

European monetary union

THE DARK SIDES OF A MAJOR SUCCESS

SUMMARY

This paper revisits the debates that have surrounded the launch of a unique experience: the adoption of a common currency among developed countries. A striking aspect of this history is that, pressed by what they correctly identified as a window of opportunity, policy-makers crafted this complex project in a short period of time, largely eschewing inputs from the academic profession. Academic research, in turn, developed its own views, which turned out to be critical of some key orientations, yet it generally recognizes that, in the end, the launch of the euro has been a major success.

Over time, many of the academic criticisms have been taken on board, but not yet fully. The monetary strategy has been slightly amended, but it remains the subject of disagreements between the European Central Bank and monetary economists. Events have confirmed that the Stability and Growth Pact was ill-designed; its reformulation goes some way to address some of the concerns but not all of them. Its ability to deliver fiscal discipline is in doubt.

Another look at the experiment highlights the gap between the principles laid out by those who designed the monetary union and the pragmatism that has prevailed thereafter. The resulting tension between principles and actions sometimes obscures the fact that the Eurosystem has acted wisely so far. The widespread perception that monetary policy is not as transparent as it should be and suffers from a lack of adequate democratic accountability is not just annoying. The general public, including politicians, sometimes blames the Eurosystem for Europe's poor growth performance since the adoption of the euro. This is unfair and could dangerously undermine the monetary union if the Eurosystem were to become the scapegoat for the slow and incomplete reforms that are needed to revigorate the euro area's economies.

— Charles Wyplosz

European Monetary Union: the dark sides of a major success

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1. INTRODUCTION

The idea of adopting a common currency in Europe has long been a mythical objective, one that you talk about but never take seriously. It suddenly emerged as a very real possibility in the aftermath of the Soviet Union collapse. France was concerned that Germany would divert its attention to the East and Germany formally needed the Allies, including France, to agree to its re-unification with East Germany. President Mitterrand linked his support to the establishment of a common currency and Chancellor Kohl accepted the deal.

With little experience to rely upon and limited theoretical backing, economists and policy-makers had to invent practically everything in little time. Policy-makers rushed to negotiate a detailed agreement, having no time for detailed economic analysis. They relied partly on the Werner report, which had been prepared in 1970 for a first failed attempt at monetary unification. The report's economic analysis, however, was both outdated and limited. Policy-makers updated the Werner report and filled in the gaps

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with very little involvement of professional economists, who were left to comment and criticize.

Six years after the launch of the euro, this paper revisits and evaluates the debates and controversies of the fifteen years after the discussions that led to the Maastricht Treaty. It focuses on three issues that I believe are the core issues: the convergence criteria (in Section 2), the Stability and Growth Pact (in Section 3) and the monetary policy strategy (in Section 5).¹ For each issue, the paper examines the controversies and tries to link them to the underlying theories. There is no attempt to be exhaustive (the literature is enormous) or impartial; I have been involved in too many of these controversies to be well placed to pass judgment. The final section presents some concluding remarks.

As the paper explores the influence of academic thinking on these issues, it also attempts to pass judgment on the controversies. As it turns out, academic economists were sometimes right, sometimes wrong. The paper also notes how policy-makers and researchers have influenced each other. Some, but not all, of the criticism has been taken on board. Conversely, the monetary union has deeply influenced the research agenda.

Before turning to the three core issues, I briefly review the role of economists and economic reasoning in the setting up of the euro's institutional and policy framework.

1.1. How the euro was won

The story starts in January 1987 with the last major Exchange Rate Mechanism (ERM) realignment. By then, the *franc fort* policy – the decision to use the exchange rate anchor to bring and keep inflation down, and therefore to align monetary policy with that of the Bundesbank² – was taking root and not just in France. Having vowed to avoid further realignments, the monetary authorities started to view a monetary union as more than a ritual project for another day. Sensing an opportunity and glowing from the successful adoption of the Single Act, Commission President Jacques Delors masterminded the setting up of a Committee to examine whether a monetary union was indeed feasible and, if so, how. The 1988 report of the Delors Committee, deeply informed by the Werner report, provided the blueprint of the Maastricht Treaty; it was formally accepted in Madrid in 1989.

In 1990, the Commission published *One Money, One Market*, the first articulated study of the costs and benefits of a common currency. It had been commissioned two years earlier from many academic economists as an input for the Delors report. But the first drafts were not yet due when the Soviet Union meltdown radically changed the situation. Delors saw that a door was open and decided to speed up his report.

¹ The other important issues that are not dealt with include the international role of the euro (see, e.g. Portes and Rey (1997)), the exchange rate policy and the relationship between the Eurosystem and Euro area member governments.

² This strategy was analysed by Giavazzi and Giovannini (1989).

While *One Money, One Market* came too late, it started to draw researchers into the issue. Several academic conferences followed – many early references quoted in this paper have been presented at these conferences – and soon a vigorous research programme developed. But academic research is inherently slow. The Delors Committee Report was transformed into the Maastricht Treaty before views from outside official circles could significantly affect key decisions.

This left research with the task of assessing the treaty. Most, but not all, US-based researchers saw monetary union in Europe as yet another bizarre idea that would never materialize. Most European-based economists, and a few US-based colleagues, thought it would happen. Of course, they debated whether it was a good idea or not, but they mostly tried to anticipate how it would work. The Optimum Currency Area (OCA) theory, long an appendix to international macroeconomics curricula, made a spectacular comeback. It played no serious role in the drafting of the Maastricht Treaty but served as an important tool to assess the project, including the controversial convergence criteria. This is the theme of the next section.

The Maastricht Treaty included an Excessive Deficit Procedure that was largely ignored until Germany pressed for quick negotiations that led to the stealth adoption of the Stability and Growth Pact. Section 3 presents the controversies that followed, and continue to rage to this day. Many, but far from all, economists considered that the pact was flawed and could not work. They recognized that governments suffered from a deficit bias, and proceeded to analyse the reasons, drawing on the growing field devoted to politico-economic analysis of policy-making. They accepted that there should be a way of stopping the public debt build-up, but debated whether this was a matter for the EU or whether it should be left to individual countries. They mooted many proposals, some modest, some radical. At the very least, they were not caught off guard when the pact was put in abeyance in 2003. Hopes that a new and greatly improved pact would replace the failed one were dimmed when only limited changes were adopted in 2005. The debate, now, is whether these changes have strengthened or fatally undermined the pact, and whether it matters at all.

Since the euro was launched, the debate on monetary union has naturally shifted from whether it could work to how well it is working. By and large, the Eurosystem has delivered. Inflation has been stabilized at a low level, fulfilling the Maastricht mandate. Growth has been disappointing but there are enough reasons to account for this poor performance without blaming the Eurosystem. On the other side, the Eurosystem is now criticized for what many scholars see as an outdated monetary policy strategy and for its tendency to seek protection from criticism through opaqueness. Like the US Federal Reserve, the Eurosystem has decided not to adopt the fashionable inflation targeting strategy. Instead, it initially chose to follow the time-honoured monetary growth rule championed, but not followed, by the Bundesbank. This rule is not working. The resulting gap between words and deeds, now amply documented, has become the subject of a lively literature on an old issue, democratic accountability. The Eurosystem has partly responded to criticism from academics and

from the financial markets. It has redefined its two-pillar strategy and has started to publish its inflation forecasts. Still, critics remain unconvinced and research continues.

2. OCA VERSUS NOMINAL CONVERGENCE

The Optimum Currency Area (OCA) theory asks the basic question – ‘When would nations gain economically from a single currency?’ – yet it played at best a marginal role in the official deliberations, which developed an entirely different approach. While the OCA theory can help in deciding whether a monetary union makes good economic sense, officials did not waste much time on this issue, which they saw as mainly political. They concentrated their efforts instead on mapping the process that would lead to the adoption of the single currency and on designing the corresponding institutions. It took a long time for the OCA theory to be taken seriously by policy-makers. This section examines how these two different logics developed and eventually interfered.

2.1. Why a monetary union? The Delors Committee Report’s logic

The Maastricht Treaty faithfully took up nearly all the proposals made in the Delors Committee Report. It is useful, therefore, to examine the Report’s reasoning on why a single currency should be adopted and how the OCA theory was dealt with.

The Delors Report goes at great length to present the monetary union as a natural, indeed unavoidable, consequence of the Single Act. One of its arguments is the impossible trinity principle. This principle notes that full capital mobility and exchange rate fixity remove the ability to conduct an independent monetary policy. Under the assumption that exchange rate stability is seen as a condition for the smooth working of the Common Market, it follows that all countries save one have lost *de facto* monetary policy independence. The monetary union proposal recognizes this fact and makes sure that no country will mistakenly challenge the impossible trinity principle.

While the impossible trinity principle is usually accepted, the report’s argument rests on two assumptions. The view that exchange rate volatility is harmful to trade integration has been a mainstay of official thinking ever since the late 1940s, much in line with the Bretton Woods deliberations. The UK is the only country that has gradually moved away from this view after the end of the Bretton Woods arrangement.³ Yet, until relatively recently, research had not been able to detect the assumed trade-enhancing effects of exchange rate stability. By the time the Delors Report was produced, the assumption was unsubstantiated. With hindsight, the Delors Committee was right. The result by Rose (2000), that monetary unions raise trade by 300%,

³ Sweden also changed view in the mid 1990s as it adopted the inflation targeting strategy.

has radically changed the debate.⁴ Since then, the question has not been whether a common currency deepens trade, but by how much. A whole literature has been devoted to the Rose effect, including Persson (2001) and Rose (2001), gradually bringing it down to a more realistic level. In his review of this literature, Baldwin (2005) suggests that a 15% effect is already measurable but throws doubt that the final effect will be massively larger.

The second assumption of the Delors Report is that a tightly pegged exchange rate cannot impose sufficient discipline on monetary policy; the implication is that national currencies cannot and should not be preserved. This assumption had been discussed earlier in the Werner report, which only identified some ‘psychological’ advantages (irreversibility and credibility) of the adoption of a common currency. The assumption was contradicted by the Dutch experience. Since the mid-1980s, the Netherlands had tightly linked its currency to the Deutschmark, in effect fully complying with the impossible trinity. There are many reasons why the Delors Committee decided that the ERM, even strengthened, would not be enough. These reasons are not made explicit in the report, but they are easy to guess.

First, the Committee must have harboured serious doubts that most European countries would be able to abide by the exacting requirements of a tight exchange anchor. Adopting the policy stance of the Bundesbank under each and every circumstance was a tall order requirement, especially for countries that did not have Germany’s tradition of putting price stability at the lexicographic top of their policy agenda.⁵ As it turns out, the ERM disintegrated in 1992–3 because member countries had blindly followed Germany’s tight monetary policy as it embarked on its unification process. This event illustrated the fact, later confirmed by the collapse of the Argentinean currency board, that even very hard commitments are never fully credible. A very tight fixed exchange rate commitment is just not as robust as no exchange rate at all. It remains to be seen whether no exchange rate at all is sufficiently robust to deal with violent shocks.

Second, it must have crossed some Committee members’ minds that adopting the Deutschmark, i.e. making the Bundesbank the *de facto* central bank for all of Europe, was not politically acceptable. It was hard to swallow for the other countries and it was bound to emerge sooner or later as a major divisive policy issue. In addition, if it were to assume this role, the Bundesbank would have had to adapt its policy to the situation in the whole of Europe. Its actions following unification in the early 1990s indicated that it was not prepared to act in this way, even if it meant putting the ERM under lethal stress.

Finally, the Commission was in a phase of ascendancy and, with the support of several countries that had long supported the idea of a common currency, probably spotted a golden opportunity to push for ‘an ever closer union’. The Delors Report

⁴ Baldwin (2001) had identified a favourable effect on FDI.

⁵ ‘Decision-making authorities are subject to many pressures and institutional constraints and even best efforts to take into account the international repercussions of their policies are likely to fail at certain times’ (Delors Committee Report, p. 15).

is indeed replete with statements to the effect that macroeconomic policy coordination is the natural counterpart to the Single Market: ‘The success of the internal market programme hinges to a decisive extent on a much closer coordination of national economic policies’ (Delors Committee Report, p. 15). As far as monetary policy is concerned, this means a monetary union.

2.2. Why a monetary union? The OCA logic

The Delors Report’s arguments can be seen as defensive. The Single European Act, especially the requirement that capital controls be definitely dismantled, threatened the ERM and exchange rate stability more generally. A common currency was seen as a defence against this threat. The report makes no reference to OCA reasoning except that it briefly recognizes the problem posed by asymmetric shocks: ‘Imbalances might also emanate from labour and other cost developments, external shocks with differing repercussions on individual economies, or divergent economic policies pursued at national level’ (Delors Committee Report, p. 15).

Nor did the Commission in its *One Market, One Money* major appraisal of monetary union show much interest in the theory: ‘The optimum currency area approach provides useful insights but cannot be considered a comprehensive framework in which the costs and benefits of EMU can be analysed. Empirical applications of this approach are scarce and hardly conclusive’ (European Commission, 1990, p. 46). In fact *One Money, One Market* took on board the key OCA argument in favour of a common currency, the reduction in transaction costs, arguing that it would boost European GDP by 0.5%. (The report includes a calculation of what would be left of 10,000 ECU worth of Belgian francs if it were changed successively into each of the ten currencies of the member countries at the time, and then back into Belgian francs at the end; the answer – barely half.) This benefit from a common currency, however, is OCA’s maintained hypothesis. The theory’s core focus is the identification of the costs of a common currency, factors that were largely ignored by the Commission.

It is true that the OCA theory had not been made operational by the time the Delors Committee had been set up. In addition, its emphasis on the conditions under which a currency area is optimal attracted attention to the costs of less-than-optimal circumstances, a message that officials were not keen to broadcast.

Two problems stood in the way of making OCA theory the centrepiece of the Delors Report and the deliberations that followed its acceptance. First, the OCA theory had not been developed in a formal way. It was rich but complex. As a result, there were doubts about exactly what it meant. Formalizing the theory was not easy and took time. Bayoumi (1994) and Ricci (1997) each illustrated some aspects of the theory, as Alesina and Barro (2002) did later. The second difficulty was to use the theory’s insights to reach practical conclusions. Following Cohen and Wyplosz

(1989), Eichengreen (1990) and de Grauwe and Vanhaverbeke (1993), Bayoumi and Eichengreen (1993) started to explore the size and nature of shocks affecting Europe to derive an OCA index that does a good job at explaining which countries have joined the Euro area (Bayoumi and Eichengreen, 1997).

The key message from OCA theory is that labour mobility, trade openness and product diversification make asymmetric shocks either unlikely or not destabilizing. Several studies started to explore these aspects one by one. Applying the methodology developed by Blanchard and Katz (1992) to study labour mobility in the US monetary union, Decressin and Fatas (1995) provided a sharp and depressing contrast of European labour market responses to asymmetric shocks. Krugman (1993) also poured cold water by asserting that product diversification would decline following the launch of the euro. This triggered a lively debate which culminated with the opposite suggestion by Frankel and Rose (1998) that Europe will increasingly fulfil the OCA criteria once it adopts a common currency.

Quite rapidly, openness to trade came to be recognized as the only unquestionably fulfilled OCA criterion. The labour mobility criterion is not even remotely satisfied, a conclusion made worse by a high degree of price and wage rigidity. This message was not pleasing to officials, and dutifully ignored for many years.

Since Europe is not an optimum currency area, it has been impossible to draw sharp conclusions. Facing a glass half full and half empty, commentators have either interpreted the project on the basis of their own prejudices or brought up other criteria. Reviewing this literature, Baldwin and Wyplosz (2003) identify three additional OCA criteria.

The first one is the existence of fiscal transfers to deal with asymmetric shocks. A country that undergoes an adverse asymmetric shock is bound to suffer, and could possibly come to regret the loss of the exchange rate. The other currency union members can mitigate these costs by temporarily providing resources to the ailing country. A small literature has pointed out that tax systems provide automatic transfers in existing currency unions; given its tiny and rigid 'federal budget', Europe does not do well on this dimension.

The second criterion is homogeneity of preferences regarding the use of monetary policy. The idea is that broad agreement over the aims of the common central bank should make its decisions more easily accepted in the presence of asymmetric shocks that differentially affect member countries.

The third criterion is political. If the currency union is seen as part of a broader project, costs that arise because Europe is not an OCA will be tolerated. There is general agreement that broader political aims at the top played a key role in the decision to launch the monetary union. There is much less agreement, however, on the necessary underlying support at the grass-root level.⁶

⁶ For a sample of this literature see Cohen (2000), Feldstein (1997), Frieden (1998), King (1998), Wyplosz (1997).

2.3. The convergence debate

The Delors Report includes detailed entry condition requirements. Economists familiar with the OCA theory would have expected that the entry criteria would identify labour mobility, labour market flexibility, trade openness and trade diversification as entry criteria. These ‘real’ criteria are nowhere to be found in the list of ‘nominal’ criteria that, after considerable debates, recounted by Bini-Smaghi *et al.* (1993), were incorporated into the Maastricht Treaty and came to be known as the Maastricht convergence criteria. The declared intention was to restrict monetary union admission to countries that had demonstrated their commitment to a ‘culture of [price] stability’, dutifully ignoring output and employment stability, which lies at the heart of the OCA theory. Arguably, this omission is the monetary union’s original sin.

The view that admission criteria are needed has been highly controversial from the start, both among policy-makers and economists. For reasons I am unaware of, the controversy has been described using the rather bizarre labels ‘economists’ versus ‘monetarists’. The economist camp was represented by Germany. They wanted a long convergence process, without any set date for launching the common currency, and a small initial group of (price) stability-oriented countries. The monetarist camp was associated with France. They argued that nominal convergence was not needed and they called for a tight and unconditional agenda.

The logic of the economist camp is articulated in European Commission (1991). The coronation theory, as it was sometimes referred to, holds that a common currency is the final step in a long process during which national monetary policies become increasingly aligned. When they have become identical and national currencies are no longer distinguishable, to the point where markets spontaneously equalize interest rates, monetary union can happen, merely ratifying what already exists. Two main arguments were offered to reject any earlier adoption of a common currency. First, inflation is presumed to be sticky. This means that, for a while, low-inflation countries will import inflation from non-converged countries. It also means that high inflation countries will see their nominal interest rates suddenly decline. The result will be very low – possibly negative – real rates that will boost demand and further fuel inflation. The second argument is political. Countries that have not adopted a (price) stability culture will not support a common monetary policy stance once they have a representative in the common central bank.

The monetarist camp – for an early statement see Begg *et al.* (1991) – dismisses the previous arguments on the basis of the theory of policy regimes, backed by evidence provided, for example, in Sargent (1982). Under this view, once a new currency is established, past expectations become irrelevant and inflation is not sticky at all.

This view attracts attention to the credibility of the central bank, since it will shape expectations. A credible central bank should promptly deliver low inflation in all

member countries, irrespective of their past performance.⁷ The comments on Bini-Smaghi *et al.* (1993) by Schulmann (1993) indicate that, indeed, during the negotiations that led to the Maastricht Treaty, Germany (and the Netherlands) emphasized the importance of policies and convergence while other countries – France and Italy, it seems – were focusing instead on institution building. The rules-versus-institutions divide is one prism that illustrates the debate on the convergence criteria; it also plays an important role in the debates about the Stability and Growth Pact, as explained in Section 3.

The implication of the monetarist view is that the focus should be on establishing strong institutions, not on demanding entry conditions and not on a lengthy convergence process. The argument is that pre-entry disinflation is slow and costly while it would be nearly immediate and essentially costless if achieved after entry into the monetary union.

In the end, the Maastricht Treaty went a long way towards the economists' or German view. The most that the monetarist camp achieved was to obtain a final date by which the third stage – the irrevocable fixing of exchange rates – would start.⁸ Yet, if the economists won at the negotiating table, the monetarists carried the day on the ground. As Baldwin *et al.* (2001) point out, when the time came to decide which countries would join the Euro area, of the 11 countries accepted only Luxembourg met all the criteria. The debt threshold was met by only four countries, two countries (Finland and Italy) had not spent two full years in the ERM and, anyway, the definition of the 'normal' band of fluctuation was left hanging following the enlargement of margins of fluctuation after the exchange rate crisis of 1992–3.

2.4. Reality checks

It is impossible to use hindsight to pass judgment on most of these once heated debates. For instance, we cannot test the view that inflation would have promptly converged at no output cost had the third stage started before convergence. The best that can be done is to assemble circumstantial evidence that bears on the questions discussed above.

2.4.1. The defensive logic. The central thesis of the Delors Report, and the economic reason behind the adoption of the Maastricht Treaty, is that the only way to preserve exchange rate stability in the presence of full capital mobility is to adopt a common currency; this is an implication of the impossible trinity principle. The ERM crisis provided a vivid confirmation of the relevance of this thesis, but is the solution working?

⁷ Section 4 returns to the question of the constitution and mandate of the central bank.

⁸ There exist many studies that describe the way Germany dominated the negotiations, after it reluctantly accepted to support the monetary union. A good and concise presentation is in Kenen (1995).

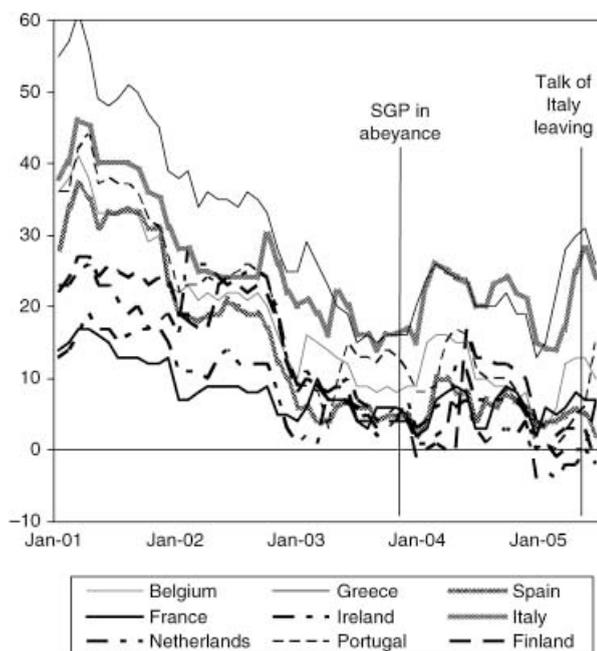


Figure 1. Ten-year government bonds: spreads relative to Germany (b.p.)

Source: European Central Bank.

Ever since 1999, when the Eurosystem took over, there has been no monetary tension within the Euro area. A good example is the quasi-absence of spreads among long-term interest rates, as can be seen from Figure 1. These spreads capture the country risk, that is, the probability of a default, and the exchange rate risk. Since all public debts are currently denominated in euros, the exchange risk is nil unless the country is expected to leave the Euro area, which is what we are interested in. (Even then, it matters what would happen to the denomination of the public debt. There is no exchange risk if a country leaves the euro but keeps its debt denominated in euro. If the country re-denominates its debt in its newly re-established currency, then there is a currency risk.) How can these risks be separated?

How can we evaluate the residual currency risk? One approach is to estimate the spread associated to the country – or debt default – risk and ascribe the remaining spread to the currency risk. A crude way of doing so is to estimate how debt levels affect the spread and interpret the measured effect as country risk.⁹ Using spreads vis-à-vis Germany measured in June 2005, a simple regression across Euro area members yields:

$$\text{spread} = 4.616 - 0.255*\text{debt} + 0.004*\text{debt}^2 \quad \text{Adj. } R^2 = 0.89$$

$$(3.647) \quad (0.124) \quad (0.001)$$

⁹ A more elaborate study by Cordogno *et al.* (2003) shows the role of worldwide risk factors operating via debt size.

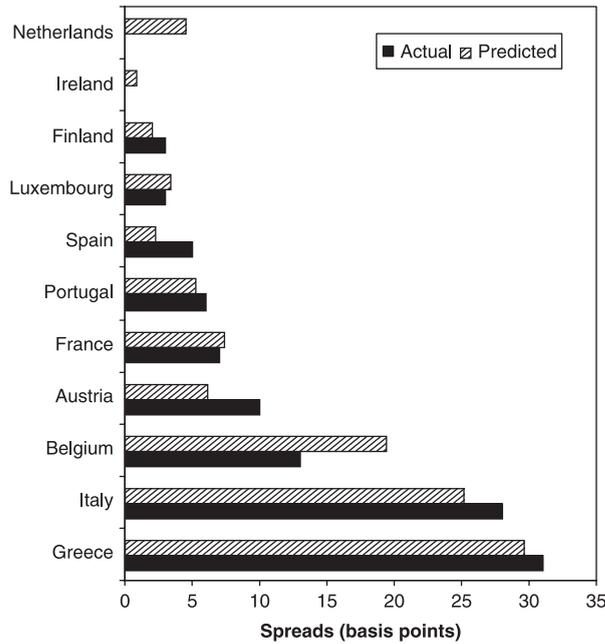


Figure 2. Actual and predicted spreads (b.p.)

Source: Author's calculations.

where *debt* is the debt to GDP ratio (in percent) and standard errors are shown underneath. The non-linearity – the estimated coefficients imply that the spread is growing for positive debt levels – is important to the view that markets exercise a disciplinary influence on budgetary policies, as argued in Bayoumi *et al.* (1995). Figure 2 displays the actual spread and the spread predicted by the regression. The difference between the actual and predicted spreads is interpreted as the currency risk. It is negligible, never exceeding 5 basis points. This suggests that the markets do not currently expect any exit from the Euro area.¹⁰ This is far from a ‘proof’, but the analysis suggests that the market sees monetary union as rock-solid; this vindicates the defensive view of the Delors Report.

Further evidence can be found by looking at the evolution of spreads. They have narrowed since 2001, an indication of increasing credibility of the euro. The main setback has come in the Spring of 2005 when, following the rejection of the Constitution draft, a number of observers have started to ask whether the Euro area could break down. Then an Italian minister publicly called for his country to actually abandon the euro and reintroduce the lira. The Italian spread doubled, from 14 basis points in March 2005 to 28 in June; the average spread jumped from 4 to 10 basis points.

¹⁰ European Commission (2004) and ECB (2005) indicate that output and inflation dispersion have declined within the Euro area, an indirect indication that asymmetric shocks have been subdued so far.

This episode confirms the previous conclusions. Yes, the markets do react to important events but no, they do not take seriously the euro break out hypothesis. Not only is the 28 spread on Italian debt very low, it is still much below the level of early 2001.

2.4.2. The OCA logic. If Europe is not an OCA and yet decides to create a common currency, there will be economic costs. If these costs are high and the political criteria are not met, the undertaking will fail. Doomsday predictions are entertaining,¹¹ but is there any evidence six years on?

The economic criterion that is definitely not satisfied is the labour market ability to deal with asymmetric shocks. The implication is that unemployment should worsen as the result of the adoption of a common currency when asymmetric shocks occur. Presumably, this would hurt growth. In addition, it would complicate the task of the central bank since monetary policy could not deal with the diverging implications of asymmetric shocks; put differently, one size would not fit all.

Six years on, it is still too early to formally determine whether the Euro area fails the OCA, that is, is imposing costs on Europe. The difficulty is that, in order to witness significant costs, we need to observe both asymmetric shocks – or common shocks with asymmetric effects – and distorted reactions to these shocks because of poor labour market performance. I therefore ask a simple question: if we compare the years since the adoption of the euro, is there any evidence that some countries display an obviously worsening performance? To do so, I look at the three indicators of macroeconomic performance: GDP growth, inflation, and unemployment. For each country Table 1 presents the difference for each indicator between the country in question and three comparator country groupings: the whole Euro area, the rest of Europe (non-Euro area Europe) and the rest of the OECD (non-Euro area OECD). This is done over two periods, the pre-euro years (1990–8) and the euro years (1999–2005). The Euro area column presents the unweighted average of national observations (thus ‘Euro area relative to Euro area’ shows the difference between the average country and the area’s average). The table also shows the difference of these differences across the two periods. As a rough gauge of whether the observed differences are quantitatively significant, for each indicator the table provides the standard deviation over the whole period 1990–2005. In what follows, I consider that a change that exceeds one standard deviation is meaningful, a low threshold that errs on the side of identifying shocks which are not really as significant.¹²

The comparison with the Euro-area as a whole – displayed in the first rows in each panel – is meant to identify asymmetric shocks. Greece is the only country found to have undergone asymmetric shocks for all three variables: the shock is favourable for

¹¹ For an early study, see Arrowsmith (1998). For a prediction of impending war in Europe, see Feldstein (2000).

¹² The usual two standard deviation threshold is only found in the case of unemployment in Greece. Given the small number of available post-euro observations, the two standard deviation threshold may be too conservative. Instead of measuring the standard deviation of each variable, one could use the standard deviation of the differences vis-à-vis the comparator group. It turns out that it makes little difference.

Table 1. Euro area relative performance 1999–2005

		Austria	Belgium	Germany	Spain	Finland	France	Greece	Ireland	Italy	Luxembourg	Netherlands	Portugal	Euro area ^a
Annual GDP growth rates														
Relative to Euro area	1990–1998	0.2	-0.4	-0.2	0.1	-1.3	-0.8	-0.6	4.0	-0.9	2.4	0.5	0.3	0.3
	1999–2005	0.1	0.2	-0.6	1.3	1.0	0.3	2.1	4.7	-0.7	2.6	-0.3	-0.4	0.8
	Difference	-0.1	0.6	-0.5	1.2	2.3	1.1	2.7	0.6	0.2	0.2	-0.8	-0.8	0.6
Relative to non-Euro area Europe	1990–1998	0.6	0.0	0.2	0.4	-0.9	-0.4	-0.3	4.4	-0.5	2.7	0.8	0.7	0.7
	1999–2005	-0.5	-0.4	-1.3	0.7	0.4	-0.3	1.4	4.0	-1.3	2.0	-0.9	-1.0	0.3
	Difference	-1.1	-0.4	-1.4	0.2	1.3	0.1	1.7	-0.3	-0.8	-0.8	-1.8	-1.7	-0.3
Relative to OECD non-Euro area OECD	1990–1998	-0.1	-0.7	-0.5	-0.3	-1.6	-1.1	-1.0	3.7	-1.2	2.0	0.1	0.0	0.0
	1999–2005	-0.8	-0.8	-1.6	0.3	0.0	-0.6	1.1	3.7	-1.7	1.6	-1.3	-1.4	0.0
	Difference	-0.7	0.0	-1.1	0.6	1.7	0.5	2.1	0.0	-0.4	-0.4	-1.4	-1.4	0.0
	S.D.	1.1	1.2	1.7	1.4	3.4	1.2	1.7	2.8	1.1	2.5	1.4	2.1	1.5
Annual inflation rates (GDP deflator)														
Relative to Euro area	1990–1998	-0.6	-0.4	-0.2	1.9	0.0	-0.8	8.8	0.2	2.0	0.3	-0.6	4.1	1.2
	1999–2005	-0.3	-0.1	-1.1	1.9	-0.5	-0.4	1.6	1.9	0.5	0.4	0.9	1.4	0.5
	Difference	0.3	0.3	-0.9	0.0	-0.5	0.4	-7.2	1.7	-1.5	0.1	1.5	-2.7	-0.7
Relative to non-Euro area Europe	1990–1998	-1.2	-1.0	-0.8	1.4	-0.6	-1.3	8.2	-0.4	1.4	-0.3	-1.2	3.5	0.6
	1999–2005	-0.7	-0.5	-1.5	1.6	-0.9	-0.8	1.2	1.5	0.1	0.0	0.5	1.0	0.1
	Difference	0.5	0.4	-0.7	0.2	-0.3	0.5	-7.0	1.9	-1.3	0.3	1.7	-2.5	-0.5
Relative to OECD non-Euro area OECD	1990–1998	-1.0	-0.8	-0.5	1.6	-0.4	-1.1	8.4	-0.2	1.6	0.0	-1.0	3.7	0.9
	1999–2005	-0.2	-0.1	-1.0	2.0	-0.5	-0.3	1.7	2.0	0.6	0.5	1.0	1.4	0.6
	Difference	0.8	0.7	-0.5	0.4	-0.1	0.8	-6.7	2.1	-1.0	0.5	2.0	-2.3	-0.3
	S.D.	1.1	0.8	1.4	1.4	1.7	0.7	5.5	1.8	1.9	1.1	1.0	3.2	1.1
Unemployment rates														
Relative to Euro area	1990–1998	-4.7	-1.3	-2.2	5.6	2.3	1.3	-0.6	2.7	0.8	-7.4	-4.0	-4.1	-1.0
	1999–2005	-3.5	-1.1	-0.3	2.4	0.5	1.0	2.5	-4.2	0.8	-5.3	-4.8	-3.3	-1.3
	Difference	1.2	0.2	1.9	-3.2	-1.7	-0.3	3.1	-6.9	0.0	2.0	-0.8	0.7	-0.3
Relative to non-Euro area Europe	1990–1998	-2.0	1.3	0.5	8.2	4.9	3.9	2.0	5.3	3.4	-4.7	-1.3	-1.4	1.7
	1999–2005	0.4	2.8	3.5	6.3	4.4	4.8	6.3	-0.4	4.6	-1.5	-1.0	0.5	2.6
	Difference	2.4	1.4	3.1	-2.0	-0.6	0.9	4.3	-5.7	1.2	3.2	0.4	1.9	0.9
Relative to OECD non-Euro area OECD	1990–1998	-0.4	2.9	2.0	9.8	6.5	5.5	3.6	6.9	5.0	-3.1	0.2	0.2	3.3
	1999–2005	0.3	2.6	3.4	6.2	4.3	4.7	6.2	-0.5	4.5	-1.6	-1.1	0.4	2.4
	Difference	0.7	-0.3	1.4	-3.7	-2.3	-0.8	2.6	-7.4	-0.5	1.5	-1.3	0.2	-0.8
	S.D.	0.5	1.2	1.2	3.0	3.7	1.2	1.4	4.5	1.4	0.9	1.5	1.3	1.1

^a Unweighted average of Euro area countries.

Source: *Economic Outlook* (OECD, 2005, p. 2).

growth and inflation, unfavourable for unemployment, suggests a labour-market shock rather than a not-OCA effect. Labour market shocks are also visible in Ireland and Spain, where the situation has improved, and in Austria, Germany and Luxembourg, where the shocks have been adverse. Differences between the average Euro area country and the Euro area as a whole (last columns and rows in each panel) confirm the absence of serious asymmetric shocks.

While the Euro area has not undergone serious asymmetric shock, it could still be that a one-size-fits-all monetary policy has led to a deterioration of the economic performance of some member countries. This is what comparisons with the rest of Europe and with the OECD area are meant to examine. Except for Greece, there are few indications that this has been the case. The relative average country performance (last columns) has not changed significantly. Ireland stands out with more inflation and less unemployment. The Netherlands has had relatively more inflation. The unemployment situation has improved in Spain and deteriorated in Austria, Germany and Luxembourg.

Overall, these results can be seen as vindicating both side of the argument. Those who think that the OCA criteria are important will focus on the unemployment situation. The lack of labour mobility and the rigidity of the labour markets imply that unemployment rates are bound to diverge in response to asymmetric shocks. They will observe that, even though large asymmetric shocks have not yet occurred, smaller ones have already resulted into meaningful changes in the unemployment rates. Those who think that the OCA criteria do not matter much will note that these diverging unemployment rate changes are small and not that widespread, with no significant impact on growth and inflation.

Yet another interpretation of these results is that the OCA theory has not yet been put to the test because the much feared asymmetric shocks have not materialized since the adoption of the euro. An alternative view is that the OCA theory predicts that asymmetric shocks are unlikely in the Euro area since the McKinnon and Kenen criteria are well satisfied. It is too early to tell.

2.4.3. The convergence logic. All the countries that wanted to adopt the euro ended up meeting the Maastricht requirements, with a two-year delay for Greece. There have been reports of data doctoring, especially regarding the budgetary criteria, yet there is no doubts that a serious effort was made by all countries in the run up to the euro's introduction. Has convergence been painful? Figure 3 shows that the convergence years 1992–8 have been accompanied by a worsening growth performance of the Euro area as a whole, especially in comparison with the overall OECD area. (Note that Table 1 shows that this conclusion does not apply to the average Euro area country; the reason is that the three large countries, France, Germany and Italy, which account for 64% of the whole Euro area GDP, are those where the growth performance has most deteriorated, while it has improved in many of the smaller countries.)

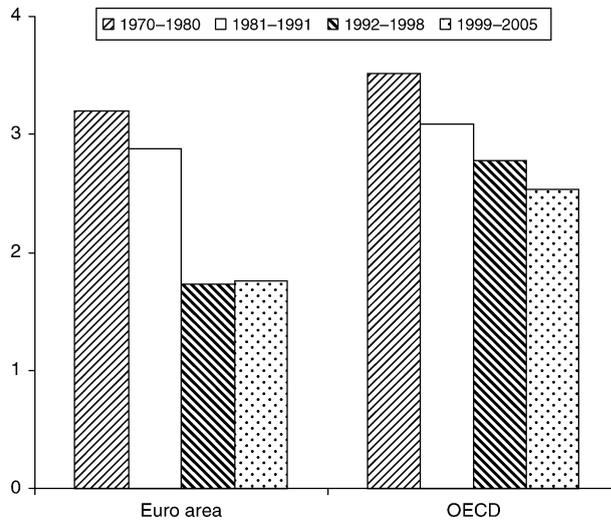


Figure 3. Average annual growth rates

Source: Economic Outlook, OECD.

There is no way of observing what would have happened if the euro would have been launched without the Maastricht convergence conditions. Growth rates may have declined for many reasons other than disinflation and budgetary consolidation. Yet, there seems to be general agreement that monetary policy has been tight and that fiscal policy has been restrictive. This then raises the question of what has been achieved.

It is true that inflation was still high in the early 1990s and public debts were not stabilized. Monetary union or not, these are issues that had to be addressed. The future Euro area member countries were not different from most other OECD countries in that respect, however. All countries faced a similar challenge and dealt with it, Maastricht or not. The first question, therefore, is whether the convergence requirements made a difference: did they stiffen resolve and did they make the stabilization process more efficient because it was more credible?

Figure 4 presents the outcomes in the non-emerging market and non-transition OECD countries. The right-hand chart relates the change in inflation to the average growth rate during the Maastricht years, a measure of the sacrifice ratios. It is fairly clear that the future Euro area member countries did not achieve a more efficient disinflation. Overall, disinflation is the same in the Euro area as in the whole of the OECD zone and at a slightly larger – but not significantly so – output loss. The left-hand chart offers the same comparison for budgetary stabilization. It relates the change in the budget balance to average annual growth. The Euro area achieved a slightly larger budget improvement with more output loss, the differences being again not significant. How to interpret these observations?

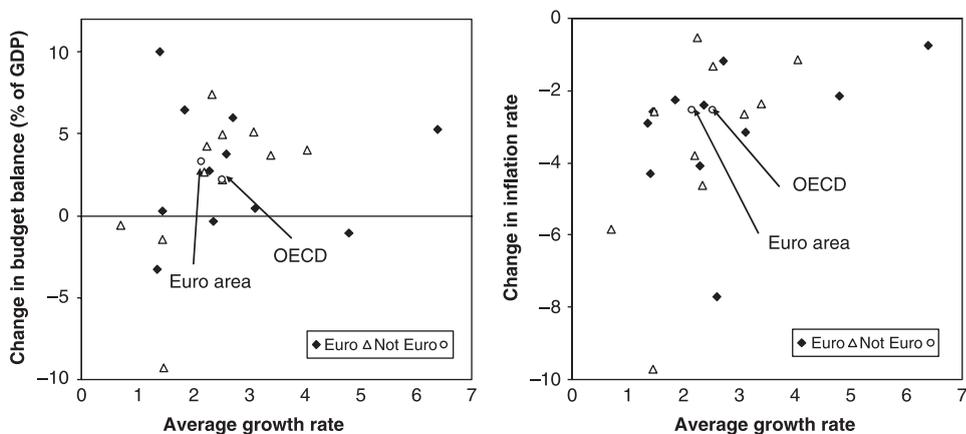


Figure 4. Disinflation and budgetary stabilization (1991 to 1998)

Source: Economic Outlook, OECD.

One interpretation is that that forced convergence did not have any effect, neither on the outcome nor on the way it was achieved. Another interpretation is that, given the Euro area countries' labour market rigidities, disinflation and public deficit reduction would have been costlier without the credibility-enhancing effect of the Maastricht convergence requirement. Assessing these interpretations would require an in-depth study.

The 'monetarist' view held that disinflation, where required, would have occurred after adoption of the euro at no cost; in this view the Maastricht criteria were not just unnecessary but the source of a painful growth slowdown, which has indeed materialized. The 'economist' answer is that these costs were pedagogically useful to acquire a culture of (price) stability (see Stark, 2001). In this view, the costs are front-loaded and the benefits spread over decades to come. The 'economists' are likely to point to the low-inflation performance of the Euro area since 1999 as a vindication of their view. This debate on how to interpret the facts has, in fact, been anticipated, as the exchange between Bini-Smaghi *et al.* (1993) and Schulmann (1993) indicates. Back then, the 'monetarists' predicted that low inflation would follow from the adoption of good central banking institutions, not as the result of wisdom acquired through pain. The relapse into budgetary indiscipline after the launch of the euro shows that when institutions are poorly designed – the Stability and Growth Pact in this instance (see Section 3) – the gains from past sacrifices can be quickly dilapidated.

In the end, the verdict on convergence remains controversial. There is little doubt that it has been costly and no evidence that it has been helpful, even in the limited sense of providing an incentive to 'clean the house'. The controversy continues now that the new EU members have to go through the same exercise (see Begg *et al.*, 2003).

3. THE STABILITY AND GROWTH PACT

3.1. Why a Stability Pact?

Formally, the Stability and Growth Pact (SGP) is just the implementation of the Excessive Deficit Procedure (EDP) adopted in the Maastricht Treaty and already introduced in the Delors Report. What remained to be done was to make it operational. It took just a few months to negotiate and agree upon the pact.¹³ The contrast between the speedy adoption of the pact and the controversies that it has aroused is striking. The EDP can be justified in many ways.

3.1.1. Valid principles. From an economic viewpoint, the underlying logic is rooted in strong evidence that large inflations are always the consequence of runaway deficits that lead to a public debt that cannot be financed anymore through normal market borrowing. Desperate governments then naturally impose monetary financing upon their central banks. Given the agreed-upon emphasis on price stability, it was indeed necessary to guarantee that the central bank would never be drawn into an inflationary process.

From a political economy viewpoint, there is a clear free-riding risk. A country can well find it convenient to allow its debt to rise to the point where default becomes unavoidable. It would be tempting then to blackmail the other Euro area members and the Eurosystem into providing support. The game had been played – unsuccessfully – by the City of New York in the late 1970s and the lesson had been learnt. In fact, many federal states impose some form or another of limits to sub-central government deficits (see von Hagen, 1993). The EU is not a federal arrangement, but the Euro area is fundamentally a federal construct.

Taken together, the economic and political-economy arguments correspond to the issue of fiscal versus monetary dominance as developed in Canzoneri *et al.* (2001). The question is who – the central bank or the fiscal authority – eventually constrains the other. The Delors Committee, dominated by central bankers, reversed the fiscal dominance situation that had long prevailed in most European countries – Germany being a notable exception – and sought to establish a regime of monetary dominance.

In addition, there was a logical implication of the Maastricht convergence criteria. Upon entry all countries had to satisfy the two conditions of a deficit of less than 3% of GDP and of a debt below 60% of GDP (or moving in that direction). It would make little sense to then allow Euro area member countries to relax their efforts, and possibly reverse track and indulge again in fiscal indiscipline once the constraint is not binding anymore. The EDP was clearly imagined as a continuation of the convergence criteria (the three others being automatically satisfied once in the monetary union).

¹³ For an account of the negotiations, see Chapter 2 of Buti and Franco (2005).

These are all valid reasons to set up some fiscal discipline arrangement, the last one being only justified if one concludes that the convergence criteria are needed. In fact, it is the last one that seems to have dominated discussions among policy-makers. Yet several other reasons figured prominently when the pact was being mooted; they are less valid.

3.1.2. Policy coordination. One view, already present in the Werner and Delors reports, starts with the obvious observation that policy coordination is desirable. Within the Euro area, monetary policy is fully centralized, but that leaves open two coordination issues: coordination between monetary and fiscal policy, and coordination among national fiscal policies. This general observation raises many questions. To start with, is coordination always welfare-improving? This is presumed to be the case in the absence of information asymmetries and strategic behaviour, two features that cannot be easily assumed away. In addition, external commitments that constrain the conduct of national fiscal policies challenge a key element of sovereignty. In every country, the relationship between the government and the parliaments is politically complex, unlikely to easily accommodate external influences.

These observations imply that fiscal policy coordination may or may not be desirable *per se*. Since it is bound to be economically and politically costly, its presumed benefits must be weighted against its likely costs. The benefits are based on spillovers that are poorly known (a recent effort at quantification is in Beetsma *et al.*, 2005), and the costs may be impossible to quantify, yet they are not negligible. Finally, coordination is one thing, binding fiscal rules quite another one. Beetsma *et al.* (2001) explore whether the SGP can be seen as a form of coordination; they give a guarded positive answer but we know from the old debate on rules versus discretion – see below – that this cannot be generally true.

Another view, which also goes back to the Delors Report, is that misguided national fiscal policies may create hidden national balance of payment problems, possibly spilling over the union's overall situation and affecting the common exchange rate. A first objection is that national balance of payment problems are self-correcting within a monetary union, along the lines of the old Hume's mechanism. A second objection is that the impact of national fiscal policies on the euro exchange rate is theoretically uncertain and, except for extreme cases, likely to be empirically negligible.

Finally, it has been argued that one country's budget deficit raises the interest rate in the whole area. This is a serious analytical mistake. The assertion is undoubtedly inspired by the crowding out result that all students of macroeconomics have been presented with. Unfortunately, it does not apply to the Euro area. To start with, the crowding result is derived in a closed economy context where public borrowing competes for domestic savings with private borrowing. In an open economy, they compete for world savings. If the economy is large, interest rates may indeed rise. If the economy is small, the pressure on world interest rates is likely to be negligible. No Euro area country qualifies as large enough to weigh in on world interest rates

and, indeed, it has proven impossible to empirically detect a crowding out effect for these countries. What if deficits are seen as a signal of potential default? In this case, it is the interest rate applied to the misbehaving country debt that should rise, not the area's overall rate. This is precisely the reason why interest rate spreads are examined in Section 2.4 above. The argument simply fails to distinguish between country risk and exchange risk. What remains is the possibility that the markets could see a debt default as a likely source of euro depreciation. Worrisome deficits could then lead markets to include an exchange risk premium. This is a possibility, indeed, but a very remote one as the magnitude of the spreads suggests.

3.1.3. Deficit bias. The main reason for adopting the SGP is the evidence that governments have shown themselves to be subject to a deficit bias. Correcting this bias is highly desirable, unavoidable indeed, but what has this to do with the monetary union? Stark (2001) argues that the deficit bias is incompatible with the general stability culture that must lie at the basis of the monetary union. Implicitly, therefore, this is a restatement of the fiscal dominance hypothesis, but that is not the way the argument has been formulated by the SGP proponents. They do not explicitly relate deficits and debts to inflation; they only broadly appeal to macroeconomic discipline as a necessary attribute of Euro area members. As argued above, this is too weak a reed to justify such an economically and politically complex undertaking as the SGP.

The deficit bias is unquestionable; it is enough to observe the evolution of public debts over the last three decades. The observation that governments are not constrained enough to resist the deficit temptation is equally incontrovertible. The conclusion that the adoption of the euro offers a chance of dealing with the deficit bias through externally imposed rules is open to discussion, however. Using Euro area membership as a pretext to deal with a correctly diagnosed problem raises deep questions. The deficit bias is the outcome of a democratic process that fails to impose discipline on current generations at the expense of foreign generations within the same country (see e.g. Alesina and Tabellini, 1996). First best policy prescriptions ought to address the political process failure directly, that is, they should aim at instituting adequate *domestic* political institutions. Using Europe as an instrument to solve purely domestic issues directly is unlikely to be a second best solution. It pits electorates against Europe, portrayed as a benevolent dictator. The problem is that benevolent dictators are not necessarily popular; externally imposed fiscal discipline puts the European integration process in jeopardy.

3.1.4. Assessment. In the end, the two valid reasons to limit deficits are (1) the link between unsustainable debts and inflation and (2) the free-rider problem. The solution must be to cut the link between debt financing and monetary policy and to ensure that no government will not be able to successfully blackmail other governments and the central bank. Three provisions of the Maastricht Treaty directly address these requirements. The central bank is strictly forbidden to finance budget deficits, i.e. it

is not allowed to operate on the primary debt market. In order to ensure that it will abide by these legal requirements, it has been made strongly independent from governments. Finally, a no bailout clause (Art. 103) fully shields governments and all official institutions (including the Eurosystem and the Commission) from any one authority's liabilities. These are strong and highly credible safeguards. Why then the EDP, and therefore the SGP? Either policy-makers have grave doubts about the enforceability of these essential legal provisions or they accept some of the other reasons that have been described above as invalid. Both interpretations are disquieting and explain why the pact has been controversial ever since it was adopted.

3.2. Debates on the Stability Pact

There is by now a very substantial literature on the SGP, far too large to be reviewed here; Brunila *et al.* (2001) offers a collection of analyses and extensive references. This section focuses on a few key principles.

3.2.1. Theory and practice. Setting aside the reasons that have led to the pact, let us take for granted that fiscal discipline is a legitimate *collective* concern. The question, then, is how to ensure that each Euro area member country abides by fiscal policy discipline. Answering this question requires defining discipline and giving it an operational content.

Economic theory does not deal directly with discipline; instead it characterizes the budget constraint. As is well known, to meet its budget constraint, a government must ensure that the present value of its revenues be at least as large as its existing debt *plus* the present value of its expenditures. An equivalent definition is that the present value of the debt remains finite at all horizons. Most difficulties arise from the fact that this definition is not operational, for several reasons. It involves the whole stream of future revenues and expenditures, which are not controllable. In addition, the definition assumes that current official debts faithfully reflect all public commitments, that is, that all contingent liabilities are properly accounted for. Finally, since the definition involves present values, it requires the choice of a discount rate.

In response to these difficulties, a large literature has been devoted to the issue of debt sustainability.¹⁴ Two main routes are being followed. One approach is to try to come to terms with the fact that future spending and income are not controllable. The proposed solution is to set a limit on all present and future primary budget balances. The other approach is to target the debt level. The EDP mentions both routes. The initial version of the SGP has focused on the first route; the new version adopted in March 2005 moves towards the second one.

¹⁴ Two classic references are Buiter (1985) and Blanchard *et al.* (1990). The IMF has produced many papers that focus on the implementation aspects. Arrow *et al.* (2004) offer a general treatment of the concept of sustainability.

Both approaches face the serious difficulty of setting limits. There is no general theory of what are appropriate budget balances and public debt levels. The Stability Pact has taken over the 3% and 60% limits of the Maastricht convergence criteria, which are presumably compatible with each other. These criteria were arbitrary, and they remain so. They were controversial but, as a one-off guidepost towards Euro area membership, they were tolerable. In a permanent regime, they are clearly problematic, especially if they prevent the countercyclical use of fiscal policy, possibly imposing serious economic costs.

3.2.2. Rules versus discretions. Indeed, having given up the monetary policy instrument, Euro area members are left to rely on fiscal policy as their only macroeconomic management instrument. This point was recognized early on and triggered a wide, ongoing debate along the lines of rules versus discretion. A key question was and remains whether the SGP is too constraining to allow adequate policy flexibility, as argued by Buiter *et al.* (1993), Eichengreen and Wyplosz (1997) and Canzoneri and Diba (2001).

The official view was that it does not, that once all deficits are brought to ‘close to balance’, there will be enough room for the automatic stabilizers to fully operate. In addition, it was argued that discretionary policy was a thing of the past to be carefully eschewed: ‘Fiscal fine-tuning should be avoided and the reaction to shocks should generally be limited to the proper functioning of automatic stabilizers’ (Public Finances in EMU – 2001, *European Economy* 3, 2001, p. 62). A number of academic contributions backed this view. Beetsma (2001), Artis and Buti (2000) and others have produced estimates that claim to show that, starting from a position close to balance or in surplus, the automatic stabilizers are fully available and sufficient to deal with most plausible shocks.

3.2.3. Institutions versus quantitative constraints. One lesson from the rules versus discretion debate has been that, in some cases, the conflict can be avoided by adopting institutions that can combine both discipline and discretion. One approach, developed in von Hagen and Harden (1994) is to change the decision-making process within governments, essentially by giving more power to the Finance Minister. Another approach is to follow the lead from monetary policy, where the need for both discretion and discipline is similar. Over the last decades, monetary policy-making has moved from discretion to rules and then on to institutions. The last step involved granting independence to central banks and entrusting decision-making to committees of independent experts. This way to resolve the rules versus discretion debate has not been challenged ever since it has been put into practice. Could it be used for fiscal policy as well? Various applications of this idea have been mooted, from fully independent fiscal policy committees (Eichengreen *et al.*, 1999; Calmfors, 2003; Wyplosz, 2005a), to advisory expert councils (Sapir *et al.*, 2004) and to independent accounting and forecasting agencies (Jonung and Larch, 2004).

Replacing the SGP with institutions has been met with disbelief by both policy-makers and most academics. The arguments are that fiscal policy is different from monetary policy and that the idea is not politically viable. Since the acknowledged source of fiscal indiscipline is a political failure, it is indeed unlikely that politicians will find a constraining institution appealing. Declaring such ideas as not politically viable amounts to accepting that the political failure that underpins the deficit bias cannot be solved. It may be so, but then the conclusion also applies to the SGP. Either it is strict, and therefore politically not viable, or it is soft, and therefore ineffective.

3.3. Reality check

The attempted coup by the central bankers, who dominated the Delors Committee and sought to substitute monetary to fiscal dominance, is not yet fully cemented. Central bank independence, backed by the Maastricht Treaty provisions of no-bailout and no monetary financing of deficits, effectively shields the Eurosystem from government pressure. Fiscal dominance is *de jure* ruled out.¹⁵ On the other hand, the spectacular failure of the SGP in 2003 and the botched reform of 2005 leave the Euro area without clear monetary dominance. As a result, fiscal dominance remains *de facto* a threat.

The reasons should be clear. The arrangements concerning monetary policy are grounded in well-established politico-economic principles: policy independence, a well-designed institution, (implicit) inflation targeting and adequate choice of instruments. In contrast, the fiscal policy arrangements rely on the flawed SGP and on murky attribution of competences since fiscal policy remains in the national sovereignty domain, yet it is subject to centralized interference. There is no easy solution to this quagmire. Obviously the current arrangement does not work as intended.

One reassuring view is that, for all its failures, the SGP has influenced policy-makers, even if they did not fully play by the rules. The argument is that, absent the pact, fiscal policies would have been even less disciplined than they have been. The impossibility of running a counterfactual experiment prevents a firm evaluation of this view. Indirect evaluation is possible, however.

3.3.1. Has discipline improved? Is there any indication of heightened fiscal discipline? The main difficulty in dealing with this question is that of choosing a reference period. The pre-euro years were dominated by the Maastricht criteria during which all countries that wanted to join the Euro area dutifully responded to a very powerful incentive. The right-hand chart in Figure 4 warns us, however, that they did not do better than the other OECD countries. What happened afterwards, once the SGP

¹⁵ The ruling of the European Court of Justice on the events of November 2003 can be seen as an indication that the SGP never really succeeded in establishing *de jure* fiscal dominance. This point is taken up below.

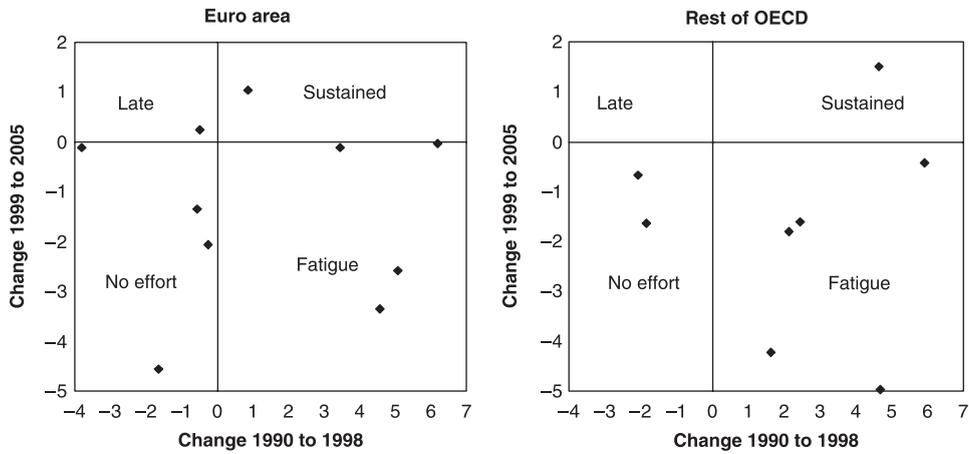


Figure 5. Budgetary stabilization efforts: before and after euro

Source: Economic Outlook, OECD.

took effect? Is there any evidence of ‘post-Maastricht fatigue’, a relaxation of the discipline efforts in the aftermath of euro adoption?

The left-hand side chart in Figure 5 relates changes in euro area countries’ budget balances (in percent of GDP) between 1990 and 1998, measured on the horizontal axis, to the changes between 1999 and 2005, measured on the vertical axis. The chart determines four zones. The South-East corner corresponds to the fatigue assumption whereby the budget balance improved during the Maastricht convergence years and worsened after the launch of the euro. The figure provides some support to the fatigue assumption. However, since growth has been poor over 2001–5, the worsening may simply reflect the working of the automatic stabilizers, as provided for by the SGP. One way to deal with this issue is to compare the Euro area to the other OECD countries (right-hand chart), assuming that the slowdown was a widespread phenomenon.¹⁶ Figure 5 shows that budgetary relaxation is not limited to the Euro area. If the Euro area did not do worse, it did not do better either, even though it is equipped with the SGP.

This visual impression merely confirms the formal exploration of the discipline fatigue hypothesis presented in Fatás and Mihov (2002). Looking at the first three years of monetary union, they find that fiscal policy has indeed been relaxed. If anything, the process has deepened over the following three years. The evidence, therefore, is that the SGP has failed to deliver. This is why it went into a crisis in 2003.

3.3.2. Has fiscal policy been forfeited? The next question is whether the SGP has seriously curtailed the counter-cyclical use of fiscal policy, even though it is the

¹⁶ Another approach is to look at cyclically adjusted primary balances. The message is the same.

remaining macroeconomic policy instrument. Examining the period that goes from the Maastricht Treaty to the second year of monetary union, Galí and Perotti (2003) find that fiscal policy has become more counter-cyclical. Fatás and Mihov (2002), however, find the opposite. Given that both rely on a very short horizon, these results are bound to be fragile and call for an updating.

Galí and Perotti (2003) estimate a fiscal policy reaction function, following the logic of Taylor rules applied to monetary policy. A typical reaction function assumes the following behaviour:

$$balance = a*gap + b*debt + c*balance\ lagged + constant + error\ term$$

where *balance* is a measure of the primary budget balance, *debt* is the gross public debt, and *gap* is the output gap, all measured as percentage of GDP. The budget is counter-cyclical when $a > 0$ and the debt constraint is active when $b > 0$, although this condition does not guarantee debt sustainability (sustainability conditions are derived in Wyplosz, 2005b). The last term allows for budget smoothing when $c > 0$.

Galí and Perotti (2003) suggest to use two different measures of the primary budget balance: the cyclically adjusted balance, which allows to examine whether discretionary fiscal policy is pro or counter-cyclical, and the cyclical component of the budget balance (the overall balance less the cyclically adjusted balance), which evaluates the automatic stabilizers. Estimates of the cyclically-adjusted balance are reported in columns (1) to (4) in Table 2, while columns (5) to (8) display estimates of the cyclical component of the budget balance.

The question at hand is whether the Maastricht convergence criteria first, and then the SGP, have affected the conduct of fiscal policies in Europe. If this is the case, the coefficients a , b and c , as well as the constant, will not be stable; a and b should rise following the adoption of discipline enhancing measures while c should decline if fiscal policy is made less rigid. To test whether the convergence criteria and the SGP delivered these effects, three dummy variables are used: $D80-91$ takes the value 1 for the period 1980–91, 0 afterwards; $D92-98$ is 1 during the Maastricht convergence years and $D99-05$ is 1 during the euro period. The estimated equation is therefore:

$$\begin{aligned} balance = & a_1*D80-91*gap + a_2*D92-98*gap + a_3*D92-05*gap \\ & + b_1*D80-91*debt + b_2*D92-98*debt + b_3*D92-05*debt \\ & + c_1*D80-91*balance\ lagged + c_2*D92-98*balance\ lagged \\ & + c_3*D92-05*balance\ lagged \\ & + d_1*D80-91 + d_2*D92-98 + d_3*D92-05 + error\ term \end{aligned}$$

The hypothesis that the convergence criteria and the SGP limited the discretionary use of fiscal policy implies that $a_1 > a_2$ and $a_1 > a_3$, respectively, in a regression where *balance* is the cyclically adjusted primary balance. If $b_1 < b_2$ and $b_1 < b_3$ we can conclude that discipline has been enhanced. When *balance* is the cyclical primary

Table 2. Tests of cyclicity of fiscal policy (1980–2005)

		Cyclically adjusted primary balance				Cyclical component of primary balance			
		EU 2SLS	Panel Euro area W2SLS	Panel Euro area 3SLS	Panel EU3 W2SLS	EU 2SLS	Panel Euro area W2SLS	Panel Euro area 3SLS	Panel EU3 W2SLS
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
a ₁	Output gap*D80-91	-0.42	-0.31	-0.30	0.22	0.47	0.54	0.56	0.67
		-4.56	-4.32	-4.98	1.65	7.16	28.50	48.78	30.07
a ₂	Output gap*D92-98	-0.02	-0.02	0.02	1.00	0.47	0.72	0.69	0.77
		-0.10	-0.30	0.36	3.67	7.31	32.96	59.44	23.04
a ₃	Output gap*D99-05	-0.13	-0.04	0.04	-0.02	0.86	0.45	0.49	0.80
		-0.21	-0.37	0.55	-0.03	10.95	13.17	19.30	9.66
b ₁	Debt(-1)*D80-91	0.10	0.02	0.02	0.06	0.00	0.00	0.00	0.01
		3.20	2.47	2.86	1.82	-0.22	0.37	1.37	2.12
b ₂	Debt(-1)*D92-98	0.18	0.10	0.09	0.14	0.00	0.00	0.01	0.00
		1.92	10.83	14.56	4.46	0.09	2.45	5.36	-0.45
b ₃	Debt(-1)*D99-05	0.10	0.09	0.08	0.18	-0.06	0.01	0.01	0.00
		0.41	7.94	14.33	3.11	-1.36	2.28	3.06	-0.07
c ₁	Budget(-1)*D80-91	0.07				-0.02			
		0.33				-0.16			
c ₂	Budget(-1)*D92-98	-0.34				-0.01			
		-0.59				-0.05			
c ₃	Budget(-1)*D99-05	0.72				-0.44			
		0.47				-3.61			

Table 2. *Continued*

	Cyclically adjusted primary balance				Cyclical component of primary balance			
	EU 2SLS	Panel Euro area W2SLS	Panel Euro area 3SLS	Panel EU3 W2SLS	EU 2SLS	Panel Euro area W2SLS	Panel Euro area 3SLS	Panel EU3 W2SLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Wald Tests (<i>p</i> values)								
$a_1 = a_2$	0.039	0.010	0.001	0.011	0.937	0.000	0.000	0.012
$a_1 = a_3$	0.638	0.023	0.001	0.765	0.003	0.022	0.007	0.108
$a_2 = a_3$	0.863	0.920	0.845	0.233	0.002	0.000	0.000	0.688
$a_1 = a_2 = a_3$	0.104	0.017	0.001	0.035	0.004	0.000	0.000	0.019
$b_1 = b_2$	0.508	0.000	0.000	0.039	0.830	0.007	0.000	0.078
$b_1 = b_3$	0.983	0.000	0.000	0.054	0.238	0.008	0.021	0.352
$b_2 = b_3$	0.760	0.404	0.310	0.588	0.201	0.542	0.148	0.864
$b_1 = b_2 = b_3$	0.795	0.000	0.000	0.056	0.418	0.005	0.000	0.204
$c_1 = c_2$	0.565				0.938			
$c_1 = c_3$	0.682				0.028			
$c_2 = c_3$	0.534				0.018			
$c_1 = c_2 = c_3$	0.761				0.039			

Note: Sample period: 1980–2005. Data for 2005 are forecasts. D80-91 = dummy variable for pre-Maastricht years; D92-98 = dummy variable for Maastricht convergence years; D99-05 = dummy variable for monetary union years. Countries included in the Euro area panel: all Euro area members except Greece and Luxembourg. EU includes all 15 pre-enlargement EU countries. Instruments: lagged output gap, current and lagged US output gap. EU3 includes the three non-Euro area members: Denmark, Sweden and the UK.

Source: *Economic Outlook*, OECD.

balance, $a_1 < a_2$ and $a_1 < a_3$ imply that the convergence process and the SGP, respectively, have enhanced the working of the automatic stabilizers.

Wyplosz (2002) and Galí and Perotti (2003) provide estimates for various countries and country groupings. Because of the limited number of available observations, country-level regressions are poorly estimated. Table 2 presents results for the EU as a whole in columns (1) and (5), and estimates for a panel of Euro area member countries in columns (2), (3), (6) and (7).¹⁷ The EU results rest on few observations, though, and are therefore fragile. Results for panels including the three non-Euro area members (EU3) are displayed in columns (4) and (8). Note that the lagged dependent variable is not used in panel estimation as it is a known source of inconsistency. The output gap is instrumented in all regressions to deal with the possibility of reverse causality from the budget to output; alternatively this allows interpreting the gap as its expected value based on information available during the previous year. The instruments are the current and lagged US output gap and the country's gap lagged.

Columns (1) to (3) confirm the results by Buti *et al.* (1997) that, in the Euro area countries, discretionary fiscal policy has been pro-cyclical during the pre-Maastricht years. It has become acyclical afterwards, with no significant difference between the Maastricht and the euro years. The budget has responded to debt in a stabilizing way, although not quite enough, as is readily confirmed by the debt build-up over this period. These results suggest that the convergence criteria and the SGP have improved the quality of discretionary fiscal policy in the Euro area in the sense of ending pro-cyclicality; as intended by its promoters, discretion has been abandoned.

Evidence on the automatic stabilizers, presented in Columns (5) to (7) is more surprising. It suggests that their responsiveness has increased during the Maastricht years, and declined afterwards, after the introduction of the euro. The stabilizers depend on structural factors, like the progressivity of taxes and the operations of the welfare system. It is difficult to understand what could explain these results, which must therefore be taken with a grain of salt.

Finally, it is worth asking whether the other EU countries that do not belong to the Euro area, and therefore did not have to meet the Maastricht convergence criteria and are weakly constrained by the SGP, followed the same pattern. Pre-Maastricht discretionary policies were counter-cyclical in the EU3 countries, they became more strongly so in the 1990s, while they seem to have become acyclical since 1999. There is no difference regarding the automatic stabilizers.

3.3.3. Caveat and assessment. The panel estimates presented in Table 2 assume that all Euro area member countries behave in the same manner. There is no reason for that to be the case and there is some evidence that it is not (see Wyplosz, 2002; and Galí and Perotti, 2003). This assumption, required given the short horizon and

¹⁷ Greece is excluded because it joined one year later. Luxembourg is also excluded because data are only available from 1990 onwards.

therefore the limited number of observations, implies that the results should be considered with caution.

Taking them at face value, a number of conclusions emerge. Following the adoption of the fiscal rule, discipline has improved but, on this dimension, the Euro area does not stand apart from the other OECD countries. Fiscal policy has improved in the sense that it is not procyclical any more. The finding that it is acyclical indicates that the 'last remaining tool' is not being used beyond letting the automatic stabilizers operate.

This assessment can be viewed as a success of the SGP, which wanted to restrict the use of fiscal policy to the stabilizers. The strategy assumes that the normal position of budgets would be 'close to balance or in surplus'. This was not the case when many countries faced prolonged slow growth after 2001. As a result, allowing the multipliers to operate, as has been the case against the Commission warnings, implied repeatedly violating the pact. The reforms, which are examined in the next section, can be seen as a direct response to this assessment.

3.4. Reform

When the pact was suspended in late 2003 – a move partly censured by the European Court of Justice – governments agreed that adjustments were needed but they decided to wait until 2005, for political convenience. This left ample time for proposals to flourish, and flourish they did. As usual, there was wide disagreement about the reasons for the pact's failure and about what changes were needed. And, as usual, the eventual changes were minimal.

At one end of the spectrum, there were those who lamented the casual treatment of the pact by the large countries. Some, for example Gros *et al.* (2004), argued that renegeing on a signed agreement was unacceptable, that it would seriously harm the whole monetary union's reputation and, eventually, its functioning. They called for a tightening of the pact, with the view of reducing discretion in implementation, possibly even making the pact stricter. This view was seriously undermined by the fact that, as Figure 1 shows, the financial markets did not react to the pact's demise.

In fact, the July 2004 ruling of the European Court of Justice revealed a little-noticed¹⁸ aspect of the pact. The Court faulted the Council for refusing to act on a Commission recommendation, not on the substance of its decision. In fact, the Court noted that the Council could, and should have instead failed – with a blocking minority, for instance – to adopt the Commission recommendation, which would have automatically put the SGP in abeyance. Thus, there is considerably more flexibility in the pact than opponents to the decision claim.

Even taking this flexibility into account, most economists have long recognized that the SGP was poorly designed. As they called for fixing it, they identified six main faults and recommended some solutions.

¹⁸ See Buti and Franco (2005) for a detailed analysis.

The first one concerns the use of the deficit as a measure of discipline. Since the budget balance is endogenously influenced by business cycles, it is beyond government control. In addition it tends to deteriorate precisely when worsening economic conditions call for an expansionary policy response. The obvious solution is to use instead the cyclically adjusted deficit (Buti *et al.*, 2003). The problem is that there are many ways of computing the cyclical adjustment, none of which has a claim on precision.

A second critique concerns the focus on annual budget measures, cyclically adjusted or not. Discipline is a long-run concept. Unless they make room for some short-run discretion, rules are too rigid to be viable. This feature of the SGP has long been widely recognized, including by the media who have come to call it the ‘rigidity pact’. The natural solution is to base the pact on a long-run target, and the only one that makes sense is the public debt (Wyplosz, 2002; Coeuré and Pisani-Ferry, 2003).

Third, the pact is suspended when a country faces exceptional circumstances, defined as recession in excess of 2% of GDP, with a possible suspension when the GDP falls by just 0.75%. On the basis of past experience, Eichengreen and Wyplosz (1997) have shown that this clause is truly extraordinary. In particular, a moderate but prolonged slowdown can drag the budget balance into a widening deficit, as indeed happened after 2001. Among the various proposed solutions, it has been suggested to allow a suspension of the pact in the event of a prolonged period of shallow growth.

The fourth line of thought notes that some public expenditures are good in the sense that they support growth. The implication is that productive public spending should be taken out of the budget balance. This idea has long been implemented in various circumstances. It is known in Germany as the golden rule. A sophisticated application to the SGP has been advanced by Blanchard and Giavazzi (2004). The problem, of course, is that it is impossible to tell good from bad public spending.

Fifth, it has been noted that the pact had a built-in asymmetry. In slow-growth years, when the 3% limit is binding, governments are committed to tighten an already worsening budget, while in better years, when the budget endogenously improves, they are under no commitment to improve the situation. Indeed, most of the countries that have been declared in excessive deficit during the post-2001 slowdown had failed to bring the budget to ‘close to balance or in surplus’ during the previous cyclical upswing. The result was not just failure to comply with the pact but, perhaps more troublesome, pro-cyclical fiscal policies: tight in downswings, expansionary in upswings. Many proposals were advanced to break this asymmetry, including giving a mandate to the Commission to recommend budget improvements in good years. An interesting alternative is to request that ‘rainy day funds’ be set up during cyclical upswings (Sapir *et al.*, 2004).

Finally, the rules versus discretion debate had highlighted the advantage of institutions over rules. This led to a number of proposals in favour of delegating fiscal discipline to independent committees, either at the EU level (Fatás *et al.*, 2003) or at the national level (Wyplosz, 2002).

A very different, but more fundamental, critique is of a politico-economic nature. It points out the conflict between the pact and national sovereignty in matters of fiscal policy. Put simply, how can a country be instructed to follow a policy recommended by 'Brussels' if its elected representatives (government and parliament) disagree? How can it be fined when its democratic institutions choose another course of action? The answer, of course, is that the country has signed an agreement and must abide by its international commitment. The truth, however, is that the full implications of the Maastricht Treaty EDP, and of the subsequent SGP, were not fully recognized when they were adopted, as noted by a key German negotiator: 'Evidently, the political authorities in many member states were unaware – or only vaguely aware – that the signing of the Maastricht Treaty with its requirement that excessive deficits be avoided has limited national sovereignty in the area of fiscal policy' (Stark, 2001, p. 104). Both logics are compelling but irremediably contradictory. One of them, therefore, has to go. Either sovereignty is eroded, or the pact has to be deeply amended. Renationalizing the SGP, within an agreed-upon framework, has been suggested by Wyplosz (2002, 2005).

In the end, following consultations with governments, the Commission produced in late 2004 a reform blueprint that aimed at smoothing the SGP's roughest edges without touching its essential components. In March 2005, the ECOFIN Council promptly accepted most of the Commission's recommendations. The 3% budget ceiling was retained as the centrepiece of the pact, but the decision to declare a country in excessive deficit can now rely on a wider set of parameters, including the behaviour of the cyclically adjusted budget, the level of the debt, the duration of a slow-growth period and the possibility that the deficit is associated to productivity-enhancing expenditures.

Thus critics have been listened to but none of their more profound proposals has been wholly adopted. The pact has been adapted to deal with the challenges of the early 2000s, but will it meet its next challenges? One view is that the pact has become adequately flexible while retaining its restraining influence. Another view is that, given the many informal clauses that have been introduced, it has ceased to exist for all practical purposes. Time will tell.

4. THE EUROSISTEM

To all those who worried that the European monetary union was an untested and innovative arrangement, the conduct of monetary policy undoubtedly constitutes the best surprise so far. Since this is the heart of the experiment, the Eurosystem's success cannot be over-rated. Of course criticism is not lacking, much of which is justified, but it concerns issues of clearly secondary importance. The main challenge, delivering a stable currency underpinned by perceived price stability, has been met.

This success should not be seen as a miracle, though. The technology of central banking has made significant progress over the last two decades, relying on both

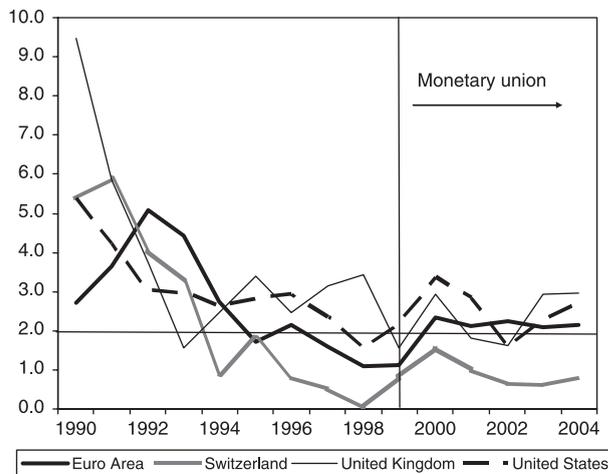


Figure 6. CPI inflation rates

Note: For 1990–5, the Euro area inflation rate is replaced by the German inflation rate.

Source: *International Financial Statistics*, IMF.

theoretical and practical advances – with practice usually leading theory. The Eurosystem has pragmatically absorbed these advances and, like all other well-run central banks, delivered on its first and foremost challenge, as Figure 6 readily confirms.

Much of the credit goes to the European Central Bank's (ECB's) predecessor, the European Monetary Institute (EMI) that had been given the task of preparing the conduct of monetary policy. The EMI was closed down in June 1998, immediately replaced by the ECB. The rest of this section, which focuses on the debates, should not give the impression of any failure. It deals with important, yet second order of importance controversies.

4.1. Monetary policy strategy

Given the prime objective of price stability assigned by the Maastricht Treaty, the EMI adopted the German two-pillar strategy. The Eurosystem would use open market operations to steer the overnight interest rate guided by two pillars. The first pillar, the monetary pillar, defined as 'a prominent role for money', was based on analysis of the evolution of monetary aggregates, chiefly M3. The second pillar would include all relevant indicators to deliver 'a broadly-based assessment' of other forces affecting inflation. This description of the monetary policy strategy became instantly highly controversial (Gerlach, 2004, provides a detailed analysis of the controversies; Begg *et al.* 1998 is an early critique). The controversy is well illustrated by the debate between Buiters (1999) and Issing (1999). Two main lines of criticism are noteworthy.

To start with, inflation targeting was becoming fashionable when the strategy was being mooted in the mid-1990s. Inflation targeting relies on just one pillar, the expected inflation rate. Beyond clarity, a key advantage of inflation targeting, it was felt, is transparency. As fears were ripe that the monetary union was a technocratic construct suffering from a democratic deficit, the choice of the reasonably vague two-pillar strategy made the new central bank look opaque.

Equally important was the fact that most central banks had jettisoned by then the use of monetary aggregates as a reliable guide. Money growth rules had played an important role during the disinflation period of the 1980s, but lower inflation and the impact of the IT revolution on banking technology combined to make all monetary aggregates unstable and poor predictors of subsequent inflation, a point clearly brought up by De Grauwe and Polan (2005). This made the new central bank look outdated even before it started its operations.

The Eurosystem's main defence of its strategy has been that a new, untested central bank lacks credibility. Credibility, in turn, is the most important asset of a central bank, as it allows its action to be effective. Technically, in an expectation-augmented Phillips curve, it is much more desirable to affect inflation through expectations rather than through output. How could the Eurosystem boost its credibility? The answer was to wear the mantle of the Bundesbank, one of the world's most credible central banks. Adopting the Bundesbank's money rule strategy was, so the argument goes, the obvious response to the need for early credibility.

The problem with this argument is that, already during the 1990s, the Bundesbank's own strategy had come under increasing criticism for sticking to its money rule. In fact, as described in Baltensperger (1999), the Bundesbank largely ignored its rule during the years preceding euro adoption. This fact meant that the two-pillar strategy of the Eurosystem was either unjustified or likely to be ignored in practice.

The Eurosystem has partly responded to heavy criticism from both the academic community and the financial markets. First, it yielded to critics, for example Svensson (2000), who complained that it should not hide its inflation forecasts. Since December 2000, the forecasts are now published twice a year in the *Monthly Bulletin*. Yet great care is taken to warn that these are staff's projections, not forecasts, and that they do not necessarily represent the view of the Governing Council.

Second, the ECB has conducted a policy strategy review in 2003. This review, which was entirely conducted internally, led the Eurosystem to announce that 'the Governing Council confirmed that its monetary policy decisions will continue to be based on a comprehensive analysis of the risks to price stability. Over time, analysis under both pillars of the monetary policy strategy has been deepened and extended. This practice will be continued. However, the Governing Council wishes to clarify communication on the cross-checking of information in coming to its unified overall judgement on the risks to price stability' (Press release, 8 May 2003).

The change involved renaming the two pillars and swapping their order. The new first pillar, dubbed economic analysis, aims at 'the short to medium term' and encompasses

everything else than monetary aggregates. The second pillar, called monetary analysis, aims at ‘the medium to longer term’ and relies on the usual money aggregates, in particular M3. However, ‘to underscore the longer-term nature of the reference value for monetary growth as a benchmark for the assessment of monetary developments, the Governing Council also decided to no longer conduct a review of the reference value on an annual basis’ (Press release, 8 May 2003). Thus monetary aggregates have been demoted from their initial ‘prominent role’ to that of ‘cross checking’ the conclusions of the economic analysis.

In contrast with its former chairman, the late Wim Duisenberg, who once famously observed that he hears but does not listen to criticism, the Eurosystem has responded to its critics. Only partly, however. In practice, it has joined the Federal Reserve as a closet inflation targeter: Like the Fed, it is staunchly refusing to be boxed into what it describes as a simplistic description of its actions.

4.2. Price stability and the inflation target

The Eurosystem claims that it does not have an inflation target; instead it has a mandate of price stability and a definition of price stability. The EMI defined price stability as ‘a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%’. By specifying only a ceiling and no floor, this definition raised some concern that deflation was not ruled out, a point that was quickly clarified.¹⁹ This clarification suggested an implicit target range of 0–2%, but are all rates within this range equally desirable? Some statements have indicated that 1.5% would be a desirable most-likely position, which then leads to the critique that the targeting is asymmetric (Svensson, 2000). Once again, lack of precision called for clarification that further muddled the situation.

Two related issues have remained controversial. Not having an inflation target, the Eurosystem feels that it does not have to specify an official inflation rate range that it is trying to achieve over a clearly stated horizon. From the start, this position has been seen as disingenuous (Favero *et al.*, 2000; Svensson, 2000) and an unwelcome source of opaqueness. Critics observed that the definition makes it impossible to conclude that the Eurosystem has not delivered, which significantly impairs accountability.

The other question is whether the chosen definition is appropriate. Some critics have argued that the implicit range of 0% to 2% makes it likely to enter into negative territory, raising the risk of deflation. Other critics have observed that very low rates of inflation may be inefficient. In response to various shocks, relative price and wage must adjust; when inflation is very low, this may require absolute declines in prices and wages. Holden (1994) has shown that nominal wage reductions are often legally ruled out. Akerlof *et al.* (1996), Dickens (2001) and Wyplosz (2001) have empirically

¹⁹ The use of the word ‘increase’ in the definition clearly signals that deflation, i.e. prolonged declines in the level of the HICP index, would not be deemed consistent with price stability.

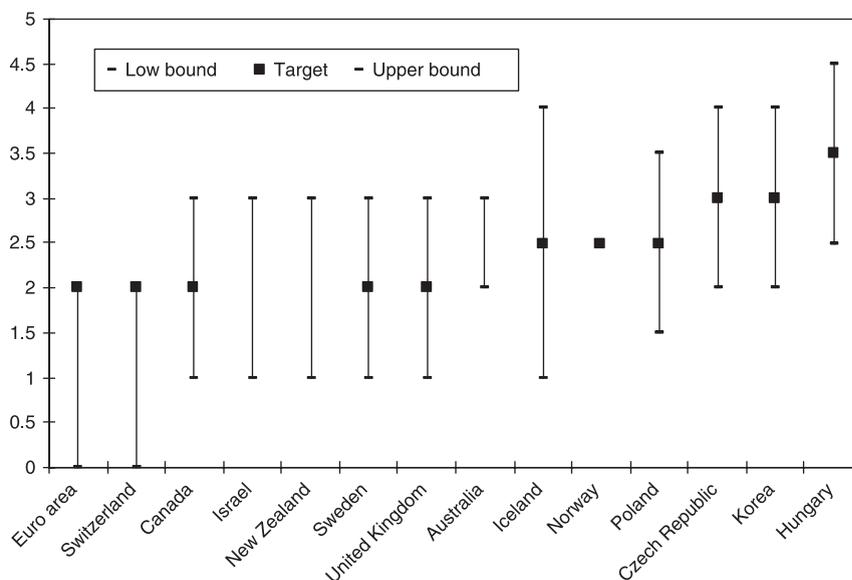


Figure 7. Inflation targets in OECD countries

Note: Not all central banks specify a midpoint.

Source: Websites of central banks.

examined the presence of ‘sand’ effects that hamper relative price and wage adjustments at low rates of inflation. In the Euro area, this issue is heightened by the fact that inflation rates unavoidably vary from one country to another; relative price and wage adjustments are all the more difficult in those countries where inflation is lower.

These are issues faced by any central bank. How do the others do it? Figure 7 shows the inflation targets of the OECD countries whose central banks, now all independent, have chosen to publish. Conspicuously absent are the US – the Federal Reserve resisted calls to adopt an inflation targeting strategy, not without internal debates – and the Bank of Japan, which has been fighting deflation for much of the last decade. The figure well illustrates the debates that have surrounded the Eurosystem. Its implicit target is asymmetric, a feature only shared by Switzerland, which has a long tradition of adopting the same practice as Germany. Its desired zone is the lowest among OECD countries. Its declared upper bound corresponds to the most commonly adopted range midpoint.

4.3. Transparency and accountability

These controversies may look arcane, and they are. Price indices are imperfect measures anyway (another area of controversy) so the small overshoot of the implicit target is economically insignificant. The average citizen is unaware of, and probably uninterested in these fine points. Financial markets do not seem to attach a great deal of

importance to these details either; they consider that the Eurosystem has established its credibility.

Why all the fuss, then? One reason is political and institutional. As an independent and powerful bureaucracy, the Eurosystem must be accountable. Formally, it reports to the European Parliament, but this is a weak form of accountability. The quarterly reporting sessions of the Chairman to the Parliament's Economic and Monetary Committee – in principle the Chairman is only bound to appear once a year – are accurately called 'Monetary Dialogue'. They certainly do not resemble the tough questioning of the Fed Chairman by the relevant committees of the US Congress.²⁰ In addition, in contrast with the Congress's ability to reduce the Fed's independence, the European Parliament has no direct power on the Eurosystem whose statutes are established by the Maastricht Treaty. The 'dialogue' falls well short of effective accountability.

These institutional limits could be of limited practical importance if the Eurosystem's performance could be evaluated by the Parliament or by the public at large. Given that the Maastricht Treaty vaguely defines its mandate as delivering price stability, the Eurosystem must be willing to submit itself to more precise criteria. Its refusal to adopt an inflation target range means that the Eurosystem has chosen not to be boxed into a situation where outsiders can unambiguously pass judgment on its actions.

There remains the question of whether the lack of accountability is associated with a lack of transparency and whether this matters for monetary policy. Blinder (1998) argues that monetary policy mostly operates through expectations. The implication is that central banking effectiveness crucially depends on the ability of outsiders to read and anticipate central bank actions. In that view, transparency is a condition for effectiveness, as illustrated by the statement of King (2000): 'transparency should lead to policy being predictable. Hence a successful central bank should be boring.'

This view is not universally held, though. Morris and Shin (2002) argue that too much transparency can hurt. As noted by Blinder *et al.* (2001) and Svensson (2004), their argument assumes that the central bank possesses inferior information. Empirical testing of the effects of central bank transparency is in its early stages. Early evidence (e.g. Geraats, 2002; Gerlach-Kristen, 2005) indicates that transparency raises effectiveness.

4.4. Reality check

4.4.1. Monetary policy strategy. According to its monetary pillar, the Eurosystem announces a target for M3 money growth. So far, this target has been set at 4.5% per annum. This choice has been justified by an application of the quantity theory to 'a trend potential growth in the range of 2–2½% per annum and a trend decline

²⁰ The Committee on Banking and Financial Services of the House of Representatives and the Committee on Banking, Housing, and Urban Affairs of the Senate.

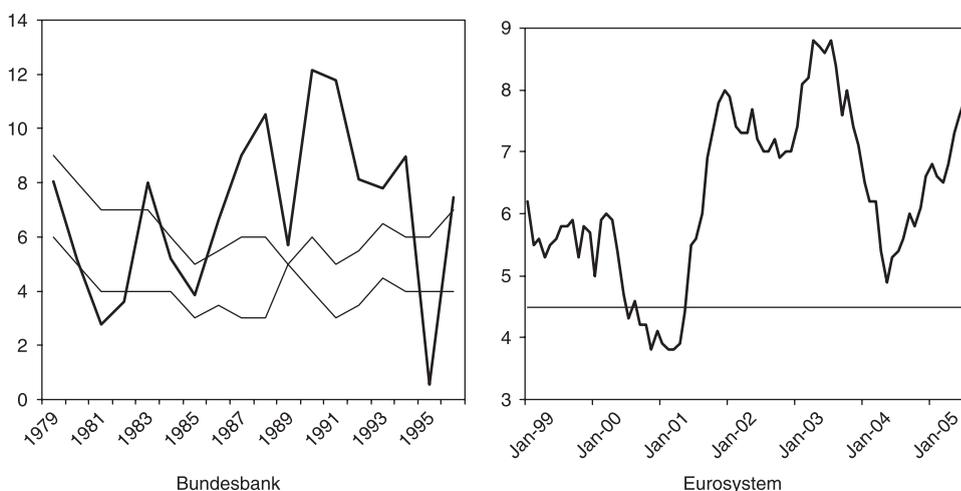


Figure 8. Money (M3) growth targets

Notes: The Bundesbank changed its target from central bank money to M3 in 1987. The money growth rates, taken from *International Financial Statistics*, may not match the Bundesbank's own definition. The Bundesbank's targeting period was from October to October. For October 1988 to October 1989, the target was 'around 5%'. The Eurosystem's chosen aggregate is M3.

Source: Bundesbank: *International Financial Statistics*, IMF, and Baltensperger (1999). Eurosystem: *Monthly Bulletin*, ECB.

in M3 income velocity of $1/2-1\%$ per annum in the euro area.²¹ It quickly transpired that the Eurosystem was only paying lip service to the monetary pillar; in fact, it has pursued instead a closet inflation targeting strategy (see Favero *et al.*, 2000 for an early appraisal).

As noted above, the monetary pillar has been justified as a continuation of the Bundesbank's strategy, meant to inherit the German central bank's reputation. The only difference is that the Bundesbank used to announce lower and upper money growth bounds, while the Eurosystem announces a 'reference value', not a target. Otherwise, the Eurosystem has indeed followed the Bundesbank, but in a surprising way. Like the Bundesbank, which has missed its target range every year after 1985, the Eurosystem has dutifully proceeded to allow its money target (M3) to systematically and almost continually exceed, by a large margin, the assigned 4.5% target, see Figure 8. In a way, the Eurosystem has heeded to its critics' advice by not taking seriously its announced strategy. This disconnect between words and deeds has led to the conclusion that the Eurosystem is intentionally opaque, reinforcing the widely perceived impression of a democratic deficit.

Another reason frequently advanced by the Eurosystem in defence of the monetary pillar is that the German public, already dismayed by the abandonment of its flagship currency, needs to be reassured that the euro will always be as good as the DM used

²¹ These assumptions imply, according to the quantity theory, an inflation rate between 1.5% and 2.5%, thus in excess of the stated objective of an inflation rate of less than 2%.

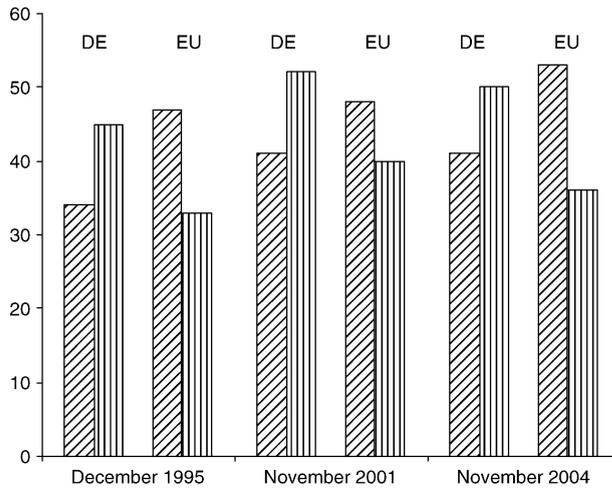


Figure 9. Public opinion: for and against the euro

Note: The first column corresponds to 'for' the second column to 'against'.

Source: Eurobarometer.

to be. Having been told for years that the key to the Buba's success was its money growth rule, the argument goes, German citizens insist that the rule figure prominently at the heart of the Eurosystem's strategy. Meeting this demand is presented as an implicit contract agreed upon when Germany reluctantly accepted to support the monetary union project. Figure 9 confirms that German public opinion has been and remains opposed to the euro, even though inflation has rarely been as low and stable in Germany as has been the case since the adoption of the euro (Figure 6). It may seem strange that the solution to euro-hostility is to pretend that the ECB is acting in the same way as the Buba was pretending to act while it transparently acted otherwise. Yet, most German monetary economists and economic commentators remain unswayed in their view that money growth rules should remain a prominent indicator. Carrying through with this fiction seems to be a way of avoiding even stronger opposition to the euro in the area's largest country.

4.4.2. Price stability and the inflation target. The Eurosystem has missed the 0–2% inflation range implied by its own definition. As Figure 6 shows, since the euro was launched, Euro area inflation has exceeded the declared ceiling for all but one year. Recognizing the problem, following the strategy review, it was announced that 'the Governing Council agreed that in the pursuit of price stability it will aim to maintain inflation rates close to 2% over the medium term' (Press release, 8 May 2003). The implication is that 2% is no longer a binding ceiling, even though the same statement reiterates the previous definition of price stability as inflation of less than 2%. What the Eurosystem meant to be a 'clarification' has deepened the mystery of what exactly the Eurosystem is trying to achieve.

Table 3. Alternative inflation target ranges

Dropping tails		2% wide	
Percent inside	Target range	Percent inside	Target range
95	0.9–2.7	100	0.8–3.1
90	1.1–2.5	96	1–3
75	1.5–2.4	94	0.5–2.5
50	1.9–2.2	43	0–2

Note: Percentage of monthly HCPI inflation rates within the assumed range over January 1999–November 2005.

Source: ECB and author's calculations.

What would be a more reasonable range, i.e. one that the Eurosystem is likely to achieve most of the time? Table 3 provides some clues based on the monthly inflation rates observed since the launch of the euro. It shows the proportion of observations that would have fallen inside various target ranges. Two approaches are used to select the ranges. The first one observes the distribution of monthly inflation rates and eliminates the tails – the most extreme observations on each side of the distribution – so as to achieve a given proportion. For instance, if the Eurosystem had chosen to define price stability as an inflation rate between 0.9% and 2.7%, it would have achieved its aim 95% of the time since 1999. As the range is made narrower by dropping more of the tails, the proportion of success drops; for instance, the Eurosystem would have hit the range only half of the time had it set the over-ambitiously narrow range 1.9–2.2%.

How well did the Eurosystem do, by the way? If one interprets its target range as 0% to 2% (or 0.5% to 2%, since it makes no difference), it has been successful a dreadful 43% of the time. Thus, the problem is not the width of the range – compare with 1.9–2.2% range – but its positioning. By shifting up the implicit 2%-wide range half a percentage point to 0.5–2.5%, the Eurosystem could boast an impressive 94% success rate.

5. CONCLUSIONS

A short summary is that policy-makers went on building the monetary union by paying limited attention to academic views, largely because academic research could not keep up with the speed at which decisions were made. Another reason was that the adoption of a common currency was, first and foremost, a political project with political imperatives. In particular, the whole project rested on Germany's willingness to give up its currency. Having accepted to share a currency with countries whose monetary record was far from stellar, Germany's request for formal and precise guarantees could not be turned down.

Focusing on three key aspects of the undertaking, this paper argues that the economic logic has not always been respected, that mistakes were made, sometimes in spite of early warnings. Many of these warnings have proved to be correct. For instance, the process of choosing the founding members of the Euro area was based

on views that ignored the OCA theory and that paid more attention to legal rules and conditions than to institution building. Yet OCA theory was not operational enough to serve as a guide for policy decisions, as the transatlantic debate between economists soon illustrated. In the end, the process was largely circumvented but without adverse consequences. Similarly, the SGP runs in the face of economic principles, not to mention national sovereignty. Its future is very much in doubt.

Over time, many criticisms have been taken on board. The revised SGP recognizes the need to allow for a wider range of contingencies, it has shifted the emphasis away from year-by-year budget deficits as cyclical adjustments and debt levels are now allowed to play a role, even though this role remains vague. The monetary strategy of the Eurosystem has also been adjusted. The monetary pillar remains but its use has obviously been limited. Willy nilly, the Eurosystem operates largely as an inflation targeter.

In the end, a striking characteristic of the whole undertaking is the gap between firm principles and pragmatic decisions. The paper has argued that many of these principles are either flawed or outdated. In that sense, the fact that they have not rigorously been applied is reassuring. On the other hand, the tension between principles and actions – dramatically illustrated by the suspension of the SGP – is unhealthy. It is always bad when policies depart from public commitments. This is especially so when democratic accountability is weak. It is encouraging, for example, that the Eurosystem has been wise in all its monetary policy decisions so far; yet, given its total independence, nothing could have been done had it decided to blindly follow its announced monetary policy strategy.

Maybe the concern about the disconnect between principles and actions, the gap between words and deeds, should not be overplayed. After all, policy-making is more art than science and some degree of on-the-spot inspiration can be desirable. Such a casual view is highly dangerous. Europe's economic performance, especially in the three largest Euro area countries, is highly disappointing. Two decades of slow growth and stubbornly high unemployment have generated massive frustrations. Economists are steeped in the fine distinction between monetary and structural matters. The public at large, most politicians and many policy-makers are not and, as the rejection of the draft constitution has shown, many are ready to blame Europe in general, and the monetary union in particular, for the hardship that they face. This is a very serious threat to European institutions. A transparent and accountable monetary union will not bring instant illumination, but it may help diffuse dangerous misunderstandings between citizens and Europe.

Discussion

Stephen Nickell

Bank of England Monetary Policy Committee

In his excellent paper, Charles Wyplosz (CW) covers a lot of ground on the broad issue of macroeconomic policy in the Eurozone since 1992. In particular he looks at

the Maastricht convergence criteria, the stability and growth pact and monetary policy strategy. Overall, he concludes that the Euro enterprise has been a major success but there have been lots of secondary problems. In this, I would agree.

In what follows, I first discuss the macroeconomic performance of the major countries of the Eurozone since 1992 relative to the UK and the US. Then, I look at some specific issues including fiscal policy rules, the inflation target and asymmetric shocks.

The macroeconomic performance of the Eurozone since 1992

In CW, there is a discussion of the performance of the Eurozone economies following the introduction of the Maastricht criteria in 1992. What we can see from Figure 10 is that relative to performance in the decade prior to 1992, the 'Big Four' Eurozone economies (France, Germany, Italy, Spain) have performed less well, on average,²² than either the UK or the US. The question is whether the underperformance of these economies has anything to do with the single currency.

The facts are plain. In the 1981–91 period, GDP growth was much the same in the 'Big Four', the UK and the US. Inflation was high across the board, as was unemployment. Then in the subsequent periods, inflation was cut significantly in all three but whereas GDP growth rose and unemployment fell in both the UK and the US, in the major Eurozone economies, GDP growth fell and unemployment remained very high. Why?

At first sight, the timing might suggest that the Euro is the problem. The Maastricht convergence rules followed by the single currency itself, with its one size fits all problems, might arguably have to take the blame. In my view, this is not correct. First, as we can see from Figure 11, neither Ireland nor the Netherlands seem to have suffered greatly from single currency blight. Second, the strong performance of both the US and the UK post-1992 followed from particular reasons which are unrelated to their location outside the Eurozone.

The US had a surge in labour productivity growth in the mid-1990s, raising trend productivity growth by close to one percentage point relative to the previous decade. This increase in productivity growth in the US, which did not occur in either the UK or the Big Four, was driven by ICT investment in the big service sectors of the economy (see Table 4) accompanied by the major organizational investments which are necessary in order to make best use of the new ICT capital. Since ICT investment in the UK was comparable to that in the US, one must conclude that UK management was not able to make such good use of ICT capital as US management. A good example is in the retail distribution sector where the increase in productivity since 1995 has been vastly greater in the US than in the UK or continental Europe (see Figure 12).

²² In fact Spain has probably performed better than the other three countries but, in 2004, it still had the highest unemployment rate in the OECD, with the exception of some transition economies.

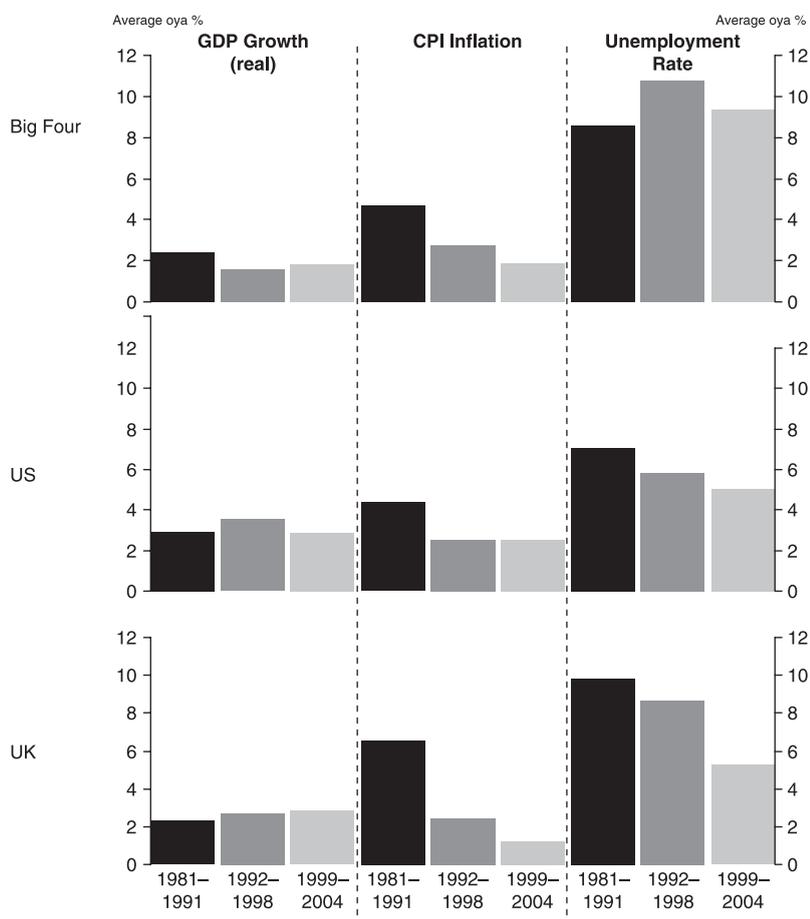


Figure 10. Performance in the US, UK and 'Big Four' Eurozone economies

Note: The 'Big Four' are France, Germany, Italy, Spain.

Table 4. Annual labour productivity growth (%) in the United States, 1987-99

Industries	1987-95	1995-9	% output share (1999)
IT-producing	8.24	11.90	5.3
IT-intensive	1.24	2.61	47.3
Other	0.98	1.11	47.4

Notes: The productivity numbers are employment weighted averages across industries. The IT-producing sectors are industrial machinery and equipment, and electronic and other electric equipment. The IT-intensive industries are those whose 1995 IT capital shares were above the 1995 median. The main sectors here are telecom, wholesale trade, retail trade, finance and insurance (not real estate), business services, and health services. These six sectors make up 77% of the total output of the IT-intensive industries.

Source: Stiroh (2001).

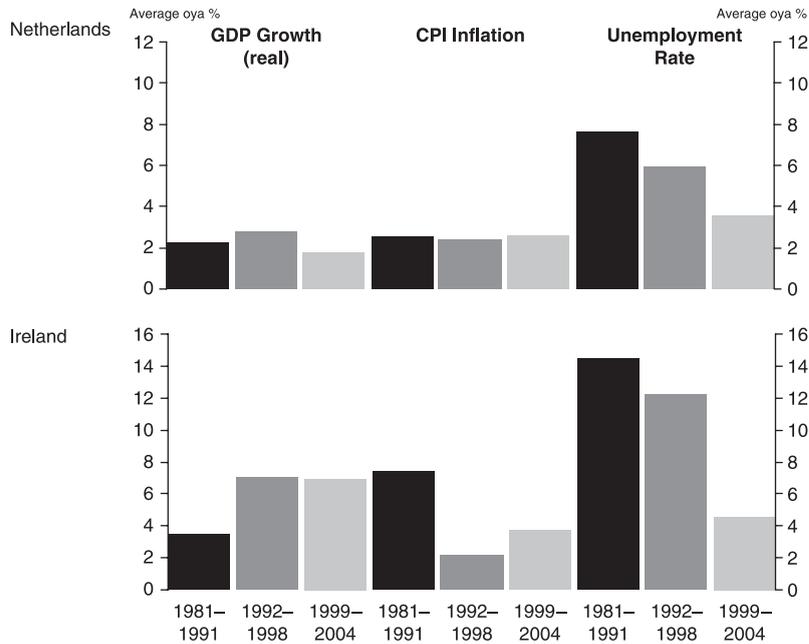


Figure 11. Performance in the Netherlands and Ireland

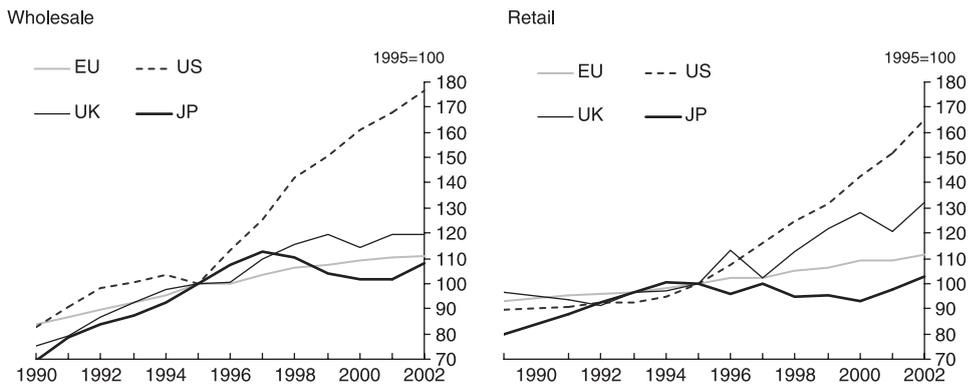


Figure 12. Productivity in the retail distribution sector

Source: Groningen Growth and Development Centre, 60-Industry Database, February 2005, <http://www.ggdc.net>

The factor underlying the superior performance of the UK economy relative to the Big Four, post 1992, was the rapid decline in equilibrium unemployment in the UK during the 1990s. Forces driving this shift include the significant decline in unionization in the private sector, the gradual increase in the focus of the social security system on moving the workless back into jobs and the deregulation of the service sector. The fact that the UK is outside the Eurozone has little to do with this

as the comparable reduction in equilibrium unemployment in the Netherlands indicates. (However, see the discussion in ‘Country specific issues’ below.)

So, to summarize, the weak macroeconomic performance of the major Eurozone countries since 1999 relative to the UK or the US has little to do with entry in the single currency. The US benefited from a surge in productivity growth and the UK from a significant fall in equilibrium unemployment. The fact that the Big Four had neither is not closely related to the introduction of the euro.

Some macroeconomic policy issues

Here I discuss some of the questions analysed in CW under the headings of fiscal policy, monetary policy and some country specific issues.

Fiscal policy. It is necessary for the effective operation of monetary policy to ensure that fiscal deficits are, and are expected to be, kept under control. The UK government has a ‘Code for Fiscal Stability’ and the Eurozone economies have the ‘Stability and Growth Pact’. Each of these has its own problems and CW discusses the latter in detail.

The basic difficulty is that, unlike monetary policy, fiscal policy is tightly bound up with the day-to-day conduct of politics and it appears to be difficult for governments to abide by rigid rules. Furthermore, rules where it is easy to detect disobedience, such as the 3% deficit rule, are generally thought to be unsatisfactory, whereas when using rules which are deemed by experts to be more satisfactory, it is typically hard to detect disobedience, at least in any timely fashion. Might some apolitical technocratic body play a role? For example, such a body might provide estimates of the time paths of future expected deficits, conditioned on tax rates and expenditure plans, given a variety of economic forecasts. The problem is that Finance Ministers will, typically, not tolerate situations where such technocratic bodies appear to be determining fiscal policy. So perhaps the best that can be done is first, to get agreement to a set of rules which will lead to government debt/output ratios being kept under control. Then to insist that the government publishes a set of forecasts of the overall fiscal position conditioned on tax rates and expenditure plans. These should include probabilistic ranges and be published at regular intervals, including an explanation of how the forecasts are consistent with the rules. This will allow others to produce alternative forecasts of the fiscal position based on the same conditioning tax and expenditure variables, generating a continuing public debate which will help to keep the government on some reasonable track.

Monetary policy. Eurozone monetary policy has succeeded in keeping inflation close to 2% and in keeping inflation expectations highly stable (see Figure 13). So I agree with CW that, broadly speaking, the ECB has been a success. However, I also agree with CW that the ECB suffers from not having a precise numerical inflation

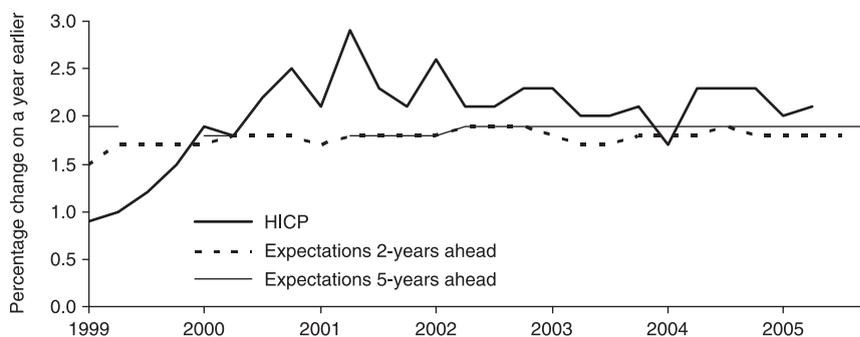


Figure 13. Eurozone inflation and inflation expectations

Note: HICP inflation and the inflation forecasts of professional forecasters (two years and five years ahead).

target. In my own experience, I find being provided with a precise numerical inflation target enormously helpful, since I can then explain my own policy decisions very simply in terms of avoiding an undershoot or overshoot of this target. Of course, given its multi-country environment, the ECB has a task of a higher order of difficulty than the MPC in the UK. But, under these circumstances, I would find having a precise numerical target even more helpful. Otherwise, I agree with CW that while it is possible to criticise the ECB on various secondary issues, overall it has been successful in achieving its prime objective of price stability.

Country specific issues. Here, I shall consider two issues, first asymmetric shocks and second, the incentives to institute labour and product market reforms. In my opinion and, perhaps contrary to the impression given by CW, asymmetric shocks are quite important. This opinion is based on the vague impression given by the recent history of Germany, Italy and Greece, along with the anxiety of commentators in the latter two countries, and one rather startling fact, namely that in 2005 Q1, unit labour costs in Germany had fallen by 3.7% over the previous year and unit labour costs in Italy had risen by 6.7% over the same period. It would surprise me if the economies of both Greece and Italy did not have some significant difficulties in the next few years because of asymmetric shocks. CW is rather less anxious about all this. He analyses asymmetric shocks, by looking at the performances of individual Euro area countries relative to various averages, before and after 1999. In my view, the post 1999 time periods are simply too short for him to argue that asymmetric shocks are not important. Given the existence of a production function, this is not an effective method of analysing asymmetric shocks which would typically impact on both output and employment alike. His conclusion that asymmetric shocks have not worsened the unemployment situation since the adoption of the euro is, therefore, not borne out by his evidence.

The other issue concerns the incentives to introduce structural reforms. I remarked above that the fall in equilibrium unemployment in the UK had nothing to do with

being outside the Eurozone. However, Duval and Elmeskov (2005) analyse the hypotheses that structural reforms are more likely to be introduced in small (more open) countries than in large countries and that in the latter, they are more likely to be introduced if the countries have independent monetary policies. This is because in small open economies or in large economies with independent monetary policies, reforms which raise potential output will tend to be closely followed by price or monetary policy shifts which raise actual output. So in these economies, there is a strong incentive for reform which is not present if the large economy is part of a monetary union. Duval and Elmeskov find evidence in favour of these hypotheses and therefore suggest that joining the Eurozone has reduced the rate of structural reforms in the large countries. However, it is worth noting that this effect is not large and is not, in my view, the main reason why the structural reform process is so sluggish in some of the large countries of the Eurozone.

Conclusions

Charles Wyplosz has produced a fascinating and helpful analysis of the introduction of the euro and I broadly agree with his conclusions. Here, I have looked at some of the issues and come to the following conclusions. First, while the 'Big Four' economies of the Eurozone (France, Germany, Italy, Spain) have performed less well, on average, than the UK or the US, post-1992, this is probably nothing to do with the euro. During this period, the US benefited from a surge in productivity growth and the UK from a fall in equilibrium unemployment. The fact that the Big Four benefited from neither was not the fault of the euro.

Second, it seems unlikely that a set of fiscal rules can be constructed that will be rigorously obeyed but governments may be prepared to agree to a set of broad guidelines on the path of debt levels, say, and to provide detailed forecasts of the fiscal position, given tax and expenditure plans. Continuous publication by other groups of equivalent forecasts and the ensuing public discussion may help to ensure that government debt/output ratios are kept under control.

Third, I argue in favour of a precise numerical inflation target and finally I think that asymmetric shocks cause a little more of a problem than CW does.

Martin Wolf

Financial Times

Charles Wyplosz has, as would be expected, written an interesting and highly professional paper. It deals with several well-known debates in an enlightening way. Nonetheless, I find it puzzling, far more for what it omits than for what it includes. So in these short comments I wish to focus on what Charles has omitted, with one important exception. In the process, I hope to persuade you that he has, to put it mildly, failed to convince me at least that this has been a 'major success', unless one

means by a success that it exists. But I, for one, never doubted that the union would exist, after the Maastricht Treaty was signed, though it was only in 1997 that I became convinced that Italy would join. My question was whether it was a good idea. Nothing in this paper convinces me that it is. So let me raise a series of specific issues, before coming to this fundamental question: is EMU a great success or a road to disaster?

Fiscal stability and the Stability Pact

The exception I have already mentioned is fiscal policy. Charles has no great difficulty in recognizing that the Stability and Growth Pact proved a predictable failure: predictable because in a clash between domestic politics and European constraints, the former would always win, at least in the big countries. When it was Germany, the founder of the pact, which fell into fiscal difficulties, it was predictably doomed. But the truth was that it was never plausible that fines would be imposed on a member state.

Yet the collapse of the pact leaves a big question: where is the discipline in the system? As Charles himself notes, in a (surprisingly) separate part of the paper, the interest rate spreads within the system are extremely small, despite the very large divergence in debt positions (20 basis points or so, for Italy vis-à-vis Ireland). Given this, it would make sense for any government with a reasonably high subjective discount rate (i.e. any government) to run up debts. What, after all, is the constraint? Thus, the big relaxation in fiscal policy that has occurred in Italy under Silvio Berlusconi is entirely understandable.

What is perhaps not so comprehensible is why fiscal policy has remained as disciplined as it has been. The IMF's latest *World Economic Outlook* shows, for example, essentially no structural loosening of the fiscal deficit in the Eurozone since 2000 (1.8 per cent of GDP, against the 2.3 per cent forecast for this year). This is a big contrast with US and UK. Maybe the pact had a bigger impact than many suppose. If so, what will be the effect of its reformulation? Will it continue to exercise the influence it had? Or will it diminish? Maybe even bad rules, inconsistently enforced were better than none.

Performance of the Eurozone economy

Now let me turn to the first and biggest of the omissions. It is no great secret that the performance of the Eurozone economy as a whole has been less than stellar, particularly since 2000 (an average growth of 1.3% between 2001 and 2005, inclusive, according to the IMF). I would have expected the paper to examine this record in some detail, since it hardly satisfies the statement that the currency union has been a great success. Nor is it possible simply to dismiss the link, since the union was sold on efficiency grounds. It was supposed to generate large efficiency gains, as the

capstone of the single market. In particular, the thesis was that the reduction in exchange rate uncertainty would stimulate investment. But that has hardly happened.

So an important question is why. There are a number of possible hypotheses: structural rigidities within economies is one; failings of the ECB are another; interaction between the structural rigidities and the ECB's policies are another; the impact of Germany's initial overvaluation is yet another. There are legitimate arguments, however, that the ECB's search for credibility – and its low inflation target – have made the problem far worse. An extra reason why this might be so is that, within the currency union, member states know that they will not be 'rewarded' by the ECB for reform in the way they might be by a national central bank. So there's a coordination problem.

In any case, here's the question: if EMU is so wonderful, why is the Eurozone so feeble? I would have liked an answer to that question.

One-size-fits-all and internal competitiveness

Now let's move to another question about the success of the Eurozone. What happens with significant cyclical divergence of the kind we have seen in recent years? The answer is simple: the macroeconomic tools work perversely. Real interest rates are negative where economies are overheating and positive where they are cooling.

Now the countries suffering from a long period of inadequate demand are discouraged from fiscal loosening (because their deficits are too big), while those enjoying a boost to demand are, in an environment of stable inflation, unwilling to tighten. That excess demand position in these countries then continues. The ECB has to keep tightening monetary policy, to contain inflation in the booming countries, while inflation falls only very slowly in the slow-growing ones, partly because it is low already and partly because of the usual rigidities. This asymmetry keeps overall inflation high and monetary policy quite tight.

Now consider what happens when the booming economies finally lose competitiveness. They will finally fall into a long period of slow growth during which unit cost inflation will have to be below that of the rest of the Eurozone. Under plausible assumptions, that means years of next to no growth in nominal wages and weak demand. That is a recipe for disaster.

The point here is that we have not even seen the beginning of how this system is going to work out in the long run. But the overwhelming chances are that there will be long periods in many countries similar to that in Germany in the last five years. Italy looks to be the next on the list. Spain may follow. It is simply unclear how the politics of these places will cope with a recession mandated by inadequate competitiveness and a central bank indifferent to the fate of individual member countries. Politics, after all, remain firmly natural. The ability of a bureaucratic European system to constrain it is, as the recent constitutional referenda have shown, very limited.

Global adjustment

The final question is the ability of the Eurozone – the world's second largest monetary area – to contribute to global balance of payments adjustment. It seems reasonably obvious that if the US is to reduce its deficit, other regions must reduce their surpluses or move into deficit. It would be helpful if a large solvent area, such as the Eurozone, could be one of the latter. At present, however, Germany runs a surplus of about \$120 billion, though the rest of the zone runs an aggregate deficit. But the only discussion now is how to get the Germans to cut their fiscal deficit. Is it really plausible that this will do anything but increase the German overall current account surplus further? Is this what we want to happen, in today's world? Could the Eurozone be made more responsive to outside pressures? Or must it remain so inward looking?

Conclusion

What am I saying here? It is quite simple: great monetary union, pity about the economy – that just doesn't make sense to me. I would have liked more discussion of the relationship between the currency union and the disappointing Eurozone economy.

Panel discussion

The Panel reacted vigorously and extensively to Charles Wyplosz's paper and presentation. A common concern was that when considering whether the EMU was a success or not, the answer depended upon the counter-factual. One Panellist asserted that the only unambiguous success of the EMU was the logistical aspects of introducing the euro coins and notes. Richard Portes picked up the point and commented that he considered the EMU to be a success in integrating monetary policy, creating financial stability (e.g. Greece's current efforts) and establishing credibility. The author agreed it may be too early to tell whether EMU had been a success or not; he insisted, however, that we could certainly conclude that the 'doomsday' predictions of some American economists had been disproved by the monetary union's performance to date. For example, there had been no marked divergence of performance and no extremely poor growth performance as some had predicted.

Another theme touched upon by a number of Panellist concerned the question of whether the Maastricht Convergence criteria and the SGP affected the conduct of fiscal policies in Europe. Harald Hau asked why there was such a problem with the removal of fiscal sovereignty as part of the SGP. On the normative side it can be a good thing and has happened throughout the development of democratic economic and legal institutions. The author replied saying that giving up the budget deficit may actually be feasible for politicians and redistribution would still be possible. Lans

Bovenburg felt that fears of lapsed fiscal discipline were strong before the pact and asked whether this was still a problem. In the Netherlands, he said that the SGP has made the Ministers of Finance stronger domestically. In other words, the very existence of the SGP shifted the array of political forces inside the Netherlands and in a way that favoured fiscal prudence. Georges de M enil remarked that the Eurozone nations have done as well as other OECD countries in terms of budgetary stabilisation; however they may have been the countries that most needed the discipline beforehand, so the equality of outcomes might actually indicated a large positive effect. Giancarlo Corsetti asked whether insufficient (too little, too late) stabilization was really the key issue and suggested newer optimal currency area models (those of Micheal Woodford and others) suggest too little stabilization will have a level effect in output and only a small welfare effect.

Ignacio Angeloni disagreed with the author's assertion that that inflation convergence would have happened without the euro and he cited the Italian experience where both monetary policy and fiscal policy were influenced by the convergence struggle in 1996–1998. The author replied by arguing that during the convergence period, all countries, including non-Eurozone countries, with budgetary and inflationary problems converged. EMU just provided a political reason to do this for some. Hans-Werner Sinn argued that interest rate differences are a problem particularly under a low inflation ceiling and that this had pushed some countries such as Germany into deflation and thus unemployment. The Balassa-Samuelson effect has apparently been forgotten in the formation of the ECB, it implies that price level convergence naturally is associated with inflation divergence. Sinn proposed that capital market integration which forces real price convergence would reinforce this effect. Richard Portes said that he believes the monetary policy had not been too restrictive; the ECB kept rates lower than the Bundesbank or Federal Reserve would have done and this has had a positive effect on long-term rate measures.

Lars Jonung felt that financial integration is missing from that paper, in particular, cross ownership of assets creates risk sharing and consumption smoothing. He asked whether the financial integration counterbalances the problem for countries such as Italy, Portugal and Greece where they have a boom-bust economy but the bust is still to come. He asked which crisis is better – a short term one solved by a devaluation or a prolonged one addressed by internal devaluation – reforms and moderation. Ignacio Angeloni felt that recent dynamics are more of a reflection of the different starting points than of any catching-up effect. He pointed out that this meant that the dynamics moving forward would be more of a concern than the dynamics observed up to now would suggest.

Elu Von Thadden argued that the paper does not deal sufficiently with the real economy – especially the capital markets. Many changes such as reference bonds and benchmarks, pressure on banks to reduce transactions have emerged since 1999 and he felt that these came from the EMU. Barry Eichengreen felt that the paper ascribed too much to monetary union and felt that the single currency has been successful in

its aim on addressing financial policy Carlo Favero suggested that mention of stock markets should also be made, they are behaving differently to GDPs.

REFERENCES

- Akerlof, G.A., W.T. Dickens and G.L. Perry (1996). 'The macroeconomics of low inflation', *Brookings Papers on Economic Activity*, 1, 1–59.
- Alesina, A. and R.J. Barro (2002). 'Currency unions', *Quarterly Journal of Economics*, 117, 409–36.
- Alesina, A. and G. Tabellini (1996). 'A positive theory of budget deficits and public debt', *Review of Economic Studies*, 57, 403–14.
- Arrow, K., P. Dasgupta, L. Goulder, G. Daily, P. Ehrlich, G. Heal, S. Lewis, K.-G. Mäller, S. Schneider, D. Starrett and B. Walker (2004). 'Are we consuming too much?', *Journal of Economic Perspectives*, 18(3), 147–72.
- Arrowsmith, J. (ed.) (1998). 'Thinking the unthinkable about EMU: Coping with turbulence between 1998 and 2002', NIESR Occasional Paper 51.
- Artis, M. and M. Buti (2000). 'Close to balance or in surplus: A policy maker's guide to the implementation of the Stability and Growth Pact', CEPR Discussion Paper No. 2515.
- Baldwin, R. (2001). 'On the microeconomics of the European Monetary Union', *European Economy*, Special Edition, 1, 19–35.
- (2005). 'The Euro's trade effects', <http://hei.unige.ch/%7Ebaldwin/RoseEffect/TradeEffectsEuroBaldwin.html>
- Baldwin, R. and C. Wyplosz (2003). *The Economics of European Integration*, McGraw-Hill.
- Baldwin, R., E. Berglöf, F. Giavazzi and M. Widgrén (2001). 'Nice try: Should the Treaty of Nice be ratified', *Monitoring European Integration*, 11, Centre for Economic Policy Research, London.
- Baltensperger, E. (1999). 'Monetary policy under conditions of increasing integration (1979–96)', in Deutsche Bundesbank (ed.), *Fifty Years of the Deutsche Mark*, Oxford University Press, Oxford.
- Bayoumi, T. (1994). 'A formal model of optimum currency areas', CEPR Discussion Paper No. 968.
- Bayoumi, T. and B. Eichengreen (1993). 'Shocking aspects of European monetary integration', in F. Torres and F. Giavazzi (eds.), *Adjustment and Growth in the European Monetary Union*, Cambridge University Press, Cambridge.
- (1997). 'Ever closer to heaven? An optimum-currency-area index for European Countries', *European Economic Review*, 41(3–5), 761–70.
- Bayoumi, T., M. Goldstein and G. Woglom (1995). 'Do credit markets discipline sovereign borrowers? Evidence from US States', *Journal of Money, Credit, and Banking*, 27, 1046–59.
- Beetsma, R. (2001). 'Does EMU need a stability pact?', in A. Brunila, M. Buti and D. Franco (eds.), *The Stability and Growth Pact*, Palgrave, London, 23–52.
- Beetsma, R., X. Debrun and F. Klaassen (2001). 'Is fiscal policy coordination in EMU desirable?' *Swedish Economic Policy Review*, 8(1), 57–98.
- Beetsma, R., M. Giuliodori and F. Klaassen (2005). 'Trade spillovers of fiscal policy in the European Union: A panel analysis', CEPR Discussion Paper No. 5222.
- Begg, D., P. de Grauwe, F. H. Uhlig and C. Wyplosz (1998). 'The ECB: Safe at any speed', *Monitoring the European Central Bank*, 1, Centre for Economic Policy Research, London.
- Begg, D., P.-A. Chiappori, F. Giavazzi, C. Mayer, D. Neven, L. Spaventa, X. Vives and C. Wyplosz (1991). 'The making of monetary union', *Monitoring European Integration*, Centre for Economic Policy Research, London.
- Begg, D., B. Eichengreen, L. Halpern, J. von Hagen and C. Wyplosz (2003). 'Sustainable regimes of capital movements in accession countries', *Policy Paper 10*, Centre for Economic Policy Research, London.
- Bini-Smaghi, L., T. Paddoa-Schioppa and F. Papadia (1993). 'The policy history of the Maas-tricht Treaty: The transition to the final stage of EMU', in CEPR, *The Monetary Future of Europe*, Centre for Economic Policy Research, London.
- Blanchard, O.J., J.-C. Chouraqui, R.P. Hagemann and N. Sartor (1990). 'The sustainability of fiscal policy: New answers to an old question', *OECD Economic Studies*, 15, 7–36.

- Blanchard, O.J. and L. Katz (1992). 'Regional evolutions', *Brookings Papers on Economic Activity*, 1, 1–75.
- Blanchard, O.J. and F. Giavazzi (2004). 'Improving the SGP through a proper accounting of public investment', CEPR Discussion Paper 4220.
- Blinder, A.S. (1998). *Central Banking in Theory and Monetary Policy Regimes*, MIT Press, Cambridge, MA.
- Blinder, A., C. Goodhart, P. Hildebrand, D. Lipton and C. Wyplosz (2001). 'How do central banks talk', *Geneva Reports on the World Economy* 3, Centre for Economic Policy Research, London.
- Brunila, A., M. Buti and D. Franco (2001). *The Stability and Growth Pact*, Palgrave, London.
- Buiter, W. (1985). 'A guide to public debts and deficits', *Economic Policy*, 1, 13–62.
- (1999). 'Alice in Wonderland', *CEPR Policy Paper* 1, Centre for Economic Policy Research, London.
- Buiter, W., G. Corsetti and N. Roubini (1993). 'Excessive deficits: Sense and nonsense in the Treaty of Maastricht', *Economic Policy*, 16, 57–100.
- Buti, M., D. Franco and H. Ongera (1997). 'Budgetary policies during recessions – retrospective application of the "Stability and Growth Pact" to the post-war period', *Economic Papers*, 121, European Commission.
- Buti, M., S. Eijffinger and D. Franco (2003). 'Revisiting the Stability and Growth Pact: Grand design or internal adjustment?', *Economic Papers*, 180.
- Buti, M. and D. Franco (2005). *Fiscal Policy in Economic and Monetary Union*, Edward Elgar, Cheltenham.
- Calmfors, L. (2003). 'Fiscal policy to stabilise the domestic economy in the EMU: What can we learn from monetary policy?', *CESejo Economic Studies*, 49(3), 319–53.
- Canzoneri, M. and B. Diba (2001). 'The SGP: Delicate balance or albatross?', in A. Brunila, M. Buti and D. Franco (eds.), *The Stability and Growth Pact*, Palgrave, London, 53–76.
- Canzoneri, M., R. Cumby and B. Diba (2001). 'Is the price level determined by the needs of fiscal solvency?', *American Economic Review*, 91(5), 1221–38.
- Codogno, L., C. Favero and A. Missale (2003). 'Yield spreads on EMU government bonds', *Economic Policy*, 27, 505–32.
- Cocuré, B. and J. Pisani-Ferry (2003). 'A sustainability pact for the Eurozone', in L. Tsoulakis (ed.), *Governance and Legitimacy in EMU*, European University Institute, Florence.
- Cohen, B.J. (2000). 'Beyond EMU: The problem of sustainability', in B. Eichengreen and J. Frieden (eds.), *Political Economy of European Monetary Integration*, Westview Press, Boulder, CO.
- Cohen, D. and C. Wyplosz (1989). 'The European Monetary Union: An agnostic evaluation', in R. Bryant, D. Currie, J. Frenkel, P. Masson and R. Portes (eds.), *Macroeconomic Policies in an Interdependent World*, IMF.
- Decressin, J. and A. Fatas (1995). 'Regional labour dynamics in Europe', *European Economic Review*, 39(9), 1627–55.
- De Grauwe, P. (1996). 'Monetary union and convergence economics', *European Economic Review*, 40(3–5), 1091–102.
- De Grauwe, P. and W. Vanhaverbeke (1993). 'Is Europe an optimum currency area? Evidence from regional data', in P. Masson and M. Taylor, *Policy Issues in the Operation of Currency Unions*, Cambridge University Press, Cambridge, 111–29.
- De Grauwe, P. and M. Polan (2005). 'Is inflation always and everywhere a monetary phenomenon?', *Scandinavian Journal of Economics*, 107(2), 239–59.
- Dickens, W.T. (2001). 'Comments', in A. Garcia Herrero, V. Gaspar, L. Hoodguin, J. Morgan and B. Winkler (eds.), *Why Price Stability?*, European Central Bank, Frankfurt.
- Duval, R. and Elmeskov, J. (2005). 'The effects of EMU on structural reforms in labour and product markets', ECB Conference on the Effects of EMU, Frankfurt, 16–17 June.
- ECB (2005). 'Monetary policy and inflation differentials in a heterogeneous currency area', *Monthly Bulletin*, 5, 61–77.
- Eichengreen, B. (1990). 'One money for Europe? Lessons from the US currency union', *Economic Policy*, 10, 117–88.
- Eichengreen, B. and C. Wyplosz (1997). 'The Stability Pact: Minor nuisance, major diversion?', *Economic Policy*, 26, 65–114.
- Eichengreen, B., R. Hausmann and J. von Hagen (1999). 'Reforming budgetary institutions in Latin America: The case for a national fiscal council', *Open Economies Review*, 10(4), 415–42.

- European Commission (1990). 'One money, one market', *European Economy*, 44.
- (1991). 'Annual economic report', *European Economy*, 46.
- (2004). 'Cyclical convergence in the Euro area: Recent developments and policy implications', *Quarterly Report on the Euro Area*, 3(2), 27–38.
- Fatás, A. and I. Mihov (2002). 'On constraining fiscal policy discretion in the EMU', *Oxford Review of Economic Policy*, 19.
- Fatás, A., J. von Hagen, A. Hughes Hallet, R.R. Strauch and A. Sibert (2003). 'Stability and growth in Europe: Towards a better pact', *Monitoring European Integration* 13, Centre for Economic Policy Research, London.
- Favero, C., X. Freixas, T. Persson and C. Wyplosz (2000). 'One money, many countries', *Monitoring the European Central Bank* 2, Centre for Economic Policy Research, London.
- Feldstein, M. (1997). 'The political economy of the European Economic and Monetary Union: Political sources of an economic liability', *Journal of Economic Perspectives*, 11(4), 23–42.
- (2000). 'The European Central Bank and the euro: The first year', NBER Working Paper 7517.
- Frankel, J. and A. Rose (1998). 'The endogeneity of the optimum currency area criteria', *Economic Journal*.
- Frieden, J. (1998). 'The euro: Who wins? Who loses?' *Foreign Policy*, 112, 24–40.
- Galí, J. and R. Perotti (2003). 'Fiscal policy and monetary integration in Europe', *Economic Policy*, 37, 533–72.
- Geraats, P. (2002). 'Central bank transparency', *Economic Journal*, 112(483), F532–65.
- Gerlach, S. (2004). 'The ECB's two pillars', *Economic Policy*, 19, 389–439.
- Gerlach-Kristen, P. (2005). 'The impact of the new Swiss Monetary Policy Framework on inflation expectations', unpublished, University of Basel.
- Giavazzi, F. and A. Giovannini (1989). *Limiting Exchange Rate Flexibility: The European Monetary System*, MIT Press, Cambridge, MA.
- Gros, D., T. Mayer and A. Ubide (2004). 'The dog that lost its bark: The Commission and the Stability Pact', *CEPS Policy Brief*, 18.
- Holden, S. (1994). 'Wage bargaining and nominal rigidities', *European Economic Review*, 38(5), 1021–39.
- Issing, O. (1999). 'Willem in Wonderland', *CEPR Policy Paper* 2, Centre for Economic Policy Research, London.
- Jonung, L. and M. Larch (2004). 'Improving fiscal policy in the EU: The case for independent forecasts', Economic Paper No. 210, European Commission.
- Kenen, P. (1995). *Economic and Monetary Union in Europe*, Cambridge University Press, Cambridge.
- King, M. (1998). 'The political economy of European Monetary Union', EIB Lecture Series, European University Institute.
- (2000). Address to the joint luncheon of the American Economic Association and the American Finance Association, Boston.
- Krugman, P. (1993). 'Lessons from Massachusetts for EMU', in F. Torres and F. Giavazzi (eds.), *Adjustment and Growth in the European Monetary Union*, Cambridge University Press, Cambridge.
- Méltitz, J. (2000). 'Some cross-country evidence about fiscal policy behaviour and consequences for EMU', *European Economy Reports and Studies*, 2, 3–21.
- Morris, S. and H. Shin (2002). 'Social value of public information', *American Economic Review*, 92 (December), 1521–34.
- Persson, T. (2001). 'Currency unions and trade: How large is the treatment effect?', *Economic Policy*, 33.
- Portes, R. and H. Rey (1997). 'The emergence of the euro as an international currency', *Economic Policy*, 26, 305–43.
- Ricci, L. (1997). 'A model of optimum currency area', IMF Working Paper 97/76.
- Rose, A.K. (2000). 'One money, one market: The effect of common currencies on trade', *Economic Policy*, 30.
- (2001). 'Currency unions and trade: The effect is large', *Economic Policy*, 33.
- Sapir, A., P. Aghion, G. Bertola, M. Hellwig, J. Pisani-Ferry, D. Rosati, J. Vinals and H. Wallace (2004). *An Agenda for a Growing Europe*, Oxford University Press, Oxford.

- Sargent, T. (1982). 'The ends of four big inflations', in R. Hall (ed.), *Inflation: Causes and Effects*, University of Chicago Press, Chicago, 41–97.
- Schulmann, H. (1993). 'Comments', in CEPR, *The Monetary Future of Europe*, Centre for Economic Policy Research, London.
- Svensson, L.E.O. (2000). 'What is wrong with the Eurosystem's money-growth indicator, and what should the Eurosystem do about it?', Report to the European Parliament.
- (2004). 'Morris and Shin (2002) is actually pro transparency, not con', unpublished.
- Stark, J. (2001). 'Genesis of a pact', in A. Brunila, M. Buti and D. Franco (eds.), *The Stability and Growth Pact*, Palgrave, London, 77–105.
- Stiroh, K.J. (2001). 'Information technology and the US productivity revival: What do the industry data say?', Federal Reserve Bank of New York Staff Reports No. 115, January.
- von Hagen, J. (1993). 'Currency union and fiscal union: A perspective from fiscal federalism', in P. Masson and M. Taylor (eds.), *Policy Issues in the Operation of Currency Unions*, Cambridge University Press, Cambridge.
- von Hagen, J. and I.J. Harden (1994). 'National budget processes and fiscal performance', *European Economy Reports and Studies*, 3, 311–408.
- Wyplosz, C. (1991). 'Monetary union and fiscal policy discipline', *European Economy*, Special Edition 1.
- (1997). 'EMU: Why and how it might happen', *Journal of Economic Perspectives*, 11(4), 3–22.
- (2001). 'Do we know how low should inflation be?', in A. Garcia Herrero, V. Gaspar, L. Hoodguin, J. Morgan and B. Winkler (eds.), *Why Price Stability?*, European Central Bank, Frankfurt.
- (2002). 'Fiscal policy: Rules or institutions?', paper prepared for the Group of Economic Analysis of the European Commission.
- (2005a). 'Fiscal policy: Institutions versus rules', *National Institute Economic Review*, 91, 70–84.
- (2005b). 'Institutions for Debt Sustainability in Brazil', in F. Giavazzi, I. Goldfajn and S. Herrera (eds.), *Inflation Targeting, Debt, and the Brazilian Experience, 1999 to 2003*, MIT Press, Cambridge, MA.