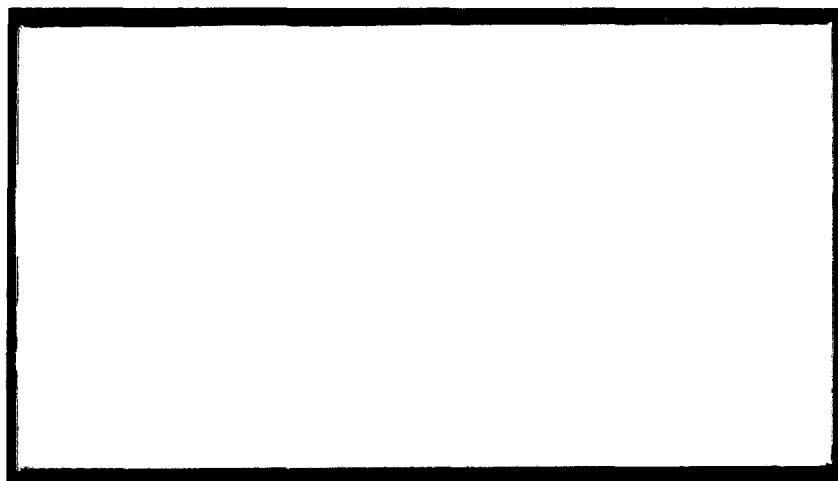


# ECONOMIC PAPERS

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# **ECONOMIC PAPERS**

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## **Economic Policy in EMU**

### **Part A**

### **Rules and Adjustment**

by

Directorate General II  
Economic and Financial Affairs

## FOREWORD

Economic and Monetary Union (EMU) will soon be a reality. The Amsterdam Summit has definitely adopted the institutional framework for the introduction of the euro on January 1, 1999. The time has come, therefore, to shift our attention from the legal and technical issues of the transition to the more economic topic of the actual functioning of monetary union.

Since the publication of *One Market, One Money* in 1990, there has been intense academic debate on EMU. This debate has been extremely valuable, shedding light on key policy matters. Over the years, the Directorate-General for Economic and Financial Affairs has both contributed to and benefited from the academic discussion. As the date for the introduction of the euro approaches, we felt the need to reflect on this discussion so as to further our economic understanding of the opportunities and challenges offered by EMU.

We proceeded in two directions. A number of seminars were organised, at which some fourteen distinguished academic economists participated. Simultaneously, a group of about twenty DG II economists were asked to elaborate papers on a number of relevant policy issues. These papers are published as two separate *Economic Papers*. The first Paper (Part A) presents a broad assessment of the economic debate on the functioning of EMU. The second Paper (Part B) explores a number of policy issues in greater detail.

I hope that these two *Economic Papers*, which pave the way to further analytical work by DG II, will bring valuable insights, and thereby contribute to the elaboration of appropriate policies for the successful functioning of EMU.

Giovanni RAVASIO

The present study, by the Directorate-General for Economic and Financial Affairs, was directed by Giovanni Ravasio, Director-General, and coordinated by Hervé Carré and Jan Host Schmidt, respectively Director for Monetary Affairs and Director of the Economic Service.

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# **PART A**

## **RULES AND ADJUSTMENT**

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## **EXECUTIVE SUMMARY**

On January 1st 1999, Economic and Monetary Union (EMU) will move to its third and final stage. The Euro will become the single currency while national currencies will continue to exist for a transient period as subunits of the Euro. The responsibility for monetary policy in the participating countries will be entrusted to the newly-created European Central Bank.

European monetary union must be understood as comprising two separate, but complementary facets: a single currency, and a stable currency. These two facets correspond to the two interrelated objectives of EMU: efficiency and stability.

The commitment by national public authorities to meet the terms of the Treaty on European Union for creating EMU is already bearing important fruit in terms of stability: in the past several years, the convergence towards low inflation has been impressive and, although more efforts are in order, budget deficits have been substantially reduced. This has resulted in more stable nominal exchange rates and lower long term interest rates, thus paving the way to the current economic recovery.

Although EMU represents first and foremost a monetary policy regime change, its implications are much wider. The construction of EMU is geared towards the stability of the new currency, and sound public finances. Together with a well-functioning Single Market, this new policy regime is bound to bring about a new economic environment with fundamental consequences for the behaviour of public and private agents.

The gradual elimination of budget deficits, as provided for by the Stability and Growth Pact, implies that government debt, currently still at too high levels, will be set on a consistently downward path. This will have beneficial consequences for interest rates and private investment, help restructuring public expenditure by giving more weight to growth-enhancing factors (such as investment in education and infrastructure), and raise the room for manoeuvre of national budgetary policies in stabilising the cycle. Budgetary discipline will also imply a new, fairer contract between the current and the next generation which will not have to shoulder the burden of today's spending choices. In total, with the change brought about by the EMU regime, the risk of a new stability conflict between the monetary and budgetary policies, which in the past repeatedly contributed to the unsatisfactory growth and employment performance of the Community, could be avoided in the coming years.

Private agents, as consumers and producers, will not only benefit from lower transaction costs and simplification entailed by the replacement of multiple national currencies by the euro, but will also see their spectrum of choice broadened. The euro will strengthen the effects of the Single Market due to higher price transparency and greater competition. The relationship between factors of production will also undergo important changes. It will become apparent that if prices and wages are inconsistent with macroeconomic stability and with the Single Market rules, there will not be a "bail out"

by public authorities - be it in the form of budgetary handout, looser monetary policy or “defensive” industrial policies. To the extent that wage and price behaviour anticipate this constraint, EMU will lead to a greater efficiency and higher employment.

The changes in behaviour on the part of public authorities and private agents in the new EMU regime are desirable *per se*, as a means of tackling the structural problems faced by Europe, namely the high and structural unemployment and the budgetary consequences of ageing. Hence EMU acts as a catalyst of changes which would have to take place anyhow to shift the European economies on a path of sustainable growth and high employment.

By definition, EMU implies the loss of national monetary autonomy. One of the criticisms often levied against the EMU project is that member countries will not be able to respond to economic disturbances *via* changes in national monetary policy or in their nominal exchange rate. It is then alleged that negative shocks will result in a surge of unemployment.

In reality, the exchange rate, being a “national” instrument - in that it changes the whole set of domestic prices vis-à-vis partner countries - is potentially appropriate only in a narrow set of circumstances, namely in the event of shocks affecting the entire national economy and only that economy. If the shock only effects a particular region or sector, a devaluation would lead to over-heating in other parts of the economy. *Mutatis mutandis*, the same can be said of monetary policy. Shocks that are truly national are already relatively infrequent. And they will become even more so once EMU is in place: The stability-oriented macroeconomic framework will reduce the likelihood of policy-induced shocks (such as disturbances originating in reckless fiscal behaviour), which in the past have been an important source of country-specific shocks. Moreover, the increasing trade interdependence among EMU members will further blur the economic importance of national boundaries, thereby reducing national specificity of economic developments.

Admittedly, in those circumstances in which a change in the exchange rate or national monetary policy would have been useful, alternative adjustment channels will have to be provided for in EMU.

At the macroeconomic level, a rapid reduction of deficits below the 3% threshold will create sufficient room for automatic fiscal stabilisers to offset cyclical downturns. Where structural adjustment, rather than mere macro-economic stabilisation is called for, changes in prices and wages will be needed. This requires that product and labour markets operate with greater flexibility.

In conclusion, EMU offers important opportunities for better allocation of resources, higher growth and higher employment, but also challenges of completing the necessary budgetary consolidation and stepping up the reforms in product and labour markets. Meeting these challenges will ensure not only the full success of EMU, but will also help in solving Europe’s structural problems.

## **ECONOMIC POLICY IN EMU**

### **RULES AND ADJUSTMENT**

#### **INTRODUCTION AND MAIN CONCLUSIONS**

In a little over one year, Economic and Monetary Union (EMU) will enter its third and final phase. As the date of 1st January 1999 approaches, the debate over European monetary unification is accelerating. The purpose of the present paper is to review and assess the recent debate. This review is deliberately selective. It focuses entirely on the functioning of the monetary union, leaving aside the issues of transition toward the third stage of EMU, but includes some of the questions associated with its early years.

The point of departure is that European monetary union must be understood as comprising two separate, but complementary facets: a single currency, and a stable currency. These two facets correspond to the two interrelated objectives of EMU: efficiency and stability.

Most of the economic literature on European monetary unification centres on the issue of efficiency, building on the theoretical concept of optimal currency areas (OCAs). In this context, economists have attempted to assess the gains and losses associated with the elimination of separate national currencies in favour of a single European currency.

On the benefit side, a single currency is generally viewed as a necessary complement to an efficient single European market, based on three arguments:

First, EU members cannot obtain the full gains from the single market unless they completely eliminate the exchange rate risks and conversion costs arising from the use of separate national currencies. This view was most forcefully presented by the European Commission (1990) in *One Market, One Money*, which estimated that the transaction costs due to multiple currencies in the EU amounted to nearly 0.5% of EU GDP in the mid-1980s. A more recent study by the German IFO institute puts this figure at 1% for the mid-1990s (see European Commission, 1996, p. 85). While difficult to quantify, the efficiency costs of resource misallocation due to exchange rate risk may be considerably larger.

Second, due to the abolition of capital controls in the EU (a consequence of the single market project), these gains cannot be obtained simply by fixing bilateral exchange rates between national currencies. This opinion was already expressed a decade ago by Tommaso Padoa-Schioppa, when he warned against trying to pursue an “inconsistent quartet” of policy objectives in Europe: free trade, full capital mobility, fixed exchange rates, and independent national monetary policies. He argued that “the only solution to the inconsistency is to complement the internal market with a monetary union” (Padoa-Schioppa, 1988, p. 376).

Finally, the complementarity between monetary union and trade integration is based not only on efficiency considerations, but also on “political economy” arguments. The argument is that, given the extent of competition in the EU, currency fluctuations strongly affect competitive positions, giving rise to political charges of competitive depreciation and exchange dumping which could trigger protectionist responses. Therefore, currency fluctuations, if allowed to persist, could severely endanger the Single Market.

On the cost side, the OCA literature points to the problems that may be encountered by members of the European Monetary Union in the absence of the exchange rate instrument if they suffer country-specific macro-economic disturbances. Two principal issues are raised:

First, research has attempted to examine the potential implications of EMU for the occurrence of country-specific shocks. There are clear indications that the likelihood of truly national shocks will be lessened by EMU. In addition, diverging macro-economic behaviours have often been the result of uncoordinated policy responses to common shocks, which will partly disappear with EMU. Therefore, instances in which the exchange rate instrument is the appropriate tool for responding to macro-economic disturbances are limited in the case of EU Member States.

A second issue relates to the existence of alternative mechanisms for absorbing the remaining country-specific shocks once national authorities have lost monetary independence. The problem is viewed as especially acute given that, contrary to the United States or other federated entities, the EU budget will not be able to help cushion shocks incurred by individual Member States. There are two such potential mechanisms:

- The first is the functioning of product and labour markets. There is broad agreement in the economic literature that many aspects of product and labour markets in EU Member States are currently insufficiently flexible. However, additional adjustment in market structure and response is likely to emerge as an endogenous consequence of the Single Market and the new monetary regime. But these changes will emerge only gradually in the new regime. This is acknowledged in the Commission’s *Action Plan for the Single Market*,

which seeks to improve the performance of product markets in the years ahead as “the third stage of EMU represents a critical juncture, at which the Single Market will provide underlying support for Monetary Union” (European Commission, 1997a).

- The second mechanism involves tax-smoothing and automatic-stabilisation provided by national budgets. In this context, much has been written about the Excessive Deficit Procedure and the Stability and Growth Pact. It has been argued that these budgetary discipline procedures may severely limit the functioning of national automatic stabilisers, thereby entailing significant costs for EMU members in the event of country-specific disturbances. In fact, the opposite holds. The sharp increases in budget deficits and government debt over the 1980s and 1990s in many EU countries have created structural imbalances which prevent the actual operation of automatic stabilisers. In these circumstances, the Stability and Growth Pact will help to restore the room for manoeuvre needed by national governments to engage in tax-smoothing activities. The fiscal consolidation required to regain such room for manoeuvre need not be recessionary. Positive expectational effects might reduce the standard negative Keynesian effect. Accordingly, episodes of fiscal retrenchment need not trigger an economic slowdown, especially if they occur around spending cuts, rather than tax increases. Furthermore, in a situation where price stability has been broadly achieved, it is possible for the direct restraining effects of budgetary consolidation to be broadly offset by easier monetary policies and better financial conditions.

As already alluded to, the OCA literature does not deal with the second facet of European monetary union, namely stability of the common currency, the euro. There is broad agreement in the economics literature in favour of price stability, the primary objective assigned by the Treaty on European Union (TEU) to the European Central Bank (ECB). However, there is some debate on the mechanisms designed by the TEU in order to achieve the objective of price stability. These mechanisms concern both the monetary policy of the Union and the fiscal policy of the Member States.

The Treaty offers strong guarantees for stability-oriented monetary policy. Several of its provisions ensure the independence of the ECB, a feature commonly viewed as necessary for credibility, which is in turn required for price stability. These provisions concern the status of the Bank’s board members as well as the prohibition on the ESCB from engaging in “monetary financing” of official entities.

The Treaty also contains fiscal provisions, in particular the Excessive Deficit Procedure, which are meant in large measure to reinforce the credibility of the ECB in pursuing its primary objective of price stability. The logic of the Treaty’s budgetary rules is that high debts and deficits threaten the stability of the euro because they may lead to debt runs, thereby putting pressure on the ECB to bail out countries in financial distress. The Excessive Deficit Procedure (together with the attendant Stability and Growth Pact) offers the distinct advantage of a mechanism designed to prevent, rather

than cure, financial crises. As such, it forms an important part of the apparatus aimed at ensuring price stability inside the euro area.

The monetary and fiscal rules in EMU are likely to have a favourable effect on growth and employment, essentially via two mechanisms: a stable macro-economic framework should result in lower and less variable interest rates, with positive effects on investment and consumption; a credible environment of price stability should also affect the behaviour of social partners, giving rise to employment-compatible wage behaviour.

The remarkable nominal convergence achieved by EU Member States indicates that the stability objective of EMU is becoming a reality. On average for the period September '96 - August '97, the inflation rate in the 15 countries of the EU was 1.9 %, lower than at any point in the past 35 years. Except for Greece, all Member States had inflation rates below 3%. By contrast, as recently as 1991, average inflation in the EU stood at 5 %, with five Member States above 6%. Over the twelve months to August '97, the average long-term interest rate was 6.5 %, with rates at no more than 7.5 % in all countries except Greece. By comparison, in 1991, the average rate was around 10%, with five countries above 11%. Great progress has also been achieved regarding general government budgetary positions. In 1996, the average deficit was 4.3% of GDP, as compared with 6.5% in 1993, with the majority of Member States above the 3% mark.

In conclusion, European monetary union offers opportunities, but also challenges. The opportunities are twofold. First, the single currency will increase the efficiency of the Single Market. Second, EMU will amount to a new economic regime characterised by price stability and sound public finances. This new macro-economic framework is already largely in place, and should yield positive returns in terms of growth and employment. The challenges are also twofold. On one hand, the smooth functioning of the macro-economic framework will require the correct mix between monetary and fiscal policies, especially during the early years of EMU. On the other, the opportunities offered by EMU will only be fully reaped if product and labour markets are made to operate more efficiently. In reality, the challenges are largely independent of EMU as they stem from the basic objectives of competitiveness and employment creation faced by EU Member States. Monetary union merely acts as a "facilitating device" for tackling these inevitable challenges.

In its steady state, EMU is likely to be characterised by price stability, sound public finances, and well-functioning product and labour markets. What will be the situation at the beginning of stage three? The provisions of the Treaty and the noted nominal convergence ensure that monetary policy will deliver price stability right from the start. The goal of sound public finances will have been reached by all participants in monetary union, but the degree of fulfilment is likely to vary across members. In particular, many of the participants are likely to need to make more progress in order to reach a budget close to balance or in surplus. Finally, not all markets will operate

efficiently at the outset. Many goods markets already operate fairly efficiently. By contrast, service and labour markets are still generally hampered by numerous barriers.

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This paper reviews the economic debate surrounding both the opportunities and the challenges arising from European monetary union. It is organised in two parts. Part I examines the economic environment in EMU, analysing the role of markets and the macro-economic framework. It finds that the prospect of EMU has already succeeded in creating a stable macro-economic environment, but that structural reforms aimed at better functioning markets take more time to be implemented and to produce results. Part II investigates the issue of adjustment in EMU in response to macro-economic disturbances, exploring the potential contribution of market mechanisms and macro-economic policies for coping with country-specific shocks. It finds that the new macro-economic framework will soon enable automatic stabilisers to operate better than in the recent past, but that it may take longer for market mechanisms to play their full part.

## I. THE ECONOMIC POLICY FRAMEWORK OF EMU

The impact of EMU will go far beyond the change of monetary regime. It will profoundly affect the behaviour of economic agents, public as well as private. By all accounts, European monetary union will amount to a structural break, altering market structures and policy processes. Price stability and sound public finances are both criteria for joining and permanent features of EMU. The EMU environment will also require better functioning markets. EMU will have important external implications.

### A. PRICE STABILITY

#### **The benefits of price stability**

It is widely recognised that inflation imposes a cost on society. In assessing the benefits of price stability, a classic distinction is drawn between anticipated and unanticipated inflation.

In the case of perfectly anticipated inflation, the latter represents a tax on holding money and forces agents to increase the frequency of cash withdrawal from the bank ('shoe leather' costs) and imposes costs of changing price listings ('menu' costs) on enterprises.

The effects of 'surprise' inflation are much more serious<sup>1</sup>. These can be summarised as follows<sup>2</sup>:

- a) inflation leads to arbitrary redistribution of income and wealth, in particular, from creditors to debtors, from fixed-income earners (essentially workers) to capital owners, from current debt-holders to future tax-payers.
- b) in a situation of high inflation, there is a tendency for certain long-term financial markets to shrink (e.g. fixed-interest mortgages). A related outcome is a strong bias in the financial structure of enterprises towards borrowing, rather than capital raising, with negative effects on financial stability and competitiveness.
- c) high inflation goes hand in hand with increased variability of both aggregate price level and relative prices. The higher price level uncertainty would impose a risk premium on interest rates - in turn resulting in lower investment - and complicate the conduct of macroeconomic policy. Relative price uncertainty blurs the informational content of the price system with a negative impact on the allocation of resources. Both elements have negative effects on output.
- d) as a result of the above effects, one would expect a negative relationship between output growth and inflation. On the basis of a panel of around 100 countries in the period 1960-

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<sup>1</sup> In practice, however, the distinction between anticipated and unanticipated inflation partly loses significance, in that all the conditions to neutralise the effects of inflation bouts are not fulfilled in the real world, even in the extreme case of fully anticipated inflation.

<sup>2</sup> For recent surveys on the subject, see Briault (1995), IMF (1996) and Mishkin and Posen (1997).

90, and after controlling for several other growth determinants, Barro (1996) finds a significant negative correlation.<sup>3</sup>

- e) while the costs of moderate inflation - say, below 10% a year - have been difficult to detect in the growth literature, there are grounds to believe that they may be more important than usually thought. In a recent paper, Martin Feldstein (Feldstein, 1996) estimates that the benefits of moving towards price stability from relatively low inflation rates are substantial, once the distorting effects of a nominalist tax system on resource allocation are taken into account. He concludes that reducing the inflation rate from 4% to 2% in the US would lead to an annual gain of between 0.7 and 1.6 per cent of GDP.

### **ECB independence and credibility**

A high degree of price stability represents both an entry criterion and a permanent feature of the monetary environment in EMU. Ensuring that goal, thereby consolidating the culture of monetary stability which has been established in the past several years will be the task of the ECB<sup>4</sup>.

According to the mandate of Art. 105 of the Treaty, the primary task of the ECB is "to maintain price stability". As pointed out by von Hagen (1996), "this mandate is much stronger and narrower than the mandate of Germany's Bundesbank whose principle task (...) is to 'safeguard the currency'" (von Hagen, 1996, p. 1). To the extent that the price stability objective is not jeopardised, the ECB is called upon to support the general economic policies in the Community. In order to fulfil its mission, the ECB is provided with an independent status by the Treaty.

A large body of empirical literature has established that, in the case of industrialised countries, a higher degree of independence goes hand in hand with lower inflation<sup>5</sup>. The degree of correlation is strong especially for the 1970s and 1980s. This suggests that an independent central bank may provide the appropriate response to the kind of inflationary shocks that hit the western economies in the 1970s and help promote a culture of monetary stability, as in the 1980s.

How independent will the ECB be?

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<sup>3</sup> The correlation becomes statistically insignificant for inflation rates below 20%. However, as Barro points out, "the results indicate that there is not enough information in the low-inflation experiences to isolate precisely the effects of inflation on growth, but do not necessarily mean that this effect is small at low rates of inflation...In particular the data would not reject the hypothesis that the relation between growth and inflation is negative at low rates of inflation and of the same magnitude as for higher rates of inflation" (Barro, 1996, p. 57).

<sup>4</sup> The Treaty draws a distinction between the tasks of the European System of Central Banks (ESCB) and those of the European Central Bank (ECB). The former includes the ECB and the national central banks of the EMU participants. Given the general stance of the analysis hereafter, this paper, for simplicity, only refers to the ECB as an all-embracing body.

<sup>5</sup> See, Cukierman (1992) and Alesina and Summers (1993). A summary of the evidence is presented in IMF (1996). For dissenting voices, see Barro (1996) and Jenkins (1996).

In assessing the degree of independence of a central bank, a fundamental distinction has been made between ‘goal independence’ and ‘instrument independence’. A central bank which can set its own final target has goal independence, while it has instrument independence if it controls the levers of monetary policy<sup>6</sup>.

On both counts, the ECB is high-scoring. It has the freedom on the monetary policy instruments to pursue price stability, bound only by the principle of respecting market laws. It can set its own inflation goal, consistent with the requirement of price stability. The EMI, in its report on the single monetary policy in Stage Three (EMI, 1997), has already indicated that the ECB will announce publicly a quantified definition of price stability.

The whole framework of the Treaty implies that the degree of independence of the ECB is probably the highest of any other central bank in the world:

- the legal provisions on independence embodied in the Treaty (from the prohibition for the ECB to take or seek instructions from other bodies to the long term appointment and no possibility of renewal of Board members) are very strong;
- the constitutional character of those rules and the need to gather unanimity of Member States and Parliamentary ratification to change them, shelter ECB independence from virtually any attempt at dilution;
- the budgetary constraints on government deficits and debt and the “no bail-out” clause strengthen the credibility of legal provisions (see below).

A strong independent status, however, does not automatically translate into higher anti-inflationary credibility. The experience of certain central banks having acquired a high degree of independence to fight inflation (e.g. New Zealand) shows that disinflation may still prove costly in terms of foregone output.

The ECB will have to earn its anti-inflationary credibility vis-à-vis the markets. Therefore, it is often argued that at the beginning of Stage Three, the ECB would conduct an over-restrictive monetary policy in order to quickly establish a ‘hawkish’ reputation. It is further argued that the likelihood of such behaviour by the ECB is greater the larger the size of monetary union, due to the perceived weakness of certain participants.

However, this threat is likely to be overrated. First of all, the inflation entry criteria ensures a high degree of price stability as from the outset of Stage Three. Second, the ECB will build upon the strong anti-inflationary commitment by central banks throughout the EU, which clearly signals that nowadays there is no difference in the weight attributed to inflation in their objective function. Therefore, the benefits of the investment in anti-inflationary reputation built over the past several years are expected to be inherited by the ECB, whatever the initial composition of EMU.

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<sup>6</sup> See, Fischer (1995). The two types of independence are also referred to as ‘political’ independence and ‘economic’ independence (Grilli et al., 1991). In the two strands of the literature on central bank independence, Rogoff (1995)’s conservative central banker has both types of independence. In the principal-agent approach of Persson and Tabellini (1993), the central bank (agent) has instrument independence, but the government (principal) sets the goal.

### **Yardstick for price stability**

As pointed out above, the Treaty does not provide a definition of price stability. Should it be interpreted literally as zero inflation (if not price level stability altogether) or could a certain range of low inflation also be compatible with the price stability objective?

A number of arguments have been put forward against trying to enforce zero inflation. Due to failure to take 'quality improvements' in goods and services fully into account, available indices may overstate actual inflation. To the extent that nominal interest rates cannot be negative, a positive inflation rate allows negative real interest rates, which may be helpful in pronounced economic downturns (the so-called Summers effect<sup>7</sup>). Furthermore, a zero inflation increases the likelihood of actual deflation in the event of a negative shock, with potentially disruptive consequences on financial stability<sup>8</sup>.

More generally, it has been argued that the Phillips curve may become substantially flatter at very low inflation rates. If the frequency of price adjustment depends negatively on the rate of inflation, the responsiveness of prices to shocks is lower at very low inflation rates. Second, if nominal wages are assumed to be inflexible downward, a positive rate of inflation would allow a lowering of real wages in the event of a shock. Finally, as inflation variability tends to be lower at low inflation rates, price changes are more likely to be interpreted as changes in relative prices, thereby leading to higher output and employment reactions<sup>9</sup>.

Does the above reasoning imply that a relatively high rate of inflation is necessary for 'greasing' the economy's wheels? The answer is no. The benefits of price stability listed above would be eroded with a higher inflation rate. The higher uncertainty about inflation would contribute to setting wages at a non-market clearing level, thereby reducing output and employment. Furthermore, experience shows that it may be difficult to stabilise inflation at relatively high levels due to expectationally-driven inflation spirals in the event of shocks.

The conclusion is that a positive, but low inflation should be the goal of monetary policy. The EMI has indicated that there has been a broad consensus amongst central banks for several years that a range of 0%-2% inflation per annum is an appropriate goal for monetary policy (EMI, 1997). This range would allow somewhat diversified inflation rates.

In federal states, such as Germany and the US, regional differences in inflation can be significant. In Germany, for instance, differences of over 0.5% points can be observed between the four major regions of former West Germany. As recalled by von Hagen (1996), in the case of the US, the consumer price index rose by 31.5 per cent between 1985 and 1991 in the Northeast Region, but by only 24 per cent in the Southern Region. To some extent these variations stem from differences in consumption goods baskets.

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<sup>7</sup> See Summers (1991).

<sup>8</sup> This risk has been emphasised by Bernanke and Mishkin (1997).

<sup>9</sup> The first two arguments, which have a New Keynesian flavour, have been put forward by Ball et al. (1988) and Akerlof et al. (1996). The third argument is found in the classic Lucas (1973).

One can reasonably expect that regional inflation differences will be more pronounced in EMU, as the EMU-area will comprise several economies in which GDP per head is considerably below the EU-average. In these so-called “catching-up” countries, productivity, in particular in manufacturing, is likely to grow faster than in the other EMU-countries. Stronger productivity growth in manufacturing - the traded goods sector - may lead to higher wage increases without affecting output prices. If wage increases spill over to the services sector - generally producing non-traded goods, with a lower productivity growth - its output prices are likely to rise. Therefore one can expect a relatively higher inflation rate in a catching-up economy than in the euro-zone average (the so-called Balassa-Samuelson effect).

### **The conduct of monetary policy**

How should the ECB conduct monetary policy in stage three of EMU? Amongst the several possible monetary strategies, the EMI has retained two, monetary targeting and inflation targeting (EMI, 1997).

Both strategies have adepts in the real world, although there is a noticeable shift towards the second. The Bundesbank was the first central bank to adopt monetary targets after the collapse of Bretton Woods and nowadays Germany remains, together with Switzerland, the only country committed to such strategy (von Hagen, 1995). Since the early 1990s, a number of countries (namely, New Zealand, Canada, UK, Australia, Sweden, Finland and Spain) shifted to a direct inflation target<sup>10</sup>.

The first strategy selects a monetary aggregate as the intermediate target of monetary policy. The properties of an efficient intermediate target are a high correlation with the final objective, controllability by the monetary authorities, and the ability to affect expectations. To what extent do monetary aggregates satisfy these requirements?

Estrella and Mishkin (1996), looking at the behaviour of monetary aggregates in the US and Germany since the end of the 1970s, draw a negative conclusion: frequent velocity shifts alter the relationship between money growth and nominal income and, whatever the informational content of monetary aggregates in earlier periods, they do not seem to provide adequate and consistent information at present. However, as pointed out by von Hagen (1996), the choice of the appropriate intermediate target is not determined by the stability of the demand for money *per se*, but by the relative stability of the demand for money and that of alternative intermediate target *vis-à-vis* the final objective, inflation. Therefore, monetary targeting may still be useful. As at the beginning of Stage Three (because of portfolio shifts) broad money is likely to be more unstable than transactions demand for money, von Hagen suggests that the ECB should retain a narrow money aggregate as intermediate target. This may still be subject to the well-known Goodhart-critique which implies that once targeted previously stable monetary aggregates tend to become unstable.

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<sup>10</sup> The experience with monetary and inflation targeting is surveyed in See Estrella and Mishkin (1996), Almeida and Goodhart (1996), Bernanke and Mishkin (1997).

Everything considered, the main advantage of adopting monetary targeting appears to be the continuity of monetary conduct in EMU with that of the anchor country in the ERM. This may help inherit Bundesbank's anti-inflationary reputation. However, in the event of instability of monetary aggregates, the ultimate question is whether the newly-created ECB will be able to 'afford' to exceed the announced targets without jeopardising its credibility.

The alternative option is direct inflation targeting. Some of the countries that embraced an inflation target in recent years did so after being disillusioned with formal intermediate targets<sup>11</sup>. Such shift took place, in some cases, in parallel with conferring a higher independence on the central bank. As stressed by Mishkin and Posen (1997), if the announcement is credible, an inflation target may represent a useful device for affecting expectations and influencing price and wage setting. However, since inflation behaviour is not under the perfect control of the monetary authorities, inflation targets may be exceeded in the event of shocks, with a possible negative impact on central bank credibility.

Under inflation targeting, the central bank has to choose whether to target a price-level path or an inflation-rate path. While the latter allows for base drift, the former doesn't (therefore higher-than-targeted inflation rates in certain periods will have to be compensated by lower-than-targeted rates in subsequent periods). The inflation rate fluctuates more in the short-run under price-level targeting, as monetary authorities strive to get back to the price-level path, while it is more stable in the long-run<sup>12</sup>. In practice, however, in the real world, there are no examples of monetary regimes adopting an explicit or implicit price level targeting<sup>13</sup>.

While in the literature, there is often a strong dichotomy between monetary targeting and inflation targeting, the actual differences between the two strategies are less acute. Indeed, as stressed by Almeida and Goodhart (1996), the real difference is between pursuing a publicly announced inflation objective and a purely discretionary policy, the latter being characterised by the well-known Barro-Gordon inflation bias.

This 'quasi-equivalence' conclusion is strengthened by the analysis of the actual behaviour of monetary targeters. What does the Bundesbank 'really' target, beyond official announcements? von Hagen (1995) argues that inflation targets are a central ingredient in Bundesbank strategy and the monetary target is never regarded as absolute. Similarly, Bernanke and Mihov (1996) show that by holding constant the current inflation forecast, the Bundesbank responds very little to changes in forecasted money growth. As such it is best described as an 'implicit' inflation targeter or a 'hybrid' case<sup>14</sup>.

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<sup>11</sup> Svensson (1996a) shows that inflation targeting corresponds with selecting the central bank's inflation forecast as an intermediate target.

<sup>12</sup> However, Svensson (1996b) obtains the opposite result in a model with unemployment persistence.

<sup>13</sup> See, however, the next footnote.

<sup>14</sup> Moreover, von Hagen (1995) shows that, occasionally, in the past 20 years, the Bundesbank shifted from an inflation target to a price level target. to prevent pronounced, discrete jumps in the price level to translate into higher inflation expectations, thus triggering a cost-push inflation.

This 'eclectic' view of the conduct of monetary policy is confirmed by the EMI (1997). The report recognises that, "in practice, central banks following a monetary strategy adopt a more flexible approach (and) the difference between monetary and inflation targeting are not overwhelming". Furthermore, given the likely instability of money aggregates in the early years of EMU, the ECB will have to rely on a larger set of variables in assessing the monetary stance. Finally, having decided to make public a quantified definition of price stability, in the event of conflict between monetary developments and the inflation goal, the ECB is likely to give priority to the latter.

### **Transmission of monetary policy**

Monetary policy aims to achieve its ultimate goal, price stability, by exerting an influence on price expectations and economic activity. The differences in monetary policy instruments and in financial structure between the Member States mean that the speed and impact of monetary policy on the behaviour of economic agents differs from country to country. These differences could affect the effectiveness of monetary policy in EMU.

As each national Central Bank has its own set of monetary policy instruments, based on national preferences and tradition, there are already considerable differences in the impact the policy instruments have on money market rates. These can be attributed to a different use of reserve requirements, discount window, Lombard rate, etc.

The structure of the financial system may influence the impact of money market rates on the cost of credit. As there is no perfect substitution between financial assets and bank loans/deposits, one of the factors that plays a role is the share of bank intermediation in credit to the private sector (or its complement, the degree of securitisation of credit). Also the degree of competition in the banking sector has an impact on the speed at which policy rate increases are passed through.

The impact of the market and lending rates on economic activity depends on various factors, such as the maturity structure of debt, including public debt, the adjustability of interest rates, the type of assets held, regulations, etc. Kneeshaw (1995), while admitting the risk of oversimplification, identifies two groups of countries. In the first group, households hold mainly shares and housing, leading to important wealth effects, and the impact of policy rates on the average rates paid on debt is relatively fast and large. In the other group, home ownership is less widespread and household financial wealth largely takes the form of debt claims. Wealth effects and cash-flow constraints tend therefore to remain limited.

Differences in the sectoral composition of output may also affect the transmission mechanism, to the extent that they entail a different capital intensity of production and thus influence the financial structure of firms.

Once in EMU, if the impact and speed of transmission of monetary policy vary between the Member States, it may have an impact on the effectiveness of the ECB's policy and even lead to adverse reactions if the effect on demand is weaker in those regions where inflationary pressures are the strongest.

The establishment of the ECB and consequent use of a single set of monetary policy instruments in all participating Member States will automatically eliminate any differences in the transmission mechanism from policy rates to money market rates. Differences in the other parts of the transmission mechanisms are not likely to disappear swiftly. There will, however, be some pressure for the financial structures of the private sector to converge. The prospect of price stability is likely to induce a lengthening debt maturity. As Borio (1995) has shown, countries that have enjoyed historically low inflation rates tend to have a higher share of medium and long-term instruments. The current low interest rates, which are an incentive for lengthening the maturity of debt, will facilitate the convergence of the transmission mechanism. The latter could also be enhanced by policy measures.

## **B. SOUND PUBLIC FINANCES**

### **The benefits of budgetary discipline**

Maintaining budgetary discipline in stage three of EMU is an important condition to underpin the stability of the single currency and allow a more favourable policy mix. The positive effects of sound public finances, which go beyond the question of EMU, can be summarised as follows:

- a) a sound fiscal policy, by allowing a reduction in interest rates and “crowding in” private investment, will lead to higher growth of the capital stock in the medium and long run. This will help to shift the economy onto a higher growth path and, by reducing the scarcity of capital, will be reflected in permanently low real interest rates. Since EMU has an important weight in the international economy, these developments will help bring about low interest rates world-wide, thereby contributing to step up growth at the global level.
- b) by fostering low and stable inflationary expectations, low budget deficits and debts will help maintain stable prices. They will also reduce the likelihood or the economic costs of a market test of the anti-inflationary credibility of the newly established ECB.
- c) increasing public saving is important in order to face the budgetary consequences of demographic developments. The ageing of the population and the rise in dependency ratios will inevitably put a heavy burden on social spending, which will be only partly compensated by the likely spreading of private pension schemes.

- d) fiscal discipline, by curbing public debt ratios and hence reducing the interest burden on public debt, will allow the restructuring of government spending by devoting a higher share of public money to political and economic priorities such as education and infrastructure investment.
- e) lower deficit and debt levels create more room to cope with adverse economic events. This is true in general. But, as will be argued in Part II, this is particularly important once the single currency is in place because the accommodation of country-specific shocks will then to a higher degree rest with budgetary policy.

The commitment to budgetary discipline, as embodied in the Treaty on European Union, foresees reference values of 3% for the deficit and 60% for the debt, both measured against GDP.

### **Budgetary discipline: national and EMU perspective**

Budgetary discipline is important both from a purely national perspective and for EMU as a whole. While “political economy” considerations dominate the national perspective, international spillovers explain the need for discipline at the EMU level.

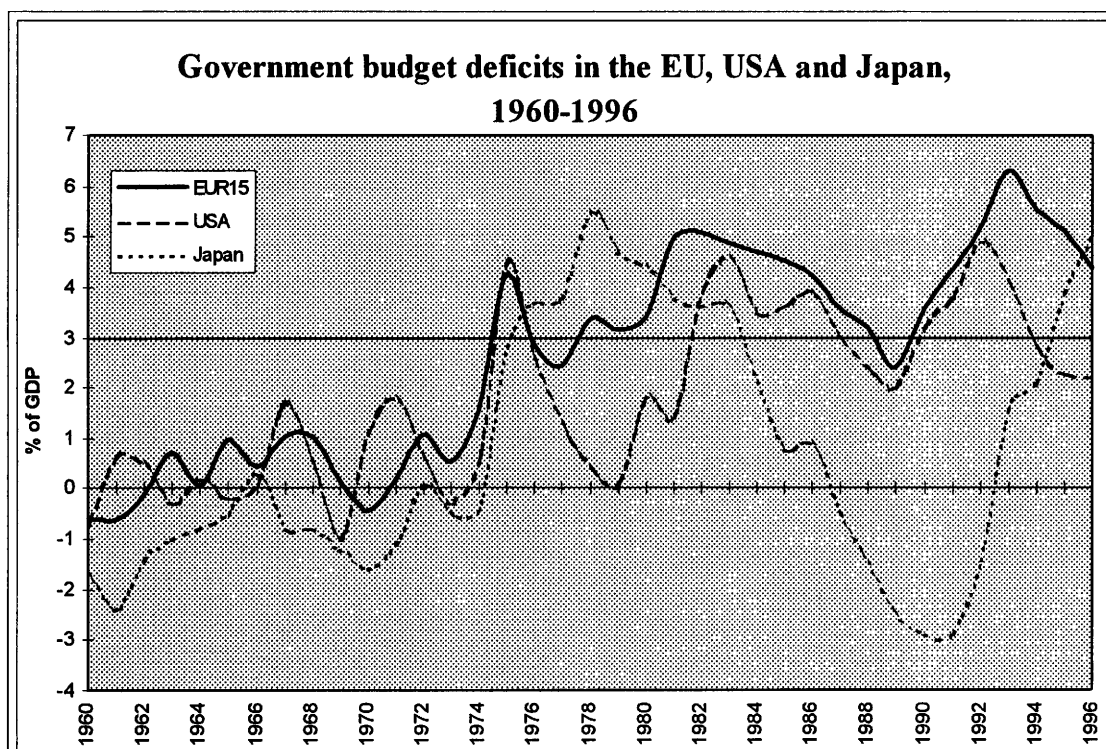
#### *The national perspective*

The accent that the Treaty puts on fiscal discipline finds its roots in the recognition that the deterioration of public finances in Europe in the last twenty five years needed to be stopped and reversed before ending up in an ‘unsustainability trap’ and a crowding-out of investment.

A “political economy” interpretation of the Maastricht criteria is that Member States, having become increasingly aware of the unsustainable nature of their public finances, have decided to tie their own hands vis-à-vis domestic public opinions by a solemn commitment enshrined in the Treaty.

The worsening in budget deficits is clearly evident in Graph 1 which shows the developments of government budget balances in the EU, the US and Japan.

**Graph 1**



Source: European Commission, DG II database.

The government budget balance for the EU as a whole, after hovering around equilibrium until the first oil price shock, deteriorated by 3 to 4% percentage points, and briefly registered a deficit under 3% of GDP on only two occasions in the past twenty years. A similar structural break in budgetary behaviour also occurred in the other major economies in the early 1970s, but these countries were able to quickly redress the situation to a large extent.

The behaviour of the stock of public debt indicates that budgetary imbalances have become structural during the past two decades. Table 1 presents the change in the public debt to GDP ratio in EU countries in the period 1970-96 during periods of positive and negative output gaps.

**Table 1: Business cycle and public debt accumulation 1970-1996**

	Change in debt/GDP in periods of positive output gap (% points)	Change in debt/GDP in periods of negative output gap (% points)	Public debt/GDP (%) at the end of 1996
<i>Recession effects fully offset in non recession periods</i>			
L	-23.2	4.2	6.4
UK	-30.0	4.5	54.8
<i>Partial offsetting in non-recession periods</i>			
FIN	-8.5	51.6	58.7
S	-6.8	54.4	77.7
E	-0.3	54.3	69.6
<i>Debt accumulation also in non-recession periods</i>			
A	17.6	32.8	70.0
B	8.0	58.3	130.0
D	18.5	23.6	60.7
DK	6.3	51.2	70.2
EL	41.5	52.7	111.8
F	9.2	26.5	56.2
I	23.1	62.5	123.7
IRL	3.5	19.5	72.8
NL	5.7	31.2	78.5
P	12.3	38.1	65.6

Notes

1. The output gap is defined as the difference between the actual and trend GDP measured as a share of trend GDP.

2. Period 1977-96 for F, period 1975-96 for NL and period 1973-96 for P. The build-up of debt in Fin and S during the 1991-93 recession is partly attributable to financial operations and other factors not affecting the deficit (the so-called stock-flow adjustment).

Source

European Commission, DG II database.

The evidence shows that a large majority of Member States continue to accumulate public debt even in periods characterised by above-trend growth.<sup>15</sup>

Therefore, the experience of Europe in the last two decades strongly supports the view that budgetary policy did not follow the prescriptions of “tax smoothing” theory. This allows for the accumulation of debt during recessions, but requires debt decumulation in periods of high growth. Actual budgetary behaviour in Europe, far from conforming to tax smoothing, indicates that fiscal policies have tended to respond to various political factors, resulting in a deficit bias.<sup>16</sup>

<sup>15</sup> However, in two Nordic countries, if past experience is confirmed, one can confidently expect that the large debt accumulation in the 1991-93 crisis will be re-absorbed in the coming years.

<sup>16</sup> The recent literature on the “political economy” of budget deficits is surveyed by Alesina and Perotti (1995) and Hahm et al. (1995).

The debt accumulation of the past decades is not sustainable for several reasons. First, the rise in dependency ratios, due to the ageing of the population, will inevitably put a heavy burden on social spending in the years to come.<sup>17</sup> Second, several authors<sup>18</sup> have pointed out that, without further tax harmonisation, the single currency, by reinforcing the effects of the Single Market, may have a negative impact, especially on the revenue side due to increased factor mobility and tax competition. Third, the loss of the exchange rate instrument in EMU will increase the importance of fiscal policy for stabilisation purposes. In addition, without credible budgetary consolidation, existing high or still growing debt ratios tend to increase interest rates by a risk premium and monetary policy is overburdened, both of which have a negative effect on the investment and the business climate.

### *The EMU perspective*

While the case for budgetary discipline from a purely national point of view is a powerful one, common discipline rules in EMU are first and foremost required because budgetary misbehaviour has systemic, EMU-wide implications.

Excessive public finance imbalances impinge on the objective of ensuring an adequate macro-economic policy mix. Budgetary discipline is important in order to prevent the overburdening of monetary policy in maintaining price stability, thereby avoiding higher-than-needed interest rates.

If public debt is perceived as being on an unsustainable course, the solvency of a government may be called into question. In such a case, the threat of financial instability spreading across EMU may result in pressures for various forms of bail out. Fiscal bail out goes *via* pressure for direct or indirect subsidies by the errant government. Monetary bail out may occur *ex post*, through monetisation of public debt, or *ex ante*, through the reluctance of the central bank to raise interest rates in the face of inflationary pressures.

If a government whose public debt is held largely by the banking system throughout EMU, faces a bankruptcy because of a reckless budgetary policy, financial instability could spread across the Union. Pressure for *ex post* monetary bail out would put the ECB in a dilemma because it would face a trade-off between ensuring price stability and promoting a well functioning payment system, as required by art. 105.

The logic of the Treaty is that the mere danger of bail out requires budgetary discipline enforced by the Union. This logic is not universally accepted. For instance, Eichengreen and von Hagen (1995) argue that it ignores that a government experiencing a budgetary crisis is able to raise taxes to service and redeem its debts. However, this counter-argument may not apply to EU countries where tax pressure is already very high and tax competition a reality.

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<sup>17</sup> See Franco and Munzi (1997).

<sup>18</sup> See Bovenberg et al., (1991), and Masson and Taylor (1993).

The independent status of the ECB, discussed above, goes a long way in appeasing bail-out fears of debt monetisation. However, there are strong arguments for believing that the anti-inflationary reputation-building task of the newly-created ECB will be greatly helped by sound initial and continuing budgetary positions of EMU members.

All in all, the deficit rule helps dispel concerns about the monetary-fiscal policy-mix, while the debt rule addresses the threat of financial instability and inflationary pressures linked to unsustainable stocks of debt. The deficit rule may also prove necessary in order to maintain price stability. Without a deficit criterion, markets may anticipate a possible inconsistency between monetary and fiscal objectives, thereby forcing the price level to adjust. Such adjustment would ensure that the present value of future budgetary surpluses is equal or larger than the present stock of debt so as to ensure government solvency. Therefore, “the deficit criterion’s inclusion in the Treaty (...) is necessary for the ‘functional independence’ of the central bank. Without it, the central bank would not be capable of controlling the price level, even if it had political independence and a mandate for price stability” (Canzoneri and Diba, 1996, p. 1).

### **How to achieve and maintain budgetary discipline? The Stability and Growth Pact**

The Excessive Deficit Procedure and the Stability and Growth Pact are the concrete EU answer to the budgetary discipline concern. The Excessive Deficit Procedure establishes that Member States shall avoid excessive deficits and provides two yardsticks for deficit and debt, - namely 3% and 60% of GDP, respectively - on the basis of which the budgetary positions of the countries should be assessed. The way in which general principles and procedures of the Treaty are to be implemented is specified in the Stability and Growth Pact.

The Pact, which was finally adopted by the European Council in Amsterdam in June 1997, starts by recognising that, in order to respect the 3% deficit ceiling even in unfavourable economic circumstances, government budgets should be close to balance or in surplus in the medium run, taking due account of national differences. In order to strengthen the credibility of the commitment to fiscal discipline, budgetary monitoring before the 3% deficit threshold is exceeded will be stepped up. Furthermore, a precise definition of the “exceptional and temporary conditions” of art. 104c(2) is provided and time limits are set on the various steps of the Excessive Deficit Procedure. Finally, the Pact specifies the type and scale of sanctions to be applied to EMU members with a persistent excessive deficit.

A number of questions have been raised in relation to the framework for budgetary discipline underpinning the setting up of EMU:

- a) are numerical rules the most effective commitment device to ensure budgetary discipline?
- b) what should be the criteria for selecting the medium-term budgetary target by EMU members, in the light of the previous discussions on budgetary policy spillovers?

- c) how should the behaviour of Member States adapt in order to conform with the Stability and Growth Pact requirements?

*Strict numerical rules as a commitment device*

*Numerical budgetary rules* reflect a transatlantic consensus on the way to ensure fiscal prudence: they have taken the form of Maastricht-type deficit and debt ceilings in Europe and the bipartisan accord to balance the budget by the year 2002 in the US.

An alternative option discussed in the literature on ensuring budgetary discipline is the establishment of *procedural rules* conducive to a responsible fiscal behaviour. They entail various reforms of the budget process and institutions. Recent literature has established that reforms in this area can indeed be effective in curbing the “short-termism” of politicians<sup>19</sup>.

The importance of effective budgetary procedures is recognised by the Treaty, which, in Protocol N° 5 on the Excessive Deficit Procedure, states that “Member States shall ensure that national procedures in the budgetary area enable them to meet their obligations in this area deriving from this Treaty”. Already many examples of tightening in procedures, such as more rigorous budgetary control, clearer arrangements between different levels of government, etc. have been introduced in the past several years. The pressure to maintain budgetary discipline is likely to result in further institutional and procedural changes.

Why has the EU opted for ‘common’ numerical rules, confining procedural rules largely to the realm of subsidiarity?

Numerical targets with clear political visibility may be perceived as more effective in re-dressing public finance imbalances, especially in the case of countries starting with very substantial budgetary disequilibria. Indeed, institutional reforms seem to be a natural device to ensure the non-reversibility of consolidation, rather than a trigger of a regime change. Moreover, the adoption of harmonised budgetary procedures would have led to fundamental problems from the point of view of national sovereignty. Also, institutional reforms are more difficult to monitor centrally, compared to numerical targets.

*Setting the medium-term national targets*

The Stability and Growth Pact leaves a certain flexibility to Member States in choosing their own medium-term budgetary objective. This is important, given the different size of the automatic stabilisers in national economies, as well as other structural factors (such as the different impact of ageing on the public finances of Member States). The

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<sup>19</sup> The academic literature on budgetary reforms was pioneered by von Hagen (1992) and has been recently surveyed by Alesina and Perotti (1996a, 1996b) and Corsetti and Roubini (1996). For an application to Community Member States, see von Hagen and Harden (1994) and Bayoumi and Eichengreen (1995); Poterba (1996) has applied this approach to the US State governments.

Council will have the task of assessing the coherence between the preferred national option and the general thrust of the Pact. This choice may harbour some potential conflicts.

Monetary union members with relatively low debt are likely to put a strong accent on debt sustainability issues. These countries would, therefore, prefer a lower deficit the higher the debt - so as to reduce the risk of potential financial instability - as a principle in the selection of national medium-term targets.<sup>20</sup>

By contrast, high debt members may prefer less ambitious budgetary objectives the higher the stock of debt. Two arguments underpin this position. First of all, as part of the interest burden actually represents compensation for the loss of real value of the debt eroded by inflation, identical levels of *nominal* budget deficit (as a share of GDP) correspond to lower *real* (inflation-adjusted) levels of deficit the higher the stock of debt. Secondly, the primary surplus consistent with a given level of budget balance depends positively on the stock of debt. As a result, an objective of lower deficit or higher surplus for countries with high levels of debt may entail disruptive consequences by requiring them to go beyond their “politically feasible primary surplus” in Blanchard’s definition (Blanchard, 1984).

#### *Implications of the Stability and Growth Pact for the behaviour of national budgetary authorities*

The Stability and Growth Pact commits Member States to move towards a budgetary position of close to balance or in surplus to prevent budget deficits of EMU members from exceeding the 3% ceiling.

The analysis of budgetary policies of EU countries in periods of severe recession shows that, to the extent that past behaviour is relevant for assessing EMU developments, a room for manoeuvre of 3% points of GDP would allow Member States to overcome most periods of economic difficulties without running into an excessive deficit position<sup>21</sup>. Therefore, once the balanced-budget position is attained, fiscal policy will generally have a sufficient degree of flexibility for the implementation of effective stabilisation policies in EMU. However, in the early years of EMU, most countries will still be in transition to a balanced budget. This points to the need for a sufficiently rapid convergence by EMU members towards the medium term fiscal target in order to avoid excessive deficits in the event of a cyclical downturn.

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<sup>20</sup> The suggestion of allowing full flexibility of budgetary policies for debt ratios below the 60% reference value and reducing it progressively for higher debt ratios is put forward by Eichengreen (1997). According to this proposal, the implementation of procedural budgetary reforms should allow countries to “buy” flexibility in the implementation of the Stability and Growth Pact during the early years of EMU. However, such a solution may run into problems if the markets consider it in conflict with the ‘quasi-legal system’ of Maastricht, thereby calling into question the determination by member countries to stick to strict budgetary discipline while in EMU.

<sup>21</sup> For a ‘retrospective’ application of the Stability and Growth Pact requirements, see Buti et al. (1997).

difficult for the ECB to rely heavily on monetary aggregates as intermediate targets in the conduct of monetary policy.

### *Exchange rate policy*

Individual EU member states have generally been greatly concerned about fluctuations of the DM vis-à-vis the dollar. The reason is that important movements in the DM-dollar exchange rate tend to produce strains on intra-EU exchange rates. In particular, depreciations of the dollar, have often been accompanied by a weakening of European currencies relative to the DM, as was the case most recently in the Spring of 1995. Such currency turmoil have been detrimental to EU countries, given their relatively small size and large degree of openness.

With the advent of EMU, participating EU countries will become relatively insulated from fluctuations in the dollar. Nonetheless, an attitude of “benign neglect” vis-à-vis the exchange rate of the euro, an attitude long adopted by US authorities with respect to the external value of the dollar, may be neither feasible nor desirable. Begg et al. (1997) argue that a pure flexible exchange rate system, implying “benign neglect”, would be inappropriate because of the risk of misalignment.

### **Impact on the external value of the euro**

How will the exchange rate of the euro behave? There are two facets to this problem: strength and volatility.

In the long run, two basic elements favour a strong euro. First, the ECB’s commitment to price stability and, more generally, the macro-economic framework of EMU point to low interest rates and a strong currency. Second, as indicated previously, over time the euro is likely to substitute partially for the dollar, thereby raising the relative demand for euros as a result of both official reserve shifts and private portfolio diversification.

In the short term, however, there is uncertainty regarding the strength of the euro. On one hand, the European economy, partly as a result of EMU, is likely to enjoy an upswing leading to an exchange rate appreciation. On the other, the international demand for the euro is likely to be lower than for the combined underlying currencies. European central banks might wish to decrease their holdings in EU currencies, albeit very gradually, as the need to stabilise intra-European exchange rates will largely disappear. At the same time, private investors wishing to maintain the degree of diversification of their portfolios would need to shift to non-EMU currencies.

Many observers also expect a volatile euro exchange rate - see, for instance, Bénassy-Quéré et al. (1997) and Cohen (1997). Their prediction is largely based on the assumption of “benign neglect”. The new preference of European monetary authorities for domestic rather than external equilibrium is supposed to lead to increased exchange rate volatility. This link is challenged by Martin (1997) who finds evidence of a hump-shaped relationship between country size and the variability of the exchange rate. This

finding is consistent with the view that a large country has little incentive in using the exchange rate strategically because the size of the traded goods sector is small. This works in the direction of less exchange rate volatility. Furthermore, allegedly easier coordination among a reduced number of actors on the international stage, may also reduce volatility.

It should be pointed out, however, that the debate on the strength of the euro is somewhat misplaced. A policy mix involving an acceleration in supply-side reforms would help to reduce the counter-inflationary burden on monetary policy and provide the conditions for a strong economy and low interest rates, resulting in a sound but not overvalued single currency. Conversely, a poorly managed economy can also create periods of artificially strong exchange rates. For example, an expansionary fiscal stance or inappropriately high wage settlements in major parts of the euro zone would force the ECB into a tighter monetary stance (because of actual inflationary tensions and the implications of medium-term fiscal debt unsustainability for the credibility of the ECB). The consequences of high interest rates could be an - artificially and temporarily - inflated euro exchange rate.

## **II. ADJUSTMENT IN EMU**

In EMU, all members will share the same monetary policy, regardless of their individual economic circumstances. This potential constraint has been one of the main subjects of preoccupation in the literature on EMU. If countries are affected by idiosyncratic shocks or experience de-synchronised business cycles, giving up national monetary independence may prove costly. The potential cost depends on two factors: the likelihood of economic disturbances calling for monetary policy or exchange rate adjustment, and the availability of alternative adjustment channels. The analysis below argues that, already today, the nominal exchange rate is the pertinent instrument for adjustment only in a limited number of cases. The new economic environment of EMU will further reduce the frequency of cases where an exchange rate change may have been called for and will enhance alternative adjustment channels. The literature may, therefore, have over-emphasised the costs of the loss of the exchange rate instrument in EMU.

### **A. ECONOMIC SHOCKS AND CYCLES**

#### **Taxonomy**

Clearly, shocks affecting all the economies of the monetary union in a similar fashion as well as synchronised cycles, do not call for a change in national parities. If need be, the exchange rate of the euro vis-à-vis third currencies, will adjust to re-establish equilibrium.<sup>26</sup> Even the category of asymmetric disturbances is too wide from the point

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<sup>26</sup> Shocks that are symmetric in origin may, in the end, turn out to produce differentiated effects across member countries if transmission mechanisms or policy responses are different. However,

of view of assessing whether a change in the exchange rate is potentially called for. The following classification should be considered:

- a) country-specific versus sector-specific shocks and cycles. Only if a shock stops at the national boundaries or if cycles are clearly de-synchronised may the change in nominal exchange rate, which leads to a modification of all the prices relative to foreign competitors, be appropriate. If asymmetric shocks essentially concern a particular industry, the use of monetary policy would be wrong: “if the monetary authorities induce a depreciation of the exchange rate in order to assist the particular industry(ies), the associated fall in interest rates could cause overheating in construction, and the rise in the price of imported raw materials could damage transportation and defence.” (Mélitz, 1996, p. 17).
- b) real versus financial shocks: even within the category of country-specific shocks, exchange rate changes may be desirable only if faced with variations in aggregate demand, while “nominal exchange rate flexibility is definitely undesirable in the face of domestic financial market shocks (say liquidity preference (money demand) or shocks to the domestic money supply process)” (Buiters, 1995, p.25). In such event, fixed exchange rates allow money to flow across national borders to meet the higher (or lower) demand without changes in the nominal (and real) interest rate<sup>27</sup>:
- c) Temporary versus permanent shocks: while for temporary shocks (essentially demand-related), the use of monetary policy may be of help to stabilise aggregate demand, its use in the case of shocks having long-lasting effects (mainly supply-related) is far from obvious. As permanent shocks call for “adjustment” rather than “stabilisation”<sup>28</sup>, the use of the exchange rate in an attempt to buy time, may simply postpone the necessary factor reallocation. If, as evidence shows, structural change is already too slow in Europe compared to, say, the US, slowing it down further through monetary cushioning may be exactly what policy makers should want to avoid. In the broad category of permanent shocks, differentials in productivity growth between mature and catching-up economies (the so-called “Balassa-Samuelson” effect), is often mentioned as an argument in favour of retaining the exchange rate instrument. However, as argued in Section I-A, such differentials, which operate only gradually over time, can be accommodated with fixed exchange rates.
- d) Exogenous versus policy-induced shocks: an important limitation of most of the OCA literature is that it treats economic disturbances as exogenous phenomena with which policy authorities are suddenly faced. In reality, policy-induced shocks or shocks originating in labour and employer’s unions counting on monetary or

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in the new monetary and fiscal regime, these differences will gradually fade (see Section I-A and point (d) below).

<sup>27</sup> The alleged ineffectiveness of monetary policy under fixed exchange rates in the simplest small country version of the Mundell-Fleming model can be read as a full insulation of fixed exchange rates from monetary disturbances.

<sup>28</sup> See Mélitz (1996).

fiscal bail out, are probably more common than usually reflected in the OCA literature. Political business cycle models as well as the literature on the political economy of budget deficits surveyed in Section I-B point to potential bias in the behaviour of policy makers. Accordingly, EMU's stability framework - budgetary discipline rules as well as independence of the ECB<sup>29</sup> - is likely to reduce the likelihood of policy-induced shocks.

The above taxonomy indicates that the exchange rate instrument is potentially useful in rather narrow circumstances, namely in the events of disturbances which are simultaneously country-specific, real and temporary. The probability of such event will be even smaller in EMU given the new economic and policy framework: trade integration will further reduce the significance of national borders, and the stability-oriented macro-economic policies will curtail policy-induced shocks.

Furthermore, even in the remaining cases when the exchange rate may have proved potentially useful, its optimal use may not be feasible in an environment of high capital mobility given the risks of over-shooting and mis-alignment. More generally, the experience of monetary integration in Europe indicates that perfect exchange rate flexibility is not the correct "anti-monde" when discussing the costs and benefits of EMU. In particular, the type of economic relationships within Europe (namely the prevalence of intra-industry trade) lead to devaluations being perceived as typical beggar-thy-neighbour policies, thereby rendering exchange rate flexibility a non-viable option.

### **Empirical evidence**

As pointed out above, the exchange rate is a pertinent instrument for adjustment only in a limited sub-set of cases. While conceptually this is an important conclusion, the relevance and relative frequency of 'EMU-critical' shocks boil down to an empirical question. A vast literature has sought to determine the nature of shocks undergone by EU members. While a multi-faceted review is beyond the scope of this paper<sup>30</sup>, the following indications seem to emerge from empirical analyses:

- i) Studies suggest the existence of a number of EU countries with highly correlated disturbances, and other countries showing more differentiated economic behaviour. Several studies detect the existence of a "core" and a "periphery", but the composition of the two groups varies a great deal across studies. Moreover, they are based on historical data and therefore essentially backward-looking.<sup>31</sup>
- ii) A significant proportion of shocks is industry-specific, as shown by Bini-Smaghi and Vori (1992) and, more recently, by Bayoumi and Prasad (1995). This finding holds for both sides of the Atlantic.

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<sup>29</sup> On the latter, see the discussion in the section on monetary policy and the exchange rate below.

<sup>30</sup> For a survey, see Mélitz (1996).

<sup>31</sup> For a recent survey, see Beine (1997).

- iii) The EU-wide plus region-specific components of shocks are important relative to the purely national component. Analysing changes in unemployment, over the period 1971-93, Viñals and Jimeno (1996) conclude that at the national level, the EU-wide component explains over half of the variance of changes in unemployment, increasing to over 80% over the medium term. At the regional level, the combined effect of EU-wide and region-specific shocks account for about 80% of the variance of regional unemployment rates. A similar result can be found in Forni and Reichlin (1997). In addition, there is evidence that the correlation of regions across national borders has been increasing over time. For instance, “in the post-EMS period, northern Italian regions display higher correlations with German regions than with southern Italian regions” (Fatas, 1997, p. 749).
- iv) Inferences based on pre-EMU observations may be highly misleading if, as argued, EMU amounts to a veritable regime change. A crucial question is the impact of EMU on national specialisation, and on the likelihood of country-specific shocks. The literature holds two opposing views on this issue. The first, associated with Krugman (1991, 1993), claims that the combination of the single market and EMU is likely to increase regional specialisation in Europe, implying greater vulnerability to region-specific disturbances. However, even if this scenario proved correct, it is far from obvious that ‘regions’ would coincide with ‘nations’, and therefore that ‘national’ specialisation would increase. The second view, based on empirical findings showing that European integration tends to promote intra-industry trade and income convergence, holds that EMU is likely to reduce national specialisation and, thereby, lower the vulnerability of Member States to idiosyncratic disturbances.<sup>32</sup> Frankel and Rose (1996) find evidence consistent with the latter view and conclude that a country is more likely to satisfy the OCA criteria for creating a monetary union *ex post* than *ex ante*.
- v) According to Canzoneri *et al.* (1996), the exchange rate acts primarily as an asset price in the financial markets, rather than responding as an absorption mechanism for goods markets disturbances, as assumed in the OCA literature. Using quarterly data from 1970 to 1985, and focusing on the bilateral relationships between Germany and six other EU countries, the authors find that ‘real’ supply and demand shocks explain over 90% of the variation in relative output between a ‘extra-narrow’ EMU composed of Germany, Austria and the Netherlands and the other three countries (France, Spain and the UK). However, these shocks explain only about 25% of the variations in the exchange rate. Analogous results were found under a wider EMU including France.

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<sup>32</sup> See European Commission (1996).

## B. MARKET ADJUSTMENT

### Labour and product markets

For the reasons indicated in the previous section, it is improbable that the loss of the exchange rate instrument will greatly affect the capacity of Member States to respond to shocks, at least in the medium to long run. This may even be the case in the shorter run, provided there exist alternative adjustment mechanisms. The traditional OCA literature has emphasised one such mechanism, namely labour market adjustment, in the form of wage flexibility and/or labour mobility.

Since EMU prevents changes in the nominal exchange rate as a means of modifying the relative prices between countries, flexibility must be found elsewhere in the economy, namely in the adjustment of prices and wages. More precisely, what matters is cross-country relative wage flexibility to counter country-specific shocks. If prices and wages are sticky, adjustment will occur only slowly through the pressure of unemployment on wage settlements. However, as stated in section I-D, a stable macro-economic environment and the EMU “transparency shock” may help bring about the required wage flexibility.

If full adjustment cannot take place via changes in prices and wages, a high degree of labour mobility is required to prevent a surge in unemployment. The unfavourable comparison of the degree of mobility between Europe and the US is then often quoted as evidence that the former is not an optimal currency area<sup>33</sup>.

While in most of the traditional OCA literature, wage flexibility and labour mobility are presented as quasi-interchangeable, recent theoretical developments have pointed out that these two channels play a very different role according to the degree of persistence of shocks. In particular, in the event of transitory shocks, a low degree of labour mobility is beneficial because it prevents labour force drain: “temporary shocks call for stabilisation rather than adjustment. In the case of such shocks, corrective movements in the terms of trade would be helpful (...), but movements in productive factors, capital and labour, are exactly what we want to avoid” (Mélitz, 1996, p.29).<sup>34</sup> In the case of permanent shocks, factor reallocation may prove necessary. However, the use of the exchange rate to alleviate such shocks may not be appropriate because it would risk delaying the inevitable structural adjustment. More generally, Buiters (1995) points out that the type of cross-country mobility which would make up for the loss of the exchange rate - strictly temporary, that is reversible - does not exist anywhere in the world. Furthermore, Canada and Australia are examples of monetary unions with relatively low geographical labour mobility.

Although the working of the labour market has been particularly stressed in the debate on EMU, what matters for economic adjustment is, more generally, flexibility of both

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<sup>33</sup> Eichengreen (1993) points out that even geographical mobility within EU countries is much lower than mobility between US states. As shown by Decressin and Fatás (1995), while negative shocks spur labour mobility in the US, they lead in Europe to changes in activity rates.

<sup>34</sup> In addition, “excessive” labour mobility could make it more difficult to raise taxes for stabilisation purposes.

product and factor markets. More competitive product markets should also ensure that wage flexibility translates into price flexibility and that profit margins adjust in the event of shocks. Bayoumi and Thomas (1995) examine relative prices and economic adjustment in the EU and the US. They interpret their results as meaning that the lower integration of product and factor markets in the EU implies the need for a significant degree of relative price flexibility in the EU in order to adjust to economic disturbances. According to the authors, “much of this flexibility is currently provided by adjustable nominal exchange rates. The implication is that, without higher factor mobility, introduction of a common currency in the European Union could cause significant economic disruption by limiting the flexibility of relative prices.” (p.124). Bayoumi and Thomas acknowledge that the completion of the single market and EMU itself will promote the integration of product and factor markets in the Union, thereby reducing the need for large movements in relative prices. But integration is likely to take time.

### **Capital and credit markets**

Whereas the literature on monetary unions focuses primarily on government transfers and labour market flexibility as instruments of adjustment in the event of shocks, it has recently been pointed out that financial markets also play an important role. Financial markets can contribute via two different channels in smoothing shocks. First, in a monetary union, portfolios tend to contain assets from many regions of the union, thereby providing a cushion in the event of asymmetric shocks. Second, in a monetary union, economic agents are able to draw from a larger pool financial resources to smooth demand.

In Europe, more integrated capital and credit markets should greatly enhance the capacity of Member States to respond to shocks, as is presently the case for US states. Asdrubali et al. (1996) find that financial markets play a much larger role than the Federal government as channels of interstate risk sharing. Their study decomposes income and consumption smoothing into three components: federal transfers; adjustment via the cross-ownership of productive assets, facilitated by a developed capital market; and adjustment through lending and borrowing on national credit markets. The authors show that, over the period 1963-90, 39% of shocks to gross state product were smoothed by capital markets, 23% by credit markets and only 13% by the federal government. The remaining 25% were not smoothed.<sup>35</sup>

At the moment, European financial markets are still relatively fragmented, thereby reducing their capacity for inter-European risk sharing. The introduction of the euro will profoundly modify the financial landscape. As noted, *inter alia*, by McCauley and White (1997), the introduction of a single currency will greatly reinforce other catalysts for change in the financial sector, namely technological change and the Single

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<sup>35</sup> Sorensen and Yosha (1997) claim that “the EC may have to provide greater inter-regional insurance until capital markets are sufficiently integrated to carry out this role” (p. 107). However, with a budgetary position close to balance or in surplus, as envisaged by the Stability and Growth Pact, Member States should have sufficient room to resort to national automatic stabilisers.

Market Programme. The upshot will be the creation of a large and liquid single financial market. The euro will rapidly lead to the integration of the bond market. The resulting greater depth, breadth and liquidity of the euro bond market will greatly reduce the bias in the portfolios of institutional investors towards home-country assets. At the same time, the euro will raise the degree of competition in the credit market. By eliminating foreign exchange rate risk and converging interest rates, the single currency will increase the willingness of customers to look outside their domestic market for bank credit.

### C. MACRO-ECONOMIC POLICY ADJUSTMENT

The previous section analysed how markets need to adjust in response to economic disturbances. Assuming that (some) markets will continue to adjust slowly in EMU due to rigidities, there may be a role for macro-economic policy in dealing with such disturbances. Obviously, the desirability and type of macro-economic policy response will depend on the nature of shocks, in particular whether they are temporary or permanent, and whether they are symmetric or asymmetric. If they are temporary, macro-economic policy may be used in order to stabilise the level of economic activity. If shocks are permanent, they require structural adjustment rather than macro-economic policy. Nonetheless, since structural adjustment may be painful and disruptive, and therefore politically difficult to implement, macro-economic policy may have an accompanying part to play. This section therefore examines the objectives and instruments of macro-economic policy in the context of economic disturbances.

#### Policy assignment

As we have seen in Part I, in EMU, monetary policy will be centralised, whereas fiscal policy will remain decentralised between countries. This institutional dichotomy suggests a simple policy assignment rule for dealing with symmetric and asymmetric shocks: centralised monetary policy should be used to respond to symmetric shocks, while decentralised fiscal policy should be used in response to asymmetric shocks.

This general indication is subject to three qualifications:

- a) in the event of a symmetric shock, if the whole effect on economic activity is not fully offset by a monetary policy reaction, an “automatic” response of fiscal policy would occur in any case *via* the working of built-in stabilisers;
- b) although monetary policy will be aimed primarily at ensuring price stability, it may also be called to respond to country-specific shocks, to the extent that the latter affect economic activity “on average” in the EMU area. This is typically the case of a severe shock affecting a large EMU member. In such a case, the monetary stance is likely to be too loose for certain countries and too tight for others, thereby requiring offsetting moves (in opposite directions) in budgetary policies;

- c) governments wishing to engage in macro-economic policy management face a problem in identifying the nature of disturbances. As noted by Mélitz (1996, p. 14), “shocks do not come labelled as temporary or permanent.” Equally, they are not designated as symmetric or asymmetric. The implication is that policy authorities risk applying the wrong instrument. This problem is not specific to monetary unions, however.

### Monetary policy and the exchange rate

The primary objective of the ECB is price stability. Monetary policy can be used as an instrument for macro-economic adjustment provided that price stability is not jeopardised. Obviously, any shock leading to an acceleration of economic activity may increase inflationary pressure. Tightening of monetary policy will at the same time stabilise the economy and reduce inflationary pressures. A symmetric shock negatively affecting economic activity - such as a general decline in demand - may require a relaxation of monetary conditions. In this case, a union-wide monetary expansion would stimulate the economy of the union in the short term and help it reach a new equilibrium less painfully and more quickly, provided that inflation is not expected to accelerate. The impact of a monetary relaxation on long-term rates may serve as a yardstick for inflationary expectations: as long as markets believe prices will remain stable, long term rates will not rise.

An interesting result of the literature on central bank independence is relevant in the stabilisation debate. It has been shown that countries with a more independent central bank do not seem to suffer from a higher variability of growth and employment (Alesina and Summers, 1993). However, one would have expected that a conservative central banker *à la* Rogoff, by caring primarily about inflation, would be less willing to stabilise economic activity, thereby leading to a higher output variability. A possible explanation for the ‘free lunch independence’ result is that a more independent central bank may be more effective at stabilisation than less independent banks whose moves may be more readily interpreted as signalling the acceptance of higher inflation; as hinted above, another possibility is that an independent central bank would help lower the uncertainty about the future course of policy, thereby reducing policy-induced shocks and increasing *de facto* the stabilisation power of monetary policy<sup>36</sup>.

The sheer size of the euro area implies that any change in the stance of monetary policy will have a significant impact on the traded sectors in the countries outside the euro area, even though the traded sector of the euro area itself is relatively small. All other things being equal, an expansionary monetary policy in EMU could induce a depreciation of the euro and a gain in external competitiveness for the union at the expense of its foreign partners.<sup>37</sup> Consequently, the use of monetary policy in response to economic shocks might risk creating conflicts between the union and its foreign partners to the extent

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<sup>36</sup> The two explanations are put forward by Fischer (1995) and Alesina and Gatti (1995), respectively.

<sup>37</sup> The analysis of monetary conflict and co-ordination under flexible exchange rates in a game-theoretic framework was initiated by Hamada in the mid 1970s. See, for instance, Hamada (1976).

that the latter pursue similar objectives (e.g. in the event of a world-wide boom or recession).

### **Budgetary flexibility and co-ordination**

As pointed out in the section on policy assignment, in EMU national budgetary policy will have a more important role for macro-economic stabilisation across the economic cycle and in the event of asymmetric shocks. Budgetary policy needs to pursue a twofold aim: first, perform a shock-absorption function at the national level and, second, allow the establishment of an optimal budgetary stance at the EMU level. In order to meet the first objective, a degree of flexibility has to be left to national budgets. Meeting the second objective requires that the issue of budgetary policy co-ordination be addressed.

#### *Budgetary policy for macro-economic stabilisation*

Preserving the necessary flexibility to cope with adverse economic events requires a sound budgetary discipline under normal economic circumstances so as to prevent the emergence of unsustainable budgetary positions. The experience of EU-Member States shows that substantial budgetary imbalances have gradually frozen the use of budgetary policy as an anti-cyclical tool.<sup>38</sup>

An expansionary budgetary policy in a monetary union member would have a strong domestic effect because (compared to a situation of floating or managed exchange rates) the crowding-out of investment and exports, *via* the rise in interest rates and the appreciation of the euro, would be smaller. Symmetrically, a budgetary restriction in individual countries may be more effective in dampening excessive demand. Over time, two opposing effects are likely to emerge: the application of the Stability and Growth Pact, by leading to a progressive re-absorption of public debt, will create more space for stabilisation policies; on the other hand, if EMU leads to deeper trade integration, part of the positive effect of the budgetary boost will spill over to partner economies.

Achieving a medium-term budgetary position of close to balance or in surplus creates more room for automatic stabilisers to work. Should the latter be supplemented by discretionary budgetary policies?

While in case of particularly severe economic downturns, discretionary budgetary action cannot be ruled out, there is a widespread scepticism in the economics profession on the active use of budgetary policy for stabilisation purposes. Model uncertainty; risks of pro-cyclical behaviour due to cumbersome parliamentary approval and implementation; irreversibility problems caused by vested interests; supply side inefficiencies linked to excessive volatility of tax rates: all these arguments militate in favour of maintaining a stable medium-term oriented budgetary policy, thereby avoiding attempts to fine-tune the cycle through discretionary measures.

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<sup>38</sup> See Buti et al. (1997).

*The co-ordination of national budgetary policies*

As stated above, in EMU, monetary policy will be conducted by a centralised body, the ECB, while budgetary policy will remain decentralised between countries. This institutional arrangement has a bearing in the event of economic shocks requiring macro-economic stabilisation. This situation may call for (a) the co-ordination among national fiscal policies, as national governments may pursue inadequate budgetary policies due to externalities between member states;<sup>39</sup> and/or (b) the co-ordination between monetary and budgetary policy as the policy-mix may be inappropriate due to spillovers between monetary and budgetary policy.<sup>40</sup>

In principle, stabilisation of a region or a country affected by a shock may not require co-ordination, provided that EMU members allow their automatic stabilisers to operate and that no discretionary budgetary policy is envisaged.<sup>41</sup> This would provide more budgetary offset against asymmetric shocks than in the United States.<sup>42</sup>

If each Member State lets its stabilisers work, the system should have a substantial degree of built-in stabilisation against common shocks affecting the whole EMU. If automatic mechanisms were judged insufficient, the added stabilisation could be provided by supply-side adjustment and, to the extent that price stability is not endangered, by the ECB's monetary policy. This response will clearly be more efficient than decentralised monetary policies in the pre-EMU stage since the existence of the ECB will automatically solve the co-ordination problem among national central banks.

Whether or not, in the event of a particularly severe negative common shock, there might also be a need for budgetary expansion beyond automatic stabilisation is an open question. If a discretionary "budgetary supplement" were called for, each member country might refrain from taking the initiative, hoping to free ride on other countries' stabilisation. This wait-and-see attitude might be compounded by the fear that moving alone could bring forward the threat of sanctions under the Stability and Growth Pact arrangement. Policy co-ordination leading to a simultaneous budgetary expansion may, at least theoretically, be useful in this case if all the arguments against budgetary fine-tuning could be overcome.<sup>43</sup> Clearly, if such expansion were to happen, it would need to take into account the ECB's policy so as to avoid negative feedback effects which could lead to an over-restrictive monetary stance. Finally, regardless of whether budgetary policy were applied, the use of monetary policy for stabilisation purposes could need to be co-ordinated with foreign partners (in particular within the G-7) to avoid the potential 'beggar-thy-neighbour' problems referred to above.

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<sup>39</sup> See Lamfalussy (1989).

<sup>40</sup> Under certain conditions, coordination of structural policies, including tax policies, may also be helpful.

<sup>41</sup> Some member states may not agree to let automatic stabilisers operate fully ex ante. In such event, co-ordination may be required.

<sup>42</sup> Pisani-Ferry et al. (1993) find that the federal tax and transfer system in the United States absorbs only about 17% of a regional shock compared to well over 30% in France and in Germany.

<sup>43</sup> The need for budgetary co-ordination in the case of severe symmetric shocks is stressed by Allsop and Vines (1996).

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