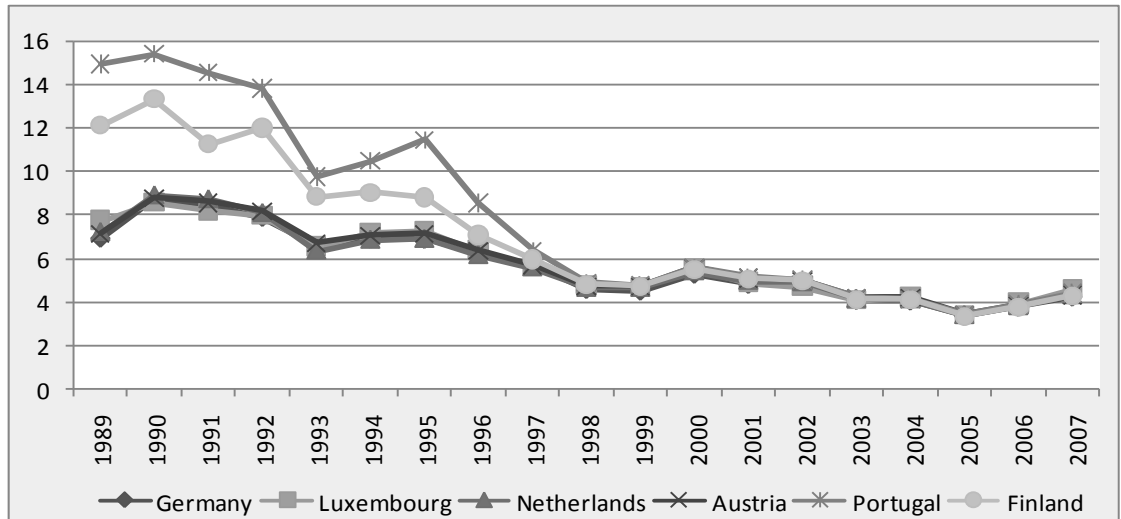
The strong emphasis on price stability finds its rationale in two arguments: (1) a political argument: the ECB must look like the Bundesbank to reassure the Germans; (2) an economic argument: the search for credibility¹¹.

The latter has actually worked. Although a wide variety of national debt levels exists across the euro area, which would justify a higher risk-premium for the highly indebted countries (Belgium, Greece, Italy), in fact treasury bonds spreads narrowed as if the financial markets did not consider these countries to be at risk of default anymore (see Figure 6). This is even more interesting when one remembers that the Treaty of Maastricht forbids country bailouts, as well as it forbids the ECB from bailing out countries in difficulty.

Figure 6
10-year treasury bonds (Germany as an anchor)



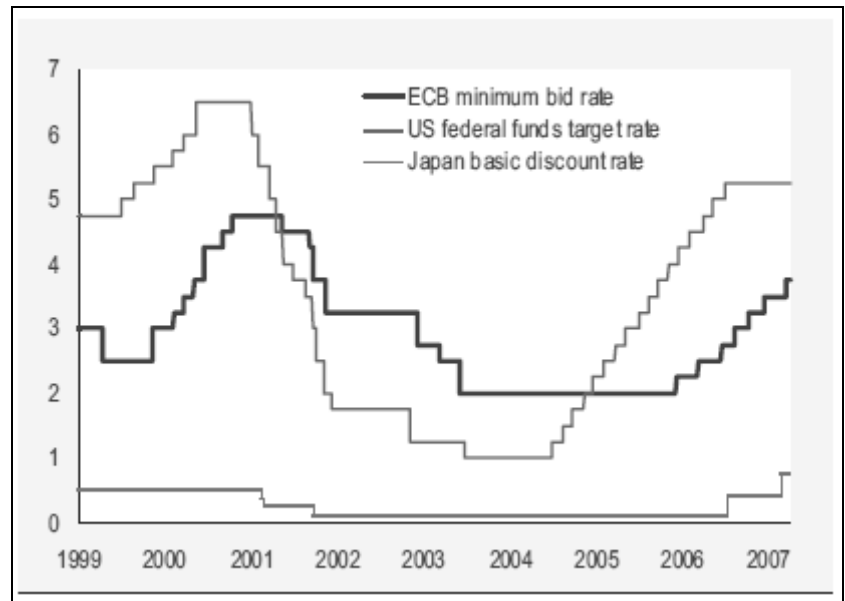
¹¹ Barro, Robert and David Gordon. 1983. "Rules, Discretion and Reputation in a Model of Monetary Policy." *Journal of Monetary Economics*, 12, pp. 101-22, Kydland, Fynn and Edward Prescott. 1977. "Rules Rather than Discretion, The Inconsistency of Optimal Plans." *Journal of Political Economy*, 85:3, pp. 473-92, Rogoff, Kenneth. 1985. "The Optimal Degree of Commitment to an Intermediate Monetary Target." *Quarterly Journal of Economics*, 100, pp. 1169-90.



Source: Ameco, 2009.

Moreover, when one looks at the difference in the ECB minimum bid rate and the US federal funds target rate (see Figure 7), there was no real reason to believe that the euro would appreciate, but it did. This is the result of both an improvement in the euro area's fundamentals, and a higher credibility.

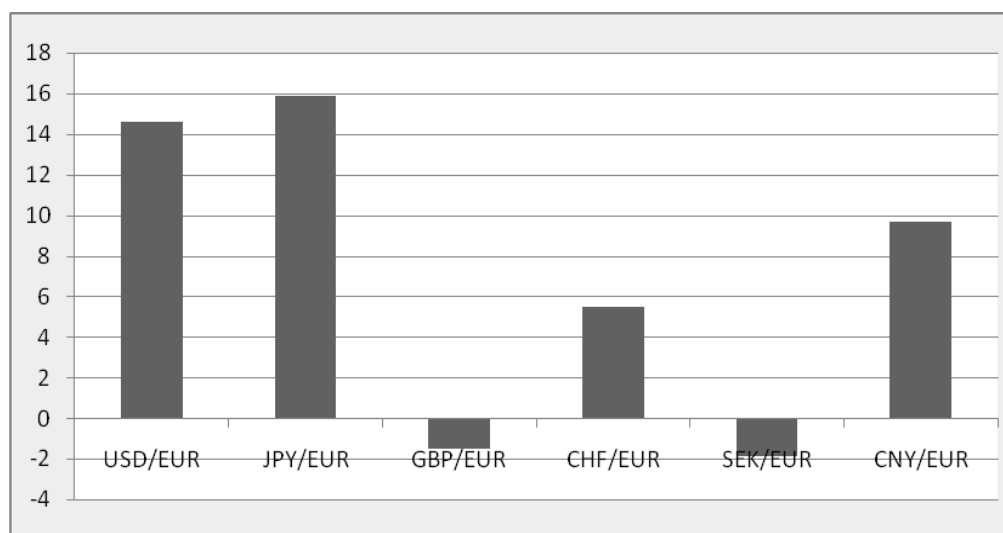
Figure 7
Central bank policy rates



Source: (European Commission 2007).

If this search for price stability has ensured the credibility of the ECB, criticisms arose in 2008 and 2009 concerning the blindness of the ECB in coming to the assistance of Europe's economies. The basic argument is that the Fed is better equipped to cope with the financial crisis than the ECB. Even if the ECB's mandate may seem more favorable to a sound monetary policy, the question is whether the ECB can ignore the secondary objective of the Fed; the real economy. The search for credibility may explain this institutional blindness. And it does have consequences on the European economies. Just between January 2006 and April 2007 (see Figure 8), the euro appreciated against almost all other currencies, profoundly affecting the trade competitiveness of the euro area.

Figure 8
Changes in EUR bilateral rates (January 2006 -Mid-April 2007).¹²



Source: European Commission (2007) Own computations, 2009.

SOME REASONS WHY THE MONETARY POLICY FACES CHALLENGES

When the treaty was initially drafted, many economists felt that loose fiscal policies would harm the credibility of the European Central Bank which, despite formal interdiction, might be compelled to bail out spendthrift governments, thus fuelling inflation and harming the Euro stability. Some of them also emphasized the risk that, once in the monetary union, certain countries might

¹² USD=U.S. Dollar; JPY=Japanese Yen; GBP=British Pound; CHF=Swiss Franc; SEK=Swedish Crown; CNY=Chinese Renminbi.

borrow excessively as they will have access to the wider pool of European savings¹³.

Beyond the question of harming the credibility of the ECB through the risk of having countries free-ride on their fiscal policies, there is the question of finding the correct mix between the centralized monetary policy and the decentralized—though cooperating—national fiscal policies. European authorities have long been concerned with this question. Even in 1989, the European Commission paid great attention to the necessity for sound public finances as a condition of monetary integration, as, “uncoordinated and divergent national fiscal policies would undermine monetary stability and generate imbalances in the real and financial sectors of the Community” (Delors, 1989).

Aside from the policy mix question, when the Maastricht Treaty was drafted many officials felt that the fiscal setup would undermine the credibility of the European Central Bank. If a country's fiscal situation becomes unsustainable, other countries might be forced to bail out the insolvent national government, or the European Central Bank might be forced to monetize unsustainable national debts, and in doing so, create additional inflation in the EU¹⁴. The SGP would save the credibility of the ECB while ensuring the latter a good policy mix as the countries are constrained by the fiscal rule.

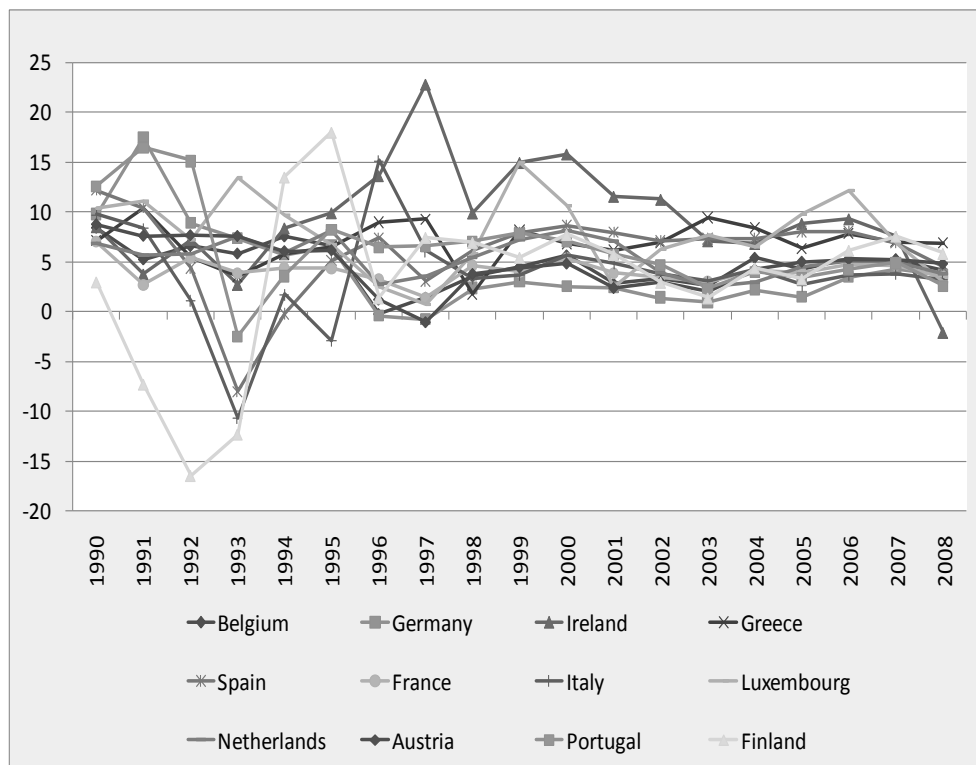
THE STRUCTURAL POLICY

By adopting the euro, the economies of the euro-area members became more integrated (see Figure 9). Apart from Ireland in 2008, the euro-12 countries converged to around 5% nominal growth. This economic integration must be managed properly to realize the full benefits of the single currency. Therefore, the euro area is also distinguished from other parts of the EU by its economic management—in particular, economic policy-making.

¹³ Goodhart, Charles. 1992. "EMU in Europe: A UK Perspective," in *Exchange Rate Regimes and Currency Unions*. Ernst Baltensperger and Hans Werner Sinn ed. New-York: St Martin's Press, pp. 1983-2199.

¹⁴ Beetsma, Roel and A. Lans Bovenberg. 1995. "The Interaction of Fiscal and Monetary Policy in a Monetary Union: Balancing Credibility and Flexibility." *Working Papers Tilburg Center for Economic Research*:95101.

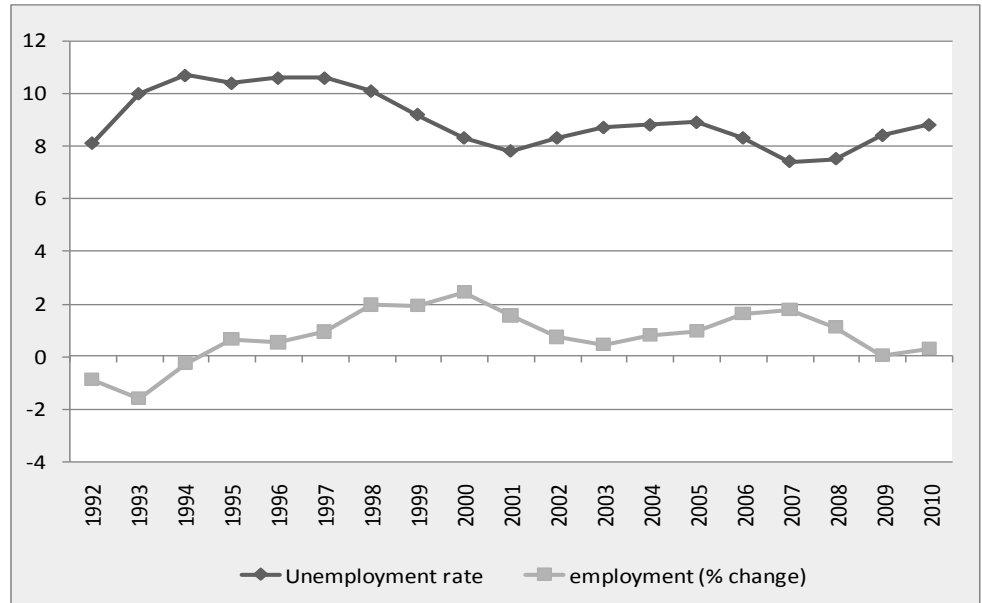
Figure 9
Nominal growth in the euro area (euro-12)



Source: European Commission (2007).

Since the euro area members cannot use the monetary policy and have strict medium term fiscal objectives restraining them from running the fiscal policy of their choice, they have three remaining tools to design economic policies: (1) the law (regulations/deregulations), (2) taxation policy, and (3) public expenditure allocation. The goal of the structural policy is to tackle unemployment, labor conditions, and inequalities. Although it declined to a euro area average of 7.5% of the labor force (see Figure 10), unemployment is an issue for the euro-area members. It actually stagnated at around 8% in the early 2000s. In light of the 2008 financial crisis, this number can only rise (see Figure 10, years 2009 and 2010), meaning that if the answer comes neither from the ECB nor from the fiscal policy, then structural policies—coordinated or not at the Eurogroup level—will be of a paramount importance.

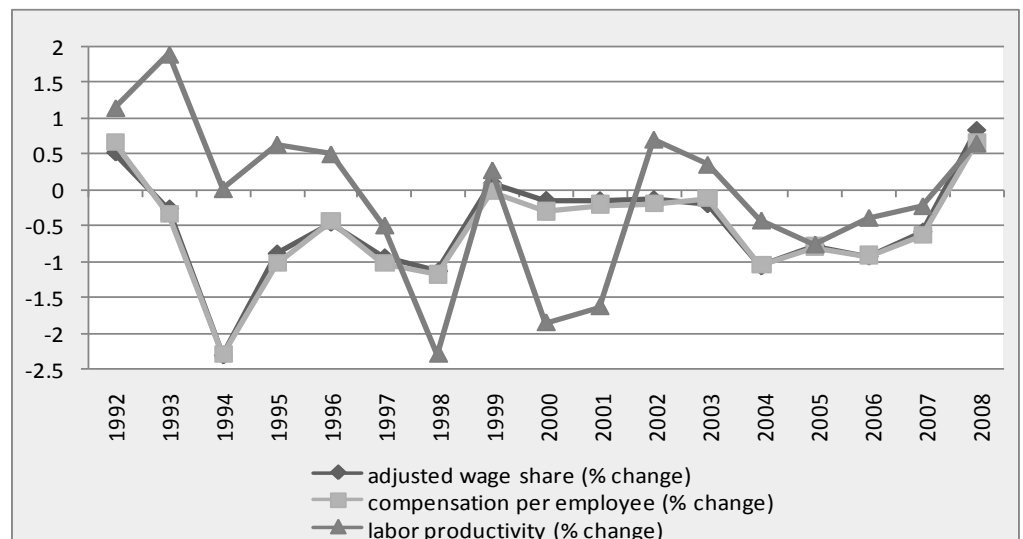
Figure 10
Unemployment and employment in the euro area (euro-12)



Source: Ameco, 2009.

Another challenge the euro area faces is that of labor productivity. Although the euro area is a very productive region when levels are considered, the growth rate in labor productivity has declined (see Figure 11).

Figure 11
Average labor productivity in the euro area (euro-12).

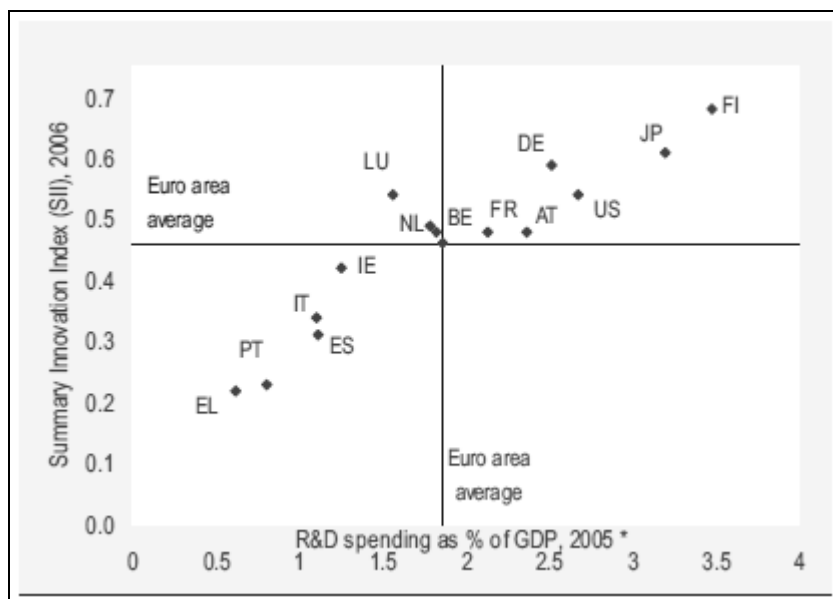


Source: Ameco, own computations, 2009.

Wage growth however was contained: the compensation per employee and the percentage change in the adjusted wage share provide evidence that the euro-area gained in competitiveness (see Figure 11).

About R&D, with an average of 1.2% of GDP invested in R&D, the euro area is below the U.S. (1.9%), and Japan (2.4%). This explains the lower return on innovation—except for Luxembourg, Germany and Finland (see Figure 12).

Figure 12
R&D spending and innovation levels.



Source: European Commission (2007).

The challenge is that economic policy remains largely the responsibility of the Member States, but national governments must coordinate their respective economic policies in order to attain the common objectives of stability, growth and employment. Coordination is achieved through a number of structures and instruments.

First of all, every topic that is now of exclusive competency of the EU, such as trade policy or the common market, is discussed at the EU level, not at the national level.

Second of all, the Eurogroup was created in 1997 and represents an “informal institutionalization” of the euro-area members. Economic policies are debated and coordinated (at best) on a monthly basis. If coordination does not happen, at least every country knows what its peers are going to decide.

Third of all, European Union leaders have reached an agreement on a new Constitutional Treaty for Europe at the European Council in Brussels on June 17 and 18, 2004. Interestingly enough, the SGP is included in the Constitution, thus it has been reaffirmed even after having been criticized. The Heads of State or Government reaffirmed: “With regard to Article III-76, the Conference confirms that raising growth potential and securing sound budgetary positions are the two pillars of the economic and fiscal policy of the Union and the Member States. The SGP is an important tool to achieve these goals. The Conference reaffirms its commitment to the provisions concerning the Stability and Growth Pact as the framework for the coordination of budgetary policies in the Member States of the European Union.”¹⁵

¹⁵ European Commission. 2004. "Meeting of Heads of State or Government." *CIG 85/04*: 1-30: Brussels.

The external dimension of the euro

The size, stability and strength of the euro-area economy make the euro increasingly attractive beyond its borders. On the 4th of January 1999 when the fundamentals of European economies look similar as the day before (on the financial calendar, it was December 30th, 1998), the euro was already more used in international markets than the former currencies of Europe. This suggests that financial markets thought the credibility of the whole was greater than the credibility of the parts themselves. However, from 1999 to mid-2001, the euro fell to a historic low point at around US\$ 0.83, but then steadily rose until a historical high at almost US\$ 1.6, to be around US\$ 1.35 early 2009. Ten years later, the euro is now stronger than at its birth, although it is in the early 2009 in the midst of the worst financial crises since 1929 (see Figure 13).

This suggests that financial markets thought the credibility of the whole was greater than the credibility of the parts themselves.

Figure 13
Euro-Dollar exchange rate (Jan 4, 1999-Feb 3, 2009)



Source: ECB

The widespread use of the euro in the international financial and monetary system demonstrates its global presence¹⁶. The international use of a currency can be defined through the usual taxonomy: a unit of account, a medium of exchange, and a store of value.

In terms of a proxy for being a unit of account and a medium of exchange, one can think of the euro's share as a settlement/invoicing currency in extra-euro area trade with euro area countries. It is worth noticing the rise for all the countries in the use of the euro in international trade (see Figure 14). The euro is the second most actively traded currency in foreign exchange markets; it is a counterpart in around 40% of the daily transactions.

Figure 14
Euro's share as a settlement/invoicing currency in extra-euro area exports and imports of goods and services of selected euro area countries

(as a percentage of the total)												
	Goods						Services					
	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
Exports												
Belgium	46.7	53.6	56.6	57.7	54.8	58.5	...	64.1	70.6	72.2	73.0	73.7
France ¹⁾	50.8	50.5	49.0	49.2	49.8	49.7	40.0	40.3	42.4	42.4	43.6	46.3
Germany	...	50.1	63.0	63.2	61.0	67.8	...	...	...	...	...	...
Greece	23.5	39.3	47.3	44.3	39.1	38.8	11.3	13.3	16.3	14.1	15.6	14.6
Italy	52.7	54.1	58.2	59.0	58.4	59.8	39.7	43.1	47.0	48.9	56.6	54.1
Luxembourg	46.7	44.0	51.5	61.8	61.4	57.7	...	40.4	41.6	41.9	42.4	47.7
Portugal	40.3	44.1	50.4	55.6	56.7	55.8	41.2	47.2	53.4	56.1	58.1	55.5
Spain	52.0	57.5	61.7	62.4	62.1	60.2	53.3	59.5	64.1	64.3	67.5	68.2
Imports												
Belgium	47.2	53.7	57.8	55.7	51.2	58.3	...	60.1	65.8	68.3	71.2	73.8
France ¹⁾	42.6	40.8	44.1	45.7	46.3	48.4	43.3	44.0	46.6	49.2	50.3	52.9
Germany	...	48.4	55.2	53.9	55.2	59.4	...	...	...	...	...	...
Greece	29.3	35.8	39.6	40.6	34.1	33.6	15.3	16.8	20.1	22.7	24.0	26.2
Italy	40.8	44.2	44.5	41.2	40.0	43.6	45.2	53.2	54.4	52.3	55.5	56.1
Luxembourg	47.2	31.9	41.9	50.0	43.8	38.8	...	27.7	34.3	30.2	31.2	29.8
Portugal	50.3	54.7	57.9	57.9	54.1	52.4	63.1	65.5	69.4	71.3	73.2	73.2
Spain	49.7	55.9	61.1	61.3	56.0	54.0	45.2	48.8	54.3	57.0	60.2	60.1

Sources: National central banks and ECB calculations.
Notes: Data for 2001 include trade settled in euro and in legacy currencies. Data refer to the use of the euro as a settlement currency, except for Germany, where the data refer to invoicing. For Germany, data on trade in goods reflect the average value of data collected in surveys carried out in the first and third quarters of 2002, 2003, 2004, 2005 and 2006 on behalf of the Deutsche Bundesbank. Data on services exclude travel, with the exception of Belgium.
1) Data for goods for 2006 are based on estimates.

Source: European Central Bank (2008).

In terms of being a store of value, the portfolio investment assets in debt securities (see Figure 15) and the currency shares in foreign exchange reserves (see Figure 16) may both serve as proxies. It is interesting to notice that portfolio investment assets in debt securities are very influenced by the region. The euro

¹⁶ European Commission, Economic and Financial Affairs. 2009. "The euro in the world." European Commission: Brussels.

has definitely a real attraction on the non-euro area EU members, but also plays a role in the diversification of assets for the U.S. and Asia (see Figure 15).

Figure 15
Currency breakdown of portfolio investment assets held
in debt securities at the end of 2006

(excluding euro area countries, ranked by region and size of total assets)										
	USD millions					Percentage of total debt securities				
	US dollar	Euro	Yen	Other	Total	US dollar	Euro	Yen	Other	Total
Non-euro area EU										
Sweden	35,704	59,055	1,096	38,311	134,166	27	44	1	29	100
Denmark	29,773	62,322	416	25,720	118,230	25	53	0	22	100
Cyprus	10,561	8,247	30	3,709	22,547	47	37	0	16	100
Poland	2,856	2,484	....	3,264	8,604	33	29	-	38	100
Hungary	284	848	0	134	1,266	22	67	0	11	100
Bulgaria	419	450	0	164	1,033	41	44	0	16	100
Romania	54	167	....	-	316	17	53	-	-	-
Other European Countries										
Switzerland	87,999	178,186	5,965	187,213	459,362	19	39	1	41	100
Israel	17,198	3,989	18	-	23,165	74	17	0	-	-
Russia	10,413	648	0	698	11,759	89	6	0	6	100
Ukraine	1	5	....	-	6	15	84	-	-	-
America										
United States	1,314,448	148,235	45,657	135,054	1,643,394	80	9	3	8	100
Venezuela	10,259	139	....	-	12,748	80	1	-	-	-
Colombia	6,373	90	....	926	7,389	86	1	-	13	-
Mexico	6,299	408	....	-	6,734	94	6	-	-	-
Uruguay	2,167	43	0	21	2,231	97	2	0	1	100
Costa Rica	1,283	22	....	-	1,305	98	2	-	-	-
Asia										
Japan	773,238	380,068	480,495	199,263	1,833,064	42	21	26	11	100
Korea, Republic of	41,517	3,871	600	714	46,702	89	8	1	2	100
Thailand	1,479	650	0	1,321	3,450	43	19	0	38	100
Malaysia	3,218	88	14	114	3,435	94	3	0	3	100
Indonesia	1,130	9	....	-	1,148	98	1	-	-	-
India	3	....	....	-	44	7	-	-	-	-

Source: European Central Bank (2008)

In terms of foreign exchange reserves, the U.S. dollar has faced an uninterrupted decline from 71% in 1999 to 63.9% in 2007, when the euro rose from 17.9% to 26.5% during the same time span (see Figure 16). Developing countries are among those which have increased their reserves in euro the most, from 18% in 1999 to around 30% in 2006. The euro is the second most important international currency behind the US dollar.

Figure 16
**Currency shares in foreign exchange reserves with
disclosed currency composition at current exchange rates since 1999**

		December					
		1999	2003	2004	2005	2006	2007
Global	USD	71.0	65.9	65.9	66.9	65.5	63.9
	EUR	17.9	25.2	24.8	24.1	25.1	26.5
	JPY	6.4	3.9	3.8	3.6	3.1	2.9
	GBP	2.9	2.8	3.4	3.6	4.4	4.7
	Other	1.8	2.2	2.0	1.9	2.0	2.0
Industrialised countries	USD	73.0	69.8	70.9	73.0	71.3	69.4
	EUR	16.5	22.6	21.4	19.6	21.0	23.1
	JPY	6.6	3.8	3.5	3.4	3.5	3.1
	GBP	2.2	1.6	2.0	2.2	2.6	2.8
	Other	1.6	2.2	2.3	1.8	1.6	1.6
Developing countries	USD	68.8	62.0	61.0	61.7	61.2	60.7
	EUR	19.4	27.8	28.3	27.8	28.1	28.4
	JPY	6.1	4.1	4.1	3.7	2.8	2.8
	GBP	3.6	4.0	4.8	4.8	5.7	5.8
	Other	2.1	2.2	1.8	1.9	2.2	2.2

Source: European Central Bank (2008)

The euro is increasingly used to issue government and corporate debt worldwide. At the end of 2007, the share of the euro in international debt markets was around one-third, while the US dollar accounted for 43.6% (see Figure 17).

Figure 17
Currency shares in gross issuance of international debt securities, breakdown by maturity

(narrow measure, i.e. excluding home currency issuance; as a percentage of the total amount issued)										
	Annual ¹⁾				Quarterly					2007 (total issuance) ²⁾
	2004	2005	2006	2007	2006 Q4	2007 Q1	2007 Q2	2007 Q3	2007 Q4	
a. Short-term international debt securities										
Euro	35.9	35.4	36.1	33.3	34.3	35.0	33.7	33.8	30.5	(761.8)
US dollar	40.8	38.1	38.8	43.6	40.7	40.0	42.8	45.4	46.3	(998.9)
Japanese yen	2.2	2.5	1.7	3.2	1.8	2.8	2.7	2.5	4.8	(72.9)
Total (incl. other currencies)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(2,290.8)
b. Long-term international debt securities										
Euro	35.7	29.0	27.9	28.4	27.3	29.5	27.5	23.5	33.0	(693.5)
US dollar	39.7	42.9	48.8	45.2	50.3	46.4	49.8	48.2	36.2	(1,125.4)
Japanese yen	6.4	6.3	4.2	5.8	4.6	3.6	5.4	7.5	6.5	(132.9)
Total (incl. other currencies)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(2,445.3)

Sources: BIS and ECB calculations.
Notes: Shares at current exchange rates.
1) Average quarterly percentage.
2) Amounts in USD billions.

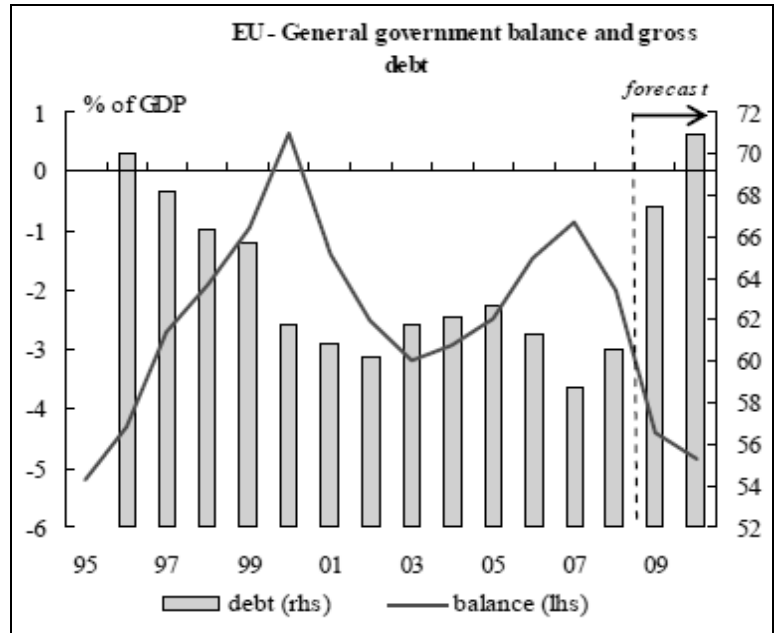
Source: European Central Bank (2008)

The Next 10 Years: The EMU through the Financial Crisis

The past ten years have been an incredible success for the euro. Relying on the foundations of the ECU, the euro is managed by a brand new central bank. The big and only challenge for the ECB in 1999 was to create and convince financial markets of its high reputation. In other words, the ECB had to be trustworthy. This challenge has been tackled with success. Every single country of the euro has benefited from this success. As mentioned, the interest on treasury bonds declined, and the spreads were never this low compared to Germany. In other words, countries with a higher risk premium before the euro were able to finance their deficits and then refinance their debts at a lower price (almost the same price as Germany). Not only does this help in lowering their debts, but it improves the quality of the debt.

In 2009, amidst the worst financial crisis since 1929, the ECB no longer has to worry about its credibility. And this is particularly true in an open world where the Fed injects liquidity almost for free, and where inflation does not seem to be the primary issue. Indeed, in a time of crisis, expectations are different. The question is no longer to find sound and inexpensive financing, it is to find financing. If the ECB does not change its priorities, the financial markets will come to believe that the only response to the crisis will come from fiscal and structural policy. In this context, one can expect that countries with higher deficits in normal times will now need to run even higher deficits. The question is to find liquidity: in a liquidity scarce world, these countries will pay more. Therefore, we can expect to see financial markets placing a higher risk premium on these countries for two reasons: (1) they may be short of liquidity as they are facing a higher risk of defaulting, and (2) since the SGP is no longer an effective control over public deficits (see Figure 18), nobody knows how big deficits will be, meaning that there is no longer any reason to not put a higher risk premium on some countries (Greece, Spain, Italy, etc.).

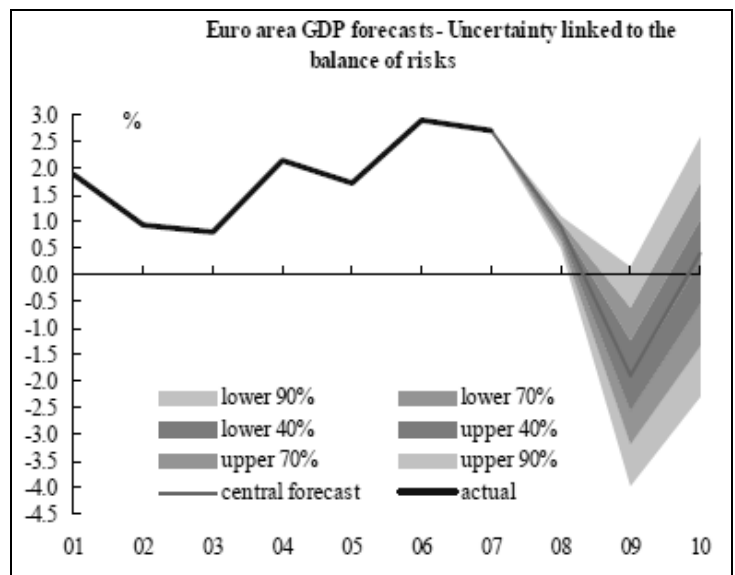
Figure 18
General gross balance and gross debt for the euro area.



Source: European Commission (2007)

Most of the next ten years will be constituted by challenges. Simulations for growth in 2009 and 2010 rely on various assumptions (see Figure 19). A lot of the answers depend upon which scenario will be chosen to rely upon what combination of monetary, fiscal and structural policies will be used.

Figure 19
Growth forecasts for the euro area



Source: European Commission (2007)

Broadly speaking, if monetary policy cannot be used as an answer—even partial—to guide Europe through the crisis, governments have no choice but to use their fiscal policies. This will have a snowball effect: not only will treasury bond interest rise due to the liquidity scarcity, but it will also rise because the fiscal discipline created by the SGP and the indirect policy-mix benefit associated with the SGP will no longer exist. Financial markets will demand a higher risk premium. Governments can also fall back on structural policies, but in tough times where unemployment is on the rise accompanied with social tensions, it is unlikely that governments will implement policies positively impacting Europe's competitiveness (lowering labor costs, etc.). Can this threaten the euro? Is it plausible that countries leave the euro? The answer is no. The euro still offers a protection in the form of a lower risk premium on debt. If countries were to leave, they would face a rise in their risk premium and would have an even tougher time at financing their deficits. It is in fact more plausible that some countries will join the euro, than the converse. Denmark? The United Kingdom? This is now possible. A likely scenario is a change in the ECB's monetary policy, or the emergence of a real coordination mechanism among fiscal policies instead of the "cooperation" mechanism embodied in the SGP, and maybe even a real economic government for the euro area based on the foundations laid down by the Eurogroup. The 2008 financial crisis may help Europe become singular.

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