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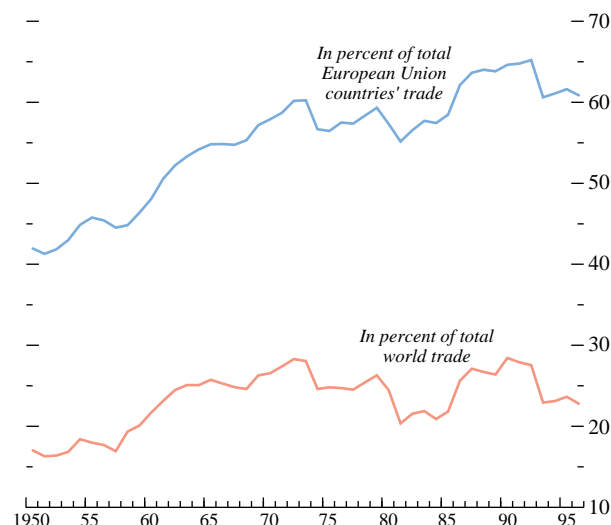
EMU and the World Economy

The advent of European Economic and Monetary Union (EMU) scheduled for the beginning of 1999 will constitute a major change in the international monetary system. Involving as it will the replacement of the national currencies of a number of highly developed economies of substantial size by a single common currency, EMU will in fact have no parallel in history. But while EMU will be a major change, it will not be a sudden change. When the leaders of EU countries decide in May 1998 which countries will participate in EMU from its outset, they will be putting some of the final touches to the scene set for the third and final stage of EMU, following the design laid out in the Treaty on European Union, agreed by EU governments at Maastricht in December 1991. More fundamentally, the achievement of EMU will reflect over 40 years of progress in strengthening economic, monetary, and political ties within Europe.

The Treaty of Rome of 1957, which founded the European Economic Community, identified the exchange rates of member states as a matter of common concern. Five years later, in 1962, the Commission of the European Communities set out a plan for monetary union. The Werner Report of 1970, endorsed by leaders of the European Communities in March 1971, envisaged monetary union within a decade, but the plan foundered with the collapse of the Bretton Woods exchange rate system of fixed but adjustable parities. Monetary integration was revitalized by the establishment of the European Monetary System (EMS) in 1979, with an exchange rate mechanism (ERM) at its core that was aimed at providing a zone of monetary stability in Europe. With the launch in the mid-1980s of the program to complete the EU's internal market, attention refocused on the objective of a single currency as part of the framework that would enhance the functioning of an increasingly integrated market (Figure 19).²⁹ The greater stability of exchange rates within the ERM seemed to confirm that this was also a feasible goal. The reaffirmation by the European Council in June 1988 of the EU's commitment to EMU and the Delors Committee Report of 1989 then set in train the three-stage process leading to EMU laid out in the Maastricht Treaty.

Figure 19. Trade Within the European Union¹

Since the early postwar period, intra-European Union trade has risen to more than 60 percent from about 40 percent of total European Union countries' trade.



¹Imports plus exports of goods.

²⁹The increasing economic integration of Europe was discussed in the October 1994 *World Economic Outlook*, Annex I, pp. 98–103.

The first stage, the initial preparations, began in July 1990 and saw the abolition by all EU countries of remaining restrictions on international capital movements. Stage 2 commenced on January 1, 1994, at which point the European Monetary Institute (EMI)—the forerunner of the European Central Bank (ECB)—came into being, monetary financing of budgetary deficits and privileged access of the public sector to financial institutions were prohibited, and procedures for the surveillance of economic policies by EU institutions were strengthened. At the beginning of Stage 3, exchange rates of participating countries will be irrevocably locked, a common currency, the euro, will be introduced, and the ECB will take over responsibility for monetary policy. At the December 1995 meeting of the European Council in Madrid, it was agreed that Stage 3 would begin on January 1, 1999, though the possibility of determining an earlier date had been envisaged by the drafters of the treaty.³⁰ The 1992–93 crises in the ERM had threatened to derail the process, while the prolonged period of economic weakness that ensued impeded efforts to meet the criteria for qualification for EMU set out in the treaty, particularly in the fiscal area. These problems made it difficult to begin Stage 3 before 1999.

This chapter addresses a number of questions raised by the prospect of EMU. First, what is the nature of the change in policy regime that EMU will entail for the participating countries: how will monetary and fiscal policies be conducted in the euro area, and how will participating economies adjust to diverse developments in the absence of exchange rate flexibility and domestic monetary policy? Second, to what extent have prospective participants established the conditions needed for EMU to function successfully, and what more do they need to do? Third, what are the possible pitfalls in the path to a smooth transition? Fourth, how will EMU affect the rest of the world? And fifth, how critical are fiscal and labor market reforms for the success of EMU?

EMU: A New Policy Regime

Monetary and Exchange Rate Policy

EMU will represent a change in the monetary policy regime in Europe in two key respects. First, the scope for national monetary policies, which countries have retained in the ERM, albeit constrained by the central objective of exchange rate stability, will disappear. And second, there will be a shift in the geographic orientation of monetary policy. In the ERM, the anchor

role of the deutsche mark has meant that the policy of the Deutsche Bundesbank, which has aimed at price stability in Germany and which has been set primarily on the basis of domestic considerations, has had a dominant influence on the stance of monetary policy in the system as a whole. By contrast, policy in EMU will in principle be attuned to conditions throughout the euro area.

The design and implementation of monetary policy in the euro area will be the exclusive preserve of the European System of Central Banks (ESCB), comprising the ECB and the national central banks (NCBs). The ECB will come into being soon after the decision is taken on which countries will participate in Stage 3, and the EMI, which has prepared the technical groundwork for conducting monetary policy in the euro area, will then be dissolved. The Maastricht Treaty states that the primary objective of the ESCB shall be to maintain price stability, which official statements suggest means inflation in the range of 0–2 percent a year.³¹ Without prejudice to that objective, the ESCB shall also support the general economic policies in the EU, with a view to contributing to such objectives as sustainable growth, high employment, a high degree of convergence of economic performance, and economic cohesion and solidarity among member states.³² Monetary policy decisions will be made by the ECB's Governing Council, made up of its president, vice president, the other members of its Executive Board (who may number up to four), all appointed by the heads of state or government of the countries in the euro area, and the governors of the NCBs. The Executive Board will implement monetary policy in accordance with the guidelines and decisions of the Governing Council and give the necessary instructions to the NCBs. The Executive Board may have certain powers delegated to it where the Governing Council so decides.

Among the issues that have arisen concerning the operation of monetary policy in EMU, three are particularly notable in the context of the change in monetary policy regime: the independence and accountability of the ESCB; the strategy and intermedi-

³¹Thus, the EMI has observed that "While theory does not provide a precise definition of price stability and while measurement problems exist, there has been a broad consensus among central banks for several years that a range of 0–2 percent inflation per annum would be appropriate." See *The Single Monetary Policy in Stage Three: Elements of the Monetary Policy Strategy of the ESCB* (Frankfurt: European Monetary Institute, February 1997), p. 12.

³²The precedence given to the objective of price stability in the mandate of the ESCB is similar to that in the charter of the Bundesbank. It may be contrasted with the statutory objectives of the U.S. Federal Reserve, which is charged by the Full Employment and Balanced Growth Act of 1978 (U.S. Code, Title 12, Chapter 3, Subchapter I, paragraph 225a) "to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates"—a mandate that places high employment on a similar footing to price stability.

³⁰The treaty provides that "If by the end of 1997 the date for the beginning of the third stage has not been set, the third stage shall start on 1 January 1999" (Maastricht Treaty, Article 109j (4)).

ate targets to be used by the ECB in pursuit of its objectives; and differences among member countries in the way the single monetary policy may affect the economy.

The ESCB will be vested with a high degree of *independence*, which may be expected to help it pursue the objective of maintaining price stability.³³ The tenure of members of the Executive Board of the ECB—eight-year nonrenewable terms—is designed to insulate them from political pressure, and the governors of the NCBs must have terms of at least five years.³⁴ The Maastricht Treaty also precludes member governments from attempting to influence ECB decisions, and members of the ECB’s decision-making bodies from seeking or taking instructions from governments or EU institutions. Additional features that will help insulate the ESCB from political influence are treaty provisions that prohibit the ESCB from financing either governments or EU institutions or from assuming their commitments. Moreover, changes to the key provisions of the Statute of the ESCB must be ratified by all EU countries.³⁵ Although there are a number of procedures for channeling the views of the Council,³⁶ the Commission, and the European Parliament to the ECB, there is no obligation on the ECB to act on these views.

One concern about the ESCB’s independence has been that it could be limited by the Council’s right to enter into formal agreements relating to exchange rate arrangements for the euro *vis-à-vis* non-EU currencies or to formulate “general orientations” for its exchange rate. While this opens up the possibility that the ECB might have to take measures jeopardizing its own objectives, action by the Council to enter into formal agreements would require unanimity, would have to be on a recommendation from the Commission or the ECB, and in the case of the former would be after consultation with the ECB “in an endeavor to reach a consensus consistent with the objective of price stability.” Moreover, the ECB will not be obliged to follow any “general orientations” for the exchange rate specified by the Council if it believes them incompatible with achieving price stability. The

Council and the Commission, in cooperation with the EMI, have been requested by the European Council (i.e., the heads of state or government of EU member countries), at its meeting in Amsterdam in June 1997, to study effective ways of implementing all provisions of the treaty relating to possible exchange rate arrangements for the euro, and to report to its meeting in Luxembourg in December 1997.

A formal exchange rate arrangement already agreed within the EU is “ERM2,” by which EU countries outside the euro area that wish to participate in a new exchange rate mechanism will have central rates for their currencies expressed in euro, with 15 percent fluctuation bands on either side as in the current ERM.³⁷ This arrangement provides explicit protection for the ECB’s monetary policy independence in that it will be party to the agreement on central rates and in that it can suspend its intervention and financing obligations if it believes that these threaten the integrity of its monetary policy. The ECB (along with the other parties to the arrangement) will also have the right to initiate the procedure for considering currency realignments.

The independence of the ESCB therefore seems well safeguarded. In fact, more questions have been raised about the adequacy of its accountability to the public and parliamentary representatives. The long-run success of the ESCB in delivering low inflation will to some extent, as with any monetary authority, depend on the public’s support for that objective. In this context, mechanisms to ensure public understanding of the ESCB’s policy decisions, in addition to those set out in the treaty (which relate to the ECB’s Annual Report and presentations to the European Parliament and its committees) would be likely to enhance its ability to pursue the requisite policies. This issue is related to that of the appropriate monetary policy strategy.

While the ECB will make the final decision on which particular *monetary policy strategy* is best suited for achieving the objective of price stability, preparatory work done by the EMI has narrowed the options. Thus, the EMI has ruled out exchange rate targeting as a viable nominal anchor for monetary policy in the euro area. This seems appropriate in view of the much smaller importance of international trade for the euro area as a whole than for individual EU countries, and hence of the exchange rate as an influence on domestic inflation. The euro area will in this respect resemble the relatively closed economies of Japan and the United States, where monetary policy decisions are based primarily on domestic considerations (Figure 20). For most countries participating in EMU, this will require a significant change in the way monetary policy is

³³Evidence on the relationship between central bank independence and inflation is discussed in the October 1996 *World Economic Outlook*, Box 11, pp. 128–29.

³⁴When the ECB is established, the terms of the initial appointees to the Executive Board will range from four to eight years, so as to stagger subsequent appointments.

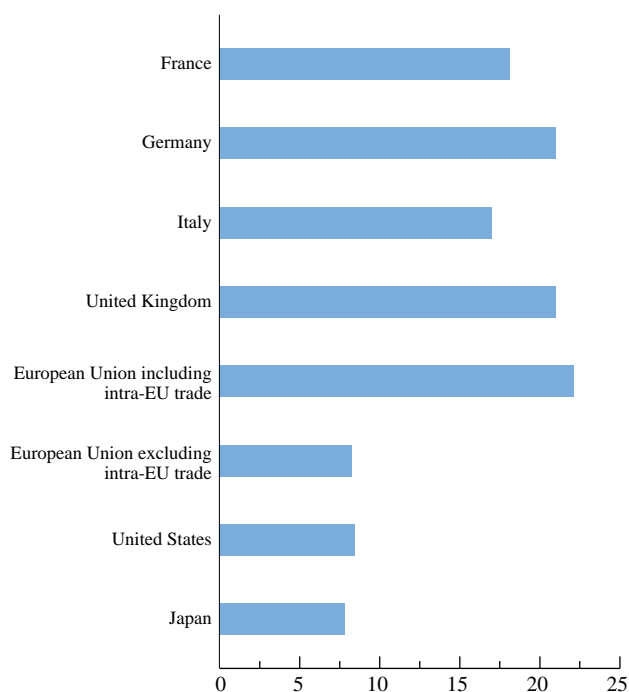
³⁵In this respect, the ESCB will be more independent than either the Bundesbank or the U.S. Federal Reserve, legislation governing which can be altered by the respective national legislatures.

³⁶In this chapter “the Council” refers to the Council of the European Union, also known as the Council of Ministers, which represents all member governments and is the principal decision-making body of the EU. In Stage 3, for matters relating to the euro area only, the voting rights of member states outside the euro area will be suspended.

³⁷There is provision for individual countries to negotiate a narrower band *vis-à-vis* the euro.

**Figure 20. Selected Advanced Economies:
Openness¹**
(In percent of GDP)

The openness to trade of the European Union (EU) as a whole is markedly less than that of its member countries, and comparable with that of the United States and Japan.



¹Half the sum of exports and imports of goods and services.

viewed, since in the ERM it has focused, except in Germany, on exchange rate objectives. On the other hand, given that the ERM currencies have been floating collectively against other currencies, the magnitude of the regime shift for the euro area as a whole will in effect be smaller than may appear.

Two options—targeting inflation and targeting a monetary aggregate—have been left open, and the EMI has made arrangements to ensure that the technical infrastructure is in place to conduct monetary policy on the basis of either of these frameworks.³⁸

Having a monetary aggregate as an intermediate target might in principle provide an objectively measurable means whereby the appropriateness of monetary policy, and effects of the ECB's actions, could be monitored by the monetary authority and the public on a timely basis. With an inflation target, by contrast, there is a substantial lag before the actual effects of policy on the targeted variable can be seen; in the meantime, assessments would depend on inflation forecasts whose reliability may be questioned, especially until a track record is established. A monetary target would also provide the ECB with the advantage of continuity with the framework used by the dominant central bank of the ERM, the Bundesbank, and it might thereby facilitate the transfer of credibility. However, monetary targeting is the exception rather than the rule among the central banks of advanced economies. In the United States and most other advanced economies, the stability of demand-for-money relationships that is needed for successful monetary targeting has been questioned since such targeting began in the mid-1970s, and in most countries the rapid pace of financial innovation subsequently has led to the conclusion that monetary aggregates cannot on their own provide an adequate guide for monetary policy. Even in Germany there appears to be less empirical basis for anchoring policy to a money target now than in the past.³⁹

³⁸The main operating instrument of the ESCB will be a short-term interest rate, and open market operations are expected to be conducted through repurchase agreements. The NCBs will play an important role in implementing open market operations. The ESCB will also have standing facilities—a lending and a deposit rate—and reserve requirements are also expected to figure among the set of instruments available to the ESCB. See *The Single Monetary Policy in Stage Three: Specification of the Operational Framework* (Frankfurt: European Monetary Institute, January 1997).

³⁹See J. Von Hagen, "Inflation and Monetary Targeting in Germany," in *Inflation Targets*, ed. by Leonardo Leiderman and Lars E.O. Svensson (London: Centre for Economic Policy Research, 1995), pp. 107–121; and Richard Clarida and Mark Gertler, "How the Bundesbank Conducts Monetary Policy," NBER Working Paper No. 5581 (Cambridge, Massachusetts: National Bureau of Economic Research, May 1996), for discussion of the stability of demand for money relationships in Germany. Benjamin M. Friedman, "The Rise and Fall of Money Growth Targets as Guidelines for U.S. Monetary Policy," NBER Working Paper No. 5465 (Cambridge, Massachusetts: National Bureau of Economic Research, February 1996), discusses the experience with monetary targets in the United States.

Indeed, the emphasis placed on monetary aggregates by the Bundesbank should not be exaggerated. The Bundesbank normally interprets developments in monetary aggregates in light of a variety of other indicators, and in fact it has missed its monetary target about half the time over the past twenty years, relying on its inflation performance above all else to sustain its credibility.

While some recent studies have found evidence that relationships linking monetary aggregates to economic activity and inflation are more stable and predictable when money is aggregated across EU countries, the significant restructuring of financial markets that will accompany the introduction of the euro, and the likely initial instability of demand for the new currency itself, seem almost bound to make such relationships unreliable, at least for a number of years.⁴⁰

Apart from concerns relating to the stability of the demand for money, the case for inflation targeting is strengthened by the recent experience of a number of countries that have targeted inflation with some success after abandoning their exchange rate and monetary anchors. A significant challenge for the ECB in adopting an inflation targeting framework would be in dealing with credibility problems that could arise in the initial stages of EMU, given the lags between policy action and the inflation outcome. Moreover, the regime shift is likely to increase, at least for a time, uncertainties about methods of forecasting inflation and of predicting the effects on inflation of changes in the settings of monetary policy instruments—methods that are essential to the implementation of a fully specified inflation targeting strategy.

As a practical matter, therefore, it seems unlikely that the ECB will be in a position to rely solely on a pure, fully specified framework, whether monetary targeting or inflation targeting, when EMU begins.⁴¹ It

is likely to have to use a high degree of discretion in its conduct of monetary policy, including by monitoring a variety of indicators, in which monetary aggregates would be likely to play a significant role, but which would also include indicators of movements in prices, wages, economic activity, the exchange value of the euro, and developments in asset markets generally. This would not be unusual; in fact, it is how most central banks, including the Bundesbank, operate.⁴² The present subdued inflation in the EU area should prove helpful in allowing the ECB to pursue such a monetary policy while building its reputation. It will, however, be important for the ECB to make its decisions transparent, as it seeks to establish its credibility fully: for instance, it could publish inflation reports that would be forward looking, but which would also contain explanations of why the ECB took the decisions it did, and why its assessment of the required monetary stance may have changed from one period to another.⁴³

Another issue regarding the prospects for successful operation of a common monetary policy in EMU is the extent to which there will be differences among countries in how changes in monetary policy are transmitted to the real economy. This *transmission mechanism* may vary because of institutional differences or differences in the process of financial intermediation—for instance, differences in the relative importance of floating-interest-rate versus fixed-rate debt instruments, in the importance of bank lending relative to other forms of financing, and in household norms regarding indebtedness.⁴⁴ Consequently, output and inflation in some countries could be more sensitive to changes in short-term interest rates than in others. The evidence indicates that there have been differences in the response of activity to monetary policy across the EU countries, but that they are not as significant as to suggest that substantial problems would arise in the operation of a common monetary

⁴⁰The greater stability of money demand relationships when aggregated across EU countries appears to be related to the internalization of currency substitution shocks to which individual countries in the EU have been subject as part of the process of deepening European integration. For a more detailed discussion of this issue, see Carlo Monticelli and Luca Papi, *European Integration, Monetary Coordination, and the Demand for Money* (Oxford: Clarendon Press, 1996). See also Marcel Cassard, Timothy D. Lane, and Paul R. Masson, "Core ERM Money Demand and Effects on Inflation," *Manchester School of Economic and Social Studies*, Vol. 65 (January 1997), pp. 1–24; and Ramana Ramaswamy, "Monetary Frameworks: Is There a Preferred Option for the European Central Bank?" IMF Paper on Policy Analysis and Assessment 97/6 (June 1997).

⁴¹Monetary targeting and inflation targeting, although different monetary policy strategies, share common ground. Indeed the EMI and others have argued that in practice the similarities are greater than the differences. Both serve the same objective, and both are forward looking. Furthermore, monetary targets are based partly on assumptions or objectives for inflation, while monitoring monetary aggregates provides important information in the implementation of inflation targets.

⁴²See October 1996 *World Economic Outlook*, Chapter III. Von Hagen, "Inflation and Monetary Targeting in Germany"; Clarida and Gertler, "How the Bundesbank Conducts Monetary Policy"; and Ben S. Bernanke and I. Mihov, "What Does the Bundesbank Target?" *European Economic Review*, Vol. 41 (June 1997), pp. 1025–53, all argue that the Bundesbank has in practice followed a monetary policy rule similar to the Taylor rule, whereby adjustment in interest rates depends on the output gap and deviations of inflation from its target rate.

⁴³David Begg, "The Design of EMU," IMF Working Paper 97/99 (August 1997), discusses how a central bank's credibility evolves through interaction between the legal provisions for its independence and the success of its policy actions in building its reputation.

⁴⁴For instance, the United Kingdom has a high proportion of adjustable-rate mortgage loans, while France has a high proportion of fixed-rate loans. See Claudio E.V. Borio, "The Structure of Credit to the Nongovernment Sector and the Transmission Mechanism of Monetary Policy: A Cross-Country Comparison," BIS Working Paper No. 24 (Basle: Bank for International Settlements, 1995), for a discussion of differences in credit markets in the EU.

policy.⁴⁵ Furthermore, the operation of the common monetary policy and the creation of a single financial market may be expected over time to lead to greater harmonization in the transmission mechanism in the euro area. Thus, any problems relating to differences in the transmission mechanism are most likely to be transitory.

Nevertheless, differences in the transmission mechanism are likely to add to the challenges facing the ESCB in its early years, as it conducts monetary policy in the face of what may be a particularly unstable demand for money and an uncertain inflation forecasting methodology, as it learns to take policy decisions effectively and in a timely way as a multinational central bank, and as it seeks to establish its credibility fully.

Fiscal Policy

Unlike most monetary unions, the euro area will not have a central fiscal authority. There is a budget for the EU as a whole, but it is relatively small. Spending amounts to only a little over 1 percent of GDP, devoted mostly to the common agricultural policy and the structural funds, and deficit financing is prohibited. In view of the principle of subsidiarity⁴⁶ and the fact that the EU is not likely in the foreseeable future to evolve into a federation, the EU budget can be expected to remain relatively small, and there is little reason to expect it to become a significant instrument of macroeconomic policy. Thus, budgetary decisions in the euro area will remain almost exclusively the province of member states, albeit subject to surveillance by the Union as a whole in the context of the requirements set out in the Maastricht Treaty and subsequent agreements.

⁴⁵Fernando Barran, Virginie Coudert, and Benoit Mojon, "The Transmission of Monetary Policy in the European Countries," CEPII Working Paper No. 96-03 (Paris: Centres d'études prospectives et d'information internationales, February 1996), find that the standard effects of monetary policy have been operative in most EU countries and that the impact of monetary policy on GDP has also been fairly similar in terms of lags, though not in magnitude. Erik Britton and John Whitley, "Comparing the Monetary Transmission Mechanism in France, Germany, and the United Kingdom: Some Issues and Results," *Quarterly Bulletin*, Bank of England, Vol. 27 (May 1997), pp. 152–62, obtain results suggesting no marked difference between the three economies in the response of output or inflation, but also refer to these results as inconclusive. Using a larger set of EU countries, Ramana Ramaswamy and Torsten Sloek, "The Monetary Transmission Mechanism in Europe: How Important Are the Differences?" IMF Working Paper (forthcoming), find that while the impact of monetary shocks on GDP differs somewhat across EU countries, the differences do not seem very large. They find that EU countries fall broadly into two groups, in one of which (Austria, Belgium, Finland, Germany, the Netherlands, and the United Kingdom) activity responds relatively slowly but ultimately by more than in the other group (Denmark, France, Italy, Portugal, Spain, and Sweden).

⁴⁶According to the principle of subsidiarity established in the Maastricht Treaty (Article 3b), a government function should be assigned to the community "only if . . . the objective of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of scale or effects of the proposed action, be better achieved by the community."

The key fiscal concern of the Maastricht framework was to avoid excessive budgetary imbalances. Most EU members suffered from chronic fiscal problems, as indicated by rising government debt ratios, public sectors of unprecedented size, and heavy and growing tax burdens. Most countries also faced the prospect of worsening budgetary positions in the medium to long term as a result of demographic developments. Moreover, there was increasing awareness of the negative effects of fiscal imbalances on medium-term growth, including through higher real interest rates. It was widely understood that these problems needed to be tackled anyway, irrespective of the EMU project. It was also viewed as particularly important for the success of EMU to avoid negative spillovers from the fiscal policies of individual states to other members, which might weaken the credibility of the anti-inflationary thrust of the common monetary policy. In particular, there were concerns both that excessive national debts could, in EMU, produce pressure for undue relaxation of monetary policy, and perhaps even for a bailout of an overindebted government, and that large deficits would result in a strained policy mix and complicate the task of monetary policymakers.

One option would have been to leave it solely to financial markets to discourage imprudent fiscal policies by penalizing with larger borrowing spreads governments that followed such policies. But this was not seen to be a sufficiently reliable solution. While there is empirical evidence that risk premiums increase with debt levels, it is questionable in many cases whether they have risen quickly enough to act as a deterrent; and clearly, in Europe, substantial premiums have not in practice discouraged some governments from building considerable indebtedness, albeit in a context where monetization and exchange rate depreciation remained a possibility.

To address these concerns, the treaty introduced the excessive deficit exercise, an annual examination of fiscal positions whereby a country is deemed to be in excessive deficit if it violates either of two criteria relating to the deficit and debt of the general government. These criteria provide reference values for the general government deficit of 3 percent of GDP and for general government gross debt of 60 percent of GDP, to be used in judging whether there is sufficient fiscal discipline. There is some scope for allowing performance that is in breach of these reference values, notably where the deficit is elevated owing to exceptional and temporary circumstances or the debt is declining at a sufficiently fast pace (see note to Table 11).⁴⁷ The cri-

⁴⁷In the most recent application of the excessive deficit exercise, Denmark, Ireland, and the Netherlands each passed the examination despite having debt levels in excess of the reference value, as their debt ratios were judged to be falling sufficiently quickly. The other two countries that passed, Finland and Luxembourg, complied with the reference values for both the deficit and debt, although revised figures for Finland published more recently show the deficit as

Table 11. European Union: Convergence Indicators for 1996, 1997, and 1998

(In percent)

	Consumer Price Inflation			General Government Balance/GDP				Gross Government Debt/GDP ²			Long-Term Interest Rates ³
	1996	1997	1998	1996	1997	1997 ¹	1998	1996	1997	1998	August 1997
Germany	1.5	1.9	2.3	-3.6	-3.1	-3.0	-2.9	60.7	62.2	62.7	5.7
France	2.0	1.1	1.3	-4.1	-3.2	-3.0	-3.2	55.4	57.7	59.2	5.6
Italy	3.9	1.8	2.1	-6.7	-3.2	-3.0	-3.0	123.8	122.9	121.2	6.6
United Kingdom ⁴	2.9	2.6	2.7	-4.7	-2.0	...	-0.6	53.8	54.5	52.4	7.1
Spain	3.5	2.0	2.2	-4.4	-3.0	-3.0	-2.6	69.8	69.0	68.2	6.2
Netherlands	2.1	2.3	2.3	-2.3	-2.1	...	-1.8	78.0	73.6	71.2	5.5
Belgium	2.1	1.6	1.9	-3.2	-2.8	-2.9	-2.6	127.4	125.1	122.8	5.7
Sweden	0.8	1.0	2.0	-2.5	-2.1	-2.1	—	77.7	77.1	73.9	6.5
Austria	1.9	1.5	1.6	-3.9	-2.5	-3.0	-2.5	70.0	68.0	67.6	5.7
Denmark	2.2	2.5	2.6	-1.4	0.5	0.7	0.5	69.9	66.4	63.2	6.2
Finland	0.6	1.3	2.3	-3.1	-1.9	-1.4	-0.4	58.8	59.4	57.9	5.8
Greece ⁵	8.2	5.7	4.7	-7.4	-4.7	-4.2	-4.1	111.8	108.0	104.2	9.6
Portugal	3.1	2.2	2.3	-4.0	-2.9	-2.9	-2.9	66.0	62.9	61.7	6.3
Ireland	1.6	1.7	2.1	-0.9	-0.8	-1.5	-0.8	72.8	67.5	65.0	6.3
Luxembourg	1.8	2.0	2.0	-0.1	-0.1	...	-0.1	5.9	5.7	5.5	6.0
All EU ⁶	2.5	1.9	2.2	-4.3	-2.8	...	-2.3	73.9	74.0	73.2	6.2
Reference value⁷	2.5	2.6	3.1	-3.0	-3.0	...	-3.0	60.0	60.0	60.0	8.0

Sources: National sources; and IMF staff projections.

Note: The table shows IMF staff estimates of the convergence criteria mentioned in the Maastricht Treaty, except for the exchange rate. The data and projections shown for consumer price inflation are based on national statistics rather than on the harmonized consumer price indices being constructed by Eurostat that will be used in applying the Maastricht criteria. The three relevant convergence criteria are (1) consumer price inflation must not exceed that of the three best performing countries by more than 1½ percentage points; (2) interest rates on long-term government securities must not be more than 2 points higher than those in the same three member states; and (3) the financial position must be sustainable. In particular, the general government deficit should be at or below the reference value of 3 percent of GDP. If not, it should have declined substantially and continuously and reached a level close to the reference value, or the excess over the reference value should be temporary and exceptional. The gross debt of general government should be at or below 60 percent of GDP or, if not, the debt ratio should be sufficiently diminishing and approaching the 60 percent value at a satisfactory pace. The exchange rate criterion is that the currency must have been held without severe tensions within the normal fluctuation margins of the ERM for at least two years, in particular without a devaluation at the initiative of the member state in question.

¹Official targets or intentions. The IMF staff's fiscal projections shown in the preceding column are in some cases based on different growth, inflation, or interest rate assumptions from those used by national authorities and do not take into account further consolidation measures that are planned by EU governments in accordance with their convergence programs but which have not yet been announced. See Box 1 for the IMF staff's fiscal assumptions.

²Debt data refer to end of year. They relate to general government but may not be consistent with the definition agreed at Maastricht. For the United Kingdom, general government consolidated debt evaluated at the end of March.

³Ten-year government bond yield or nearest maturity.

⁴Retail price index excluding mortgage interest.

⁵Long-term interest rate is 12-month treasury bill rate.

⁶Average weighted by GDP shares, based on the purchasing-power-parity (PPP) valuation of country GDPs for consumer price index, general government balances, and debt.

⁷The treaty is not specific as to what methodology should be used to calculate reference values for inflation and the interest rate beyond noting that they should be based on the three lowest inflation countries or a subset of them. For illustrative purposes, a simple average for the three countries is used in calculating the reference values. The reference value for long-term interest rates in August 1997 is based on yields in the three countries with the lowest projected inflation rates for 1997 as a whole.

teria that the treaty provides for the assessment of a country's readiness to participate in monetary union include that it not have an excessive deficit. The treaty also requires that, once monetary union commences, participating countries avoid excessive deficits or be subject, potentially, to financial sanctions.

having exceeded its reference value slightly in 1996. There has been no case to date where an exemption has been given for a deviation, known at the time of the exercise, from the deficit reference value. The Stability and Growth Pact makes more specific the exceptional grounds on which such a deviation might be justified.

At the June 1997 meeting in Amsterdam of the European Council, the EU member states concluded their negotiation of a Stability and Growth Pact, which makes more precise how surveillance of fiscal positions will be carried out in Stage 3 (see Box 3). It sets a specific time frame for the various steps of the excessive deficit procedure, introduces clearer guidance as to when a deficit larger than 3 percent of GDP might not be considered excessive because of exceptional and temporary circumstances, and establishes presumptions as to when financial sanctions would be imposed and what the size of those sanctions would

Box 3. The European Union's Stability and Growth Pact

The Stability and Growth Pact clarifies how the surveillance of national fiscal policies will be carried out in Stage 3 of EMU, pursuant to the requirements of the Maastricht Treaty.¹ The treaty pays particular attention to the avoidance of "excessive deficits" and allows for the imposition of financial sanctions in Stage 3 when a country found to have an excessive deficit does not respond adequately to the advice of the Council of Ministers. But the treaty leaves some key questions open: What is meant by the exceptional and temporary circumstances in which the general government deficit can exceed 3 percent of GDP without being judged excessive? What time frame is envisaged for the various steps in the excessive deficit procedure? And in what circumstances would financial sanctions be invoked and what would be their size? By addressing these questions, the Stability and Growth Pact gives greater precision to how the excessive deficit procedure will operate in the euro area. At the same time, the pact strengthens the Council's surveillance of medium-term fiscal policies with a view to avoiding excessive deficits, and focuses this surveillance on the need for medium-term fiscal positions to be close to balance or in surplus.

Operation of the Excessive Deficit Procedure in Light of the Pact

A general government deficit in excess of 3 percent of GDP will be considered exceptional and temporary if it results from an unusual event outside the control of the member state in question or from a severe economic downturn, provided also that, should the unusual event or severe downturn have passed, Commission projections for the following year envisage the deficit falling back to 3 percent or less. To avoid an excessive deficit finding, the deficit would also have to remain *close* to the reference value. A decline in GDP of 2 percent in the year in question would as a rule be regarded as a severe downturn. The pact allows member states to argue that a smaller output decline was exceptional, on the basis of evidence such as the abruptness of the downturn or the cumulative loss of output relative to past trends. Countries have agreed not to claim exceptional circumstances for annual output declines of less than $\frac{3}{4}$ of 1 percent.

The excessive deficit exercise normally commences with the national authorities submitting by the beginning of March each year data on the prior year's fiscal outcome.² The Council would hand down any excessive deficit findings, together with its advice, by the end of

May and would impose financial sanctions by the end of the year on countries judged not to have responded adequately to its advice (or subsequently on countries that failed to follow through on their initial response). To avoid sanctions, a country would normally be expected to bring the deficit down to 3 percent of GDP or less in the year following that in which an excessive deficit was identified. However, the pact allows the Council to set a longer adjustment period if there are *special* circumstances (which are not defined in the pact). Sanctions would initially take the form of nonremunerated deposits, amounting to between 0.2 percent and 0.5 percent of GDP, depending on the size of the deficit. The deposit would be returned if the excessive deficit was corrected within two years; otherwise it would be converted into a fine. Additional deposits (also subject to conversion into fines) may be required each year following the initial deposit until the excessive deficit is corrected.

Strengthened Surveillance of Fiscal Positions

Under the pact, each country will aim for a medium-term fiscal position that is close to balance or in surplus so as to allow an adequate safety margin to avoid excessive deficits in the face of normal cyclical fluctuations. Countries will submit *stability programs* annually specifying how their medium-term fiscal goals will be realized. The Council will examine the initial programs and may choose to review the later submissions. It will provide advice where a program is judged inadequate, and program implementation will be monitored in the regular multilateral surveillance exercises. This should normally provide countries with an early warning from the Council if there is risk of an excessive deficit.

Implications for the Management of Fiscal Policy

While the pact reinforces the framework for fiscal discipline, a question arises as to how it might constrain countercyclical fiscal policy. A number of factors, in addition to any exercise of discretionary fiscal policy, are relevant to this, including the sensitivity of the fiscal position to the cycle; the underlying stance of fiscal policy; and the size and duration of cyclical fluctuations in the economy and the budget.

Estimates by IMF staff indicate that, on average in the EU, a 1 percent shortfall in output from potential worsens the fiscal balance by 0.6 percent of GDP, with most of this effect occurring in the year of the shortfall. For some countries, the impact of the cycle is larger; in Denmark, the Netherlands, Sweden, and the United Kingdom, the response parameter of the fiscal balance to GDP fluctuations is on the order of $\frac{3}{4}$ or higher. Where government finances are in structural balance and the cyclical response parameter is of average size, the operation of automatic stabilizers would accommodate an output gap of 5 percent without the deficit exceeding 3 percent of GDP. In a country with a response parameter of $\frac{3}{4}$, an underly-

¹The pact consists of two European Council Regulations—one on the excessive deficit procedure and the other on surveillance—which have the force of law, and a European Council Resolution, which gives guidance to the Commission, the Council, and member states in applying the pact.

²The exercise can also address planned breaches of the reference values.

ing surplus of about 1 percent of GDP would be needed to provide the same buffer.

Estimating the extent to which cyclical fluctuations alone might in the past have caused breaches in the Maastricht reference value, even with underlying fiscal balance, is complicated by uncertainty in the estimation of output gaps. A European Commission study found only three countries for which the largest cyclical deficit had exceeded 3 percent of GDP over 1961–96 (by a significant margin in Finland and Sweden, with a minor excess in Luxembourg).³ The authors noted that their methodology tended to yield smaller estimates of output gaps than that used by the IMF or the Organization for Economic Cooperation and Development (OECD). Another study, using World Economic Outlook data for 12 EU countries from the late 1970s to 1995, estimated that for most countries the standard deviation of the cyclical deficit was less than 2 percent of GDP.⁴ However, the largest cyclical deficit exceeded 3 percent of GDP in five cases: for Denmark, the Netherlands, and the United Kingdom, the excess was in the range of $\frac{1}{2}$ – $\frac{3}{4}$ of 1 percentage point, but it was considerably larger for Finland and Sweden. All these countries except Finland are marked by above-average sensitivity of the fiscal position to the cycle.

It is important to note that, under the standard procedures for the excessive deficit exercise, a country would not incur financial sanctions (initially a nonremunerated deposit) unless the deficit exceeded 3 percent of GDP for two consecutive years, with neither year classifiable as an exceptional and temporary circumstance, and the Council had concluded that the country had not taken effective action following its recommendations to eliminate the excessive deficit.⁵ Even then, special circumstances could allow an extended adjustment period without sanctions. The aforementioned Commission study, examining the actual changes in fiscal positions at times of recession or cyclical slowdown (including the effects of any discretionary measures), concluded that if countries had started from balanced fiscal positions prior to the cyclical weakening, deficits in excess of 3 percent of GDP would have persisted in the year after the recession in only 5 cases of severe recession (out of 24 cases of output decline greater than $\frac{3}{4}$ of 1 percent) and in 1 of mild recession.⁶ (In this

last case, the country had failed to reverse discretionary countercyclical policies despite a strong recovery in the postrecession year).

In general, it appears that the Stability and Growth Pact will not pose a great problem for the operation of automatic stabilizers if countries maintain balanced medium-term (structural) fiscal positions, or small surpluses in the case of countries whose fiscal positions are characterized by above-average sensitivity to cyclical fluctuations. This is not to deny that complications are inevitable in the implementation of the pact. Three can be noted here. First, deep and protracted recessions are likely to require recourse to the special circumstances clause. For such recessions, there may also at times be need for discretionary countercyclical policies, especially in the case of asymmetric shocks, where monetary policy would not be able to provide support. Second, the specification of the exceptional circumstances clause is less well suited to countries with relatively high trend output growth rates, which are less likely to experience output declines during periods of cyclical weakening. Some recognition of this is implicit in allowing accumulated output losses to be taken into account in assessing whether an output decline of between $\frac{3}{4}$ of 1 percent and 2 percent is exceptional, but additional recognition may be needed in implementing the special circumstances provision. Third, many countries at present fall short of the medium-term fiscal goal, placing them potentially in difficult positions if a cyclical weakening should occur early in Stage 3. In a different vein, one needs also to recognize that uncertainties in the measurement of output gaps, inter alia, can make it difficult to achieve a particular goal for the structural balance with a high degree of precision.

In any event, concerns about the potentially constraining effects on countries' abilities to pursue countercyclical fiscal policies need to be put into the perspective of the constraints imposed by large deficits in most EU countries over much of the past twenty-five years. From this viewpoint, the increased discipline involved in adhering to the pact may well permit a greater stabilizing role for fiscal policy than has been possible in most of these countries for many years. At the same time, the achievement of a high degree of price stability, together with the focus of the European System of Central Banks on conditions throughout the euro area (in contrast to the dominant influence of German economic conditions on monetary policy in countries participating in the exchange rate mechanism (ERM)), should allow monetary policy to play a greater stabilizing role than in the past for the euro area as a whole.

³M. Buti, D. Franco, and H. Ongena, *Budgetary Policies during Recessions: Retrospective Application of the Stability and Growth Pact to the Post-War Period*, Economic Paper No. 121, European Commission (May 1997).

⁴Paul R. Masson, "Fiscal Dimensions of EMU," *Economic Journal*, Vol. 106 (July 1996), pp. 996–1004. The EU countries excluded from the sample were Greece, Luxembourg, and Portugal.

⁵An expedited procedure could be used in the case of a deliberately planned deficit that the Council judged to be excessive.

⁶Of course, when a recession starts from a position of overheating, a balanced structural fiscal position would be asso-

ciated with an actual precession surplus. Additional calculations by the authors (not included in the published paper) show that, even when starting from an actual precession surplus corresponding in size to the cyclical budget component, the deficit still remained above 3 percent of GDP in the year after the recession in four out of the five cases of severe recession.

be. The agreement also calls for fiscal positions to be close to balance or in surplus in normal times so as to allow room for automatic stabilizers to operate over the cycle.⁴⁸ In support of this goal, surveillance over medium-term fiscal policies is being strengthened to provide an early warning system in which recommendations for corrective action are made by the Council well before the deficit exceeds the reference value.

The framework for fiscal policy in Stage 3 therefore has a clear emphasis on avoiding excessive deficits. While this is understandable in the context of fiscal performance over the past two decades, it does raise questions as to whether there is adequate scope for the operation of automatic stabilizers and as to whether sufficient weight is placed on ensuring an appropriate fiscal policy stance for the union as a whole.

Concerning the operation of automatic stabilizers, a key question is whether countries keep their underlying fiscal positions close to balance or in surplus. If they accomplish this, historical experience suggests that the reference values of the Stability and Growth Pact would allow adequate room for stabilization in most circumstances (see Box 3). Deep or protracted recessions would cause greater difficulties, but here the pact allows flexibility. In particular, a deficit larger than 3 percent of GDP in the year of a large output decline would not be deemed excessive, because of exceptional circumstances, provided it was temporary and the excess was deemed small. Moreover, if a deficit is deemed to be excessive, the Council can tailor to the circumstances the speed at which the deficit should be corrected if financial sanctions are to be avoided. Thus while the pact requires that normally an excessive deficit be corrected no later than the year after that in which it is identified, the Council may extend the adjustment period to take account of “special” circumstances. While the meaning of “special” in this context has not been elaborated, it would seem appropriate that it should encompass situations where an excessive deficit has emerged even though the country concerned has achieved underlying balance or surplus consistent with the medium-term objectives of the pact; in these circumstances, an excessive deficit would usually reflect a deep or protracted recession.

A particularly difficult case—though not one envisaged in the IMF staff’s projections—would be a weakening cyclical position soon after the start of EMU, when many countries may not have moved close enough to the medium-term goal for fiscal balances. Applying the full force of the Stability and Growth Pact to such a situation might generate significant public and political discontent at a time when unemployment would still be high. On the other hand, to short-

circuit the operation of the pact might erode the credibility of the commitment of EU governments to fiscal discipline.

Regarding the need to ensure an appropriate stance of fiscal policy in the euro area as a whole—and hence an appropriate mix of fiscal and monetary policies—in the absence of a substantive central fiscal function, efforts will need to rely on policy coordination. The treaty provides for the Council to issue annually a set of broad guidelines for the economic policies of EU member states; this has been done since 1993. But how effective these guidelines could be in calibrating the euro area’s fiscal stance is not clear. To date, the guidance has largely paralleled that of the excessive deficit exercise, and it remains to be seen how much independent influence the guidelines might have on policies, particularly as adherence to them is voluntary. Moreover, if the euro area is significantly smaller than the union as a whole, addressing the fiscal needs of the euro area within these guidelines may be a complex task, as the guidelines are adopted by a qualified majority of the Council as a whole. At its meeting in Amsterdam in June 1997, the European Council requested the Council and the Commission to examine how to improve the processes of coordination of economic policies in EMU, and to report to its meeting in Luxembourg in December 1997.

Adjustment Without Exchange Rates

With its monetary and fiscal policy frameworks designed to foster price stability and fiscal sustainability, a key question is how well equipped the euro area will be to absorb and adjust to economic shocks. For the longer-term harmony of the euro area and the success of EMU, it is important that the benefits of monetary union not be clouded by perceptions in individual countries either that the stabilization of prices and output in the national economy is weaker than prior to monetary union or that the effectiveness of stabilization policies varies across the Union. In examining these issues, two benchmarks suggest themselves: the response that would have occurred under the regime existing prior to monetary union and the response that is achieved in other large monetary areas, such as the United States. A number of different types of shocks also need to be considered, including symmetric shocks, which have a similar impact throughout the monetary area, versus asymmetric shocks, which have differential effects across countries; and temporary versus permanent shocks.

To the extent that shocks tend to be *symmetrically* distributed across EU countries, the loss of the possibility of independent exchange rate or monetary policy action at the national level should not impede the ability of countries to adjust to them. Moreover, the considerations outlined above suggest that provided countries adhere to the medium-term goals of the Stability

⁴⁸The importance of strengthening fiscal positions over the medium term, perhaps to positions close to balance, was emphasized in the first broad guidelines for economic policies issued by the Council in 1993.

and Growth Pact, the degree of shock absorption provided by fiscal policy in the euro area should not diminish, and may indeed be greater than has been available for some time.

There are nevertheless a number of factors that may impede areawide adjustment even to symmetric shocks. One relates to international differences in the transmission mechanism for monetary policy. Although, as discussed earlier, these differences do not appear to be worrisome, it will take some time for the transmission mechanism to develop the degree of uniformity that facilitates the work of policymakers in the United States, for example.⁴⁹ A second question relates to the external leakages of fiscal stabilization, which can be quite large, especially from the smaller, more open EU economies. Thus, following a shock that results in a general economic downturn, in the absence of policy coordination the amount of fiscal stabilization done in aggregate might be suboptimal. The inadequacy of fiscal stabilization might be especially pronounced if the shock was of such a magnitude as to threaten a widespread breach of the Stability and Growth Pact, as this would represent an additional disincentive to allow automatic fiscal stabilizers to work or to engage in discretionary fiscal action. These issues are less important in other large monetary areas where there is an important central stabilization role, and it remains to be seen how quickly the development of policy coordination in the euro area can compensate in this regard. Finally, countries' abilities to adjust to symmetric shocks will depend on the respective economies' structural flexibility. Thus, the greater the flexibility of markets in all the national economies, the less likely it is that significant deviations in performance will develop.

In gauging the impact of EMU on countries' abilities to absorb and adjust to shocks, a more critical set of issues revolves around *asymmetric* disturbances. It is here that common policy responses are more likely to be ineffective and the loss of independent monetary and exchange rate policies at the national level is likely to be more constraining. The nature and magnitude of the problems that could arise will depend inter alia on the incidence of asymmetric shocks, on whether shocks are temporary or permanent, on the scope for fiscal policy to cushion shocks and ease adjustment, and on the availability of other adjustment mechanisms, particularly through the flexibility of internal markets.

The incidence of asymmetric shocks in the past appears to have been more pronounced in the EU than in the United States, but for a "core" group of EU coun-

tries, the difference does not appear to have been substantial (Box 4). In fact, the incidence of asymmetric demand shocks in the EU may diminish after the euro is introduced, as asymmetric developments induced by national monetary policies or exchange rate movements within the euro area will no longer be a factor; and the discipline imposed by the Stability and Growth Pact should reduce the prevalence of fiscal shocks in the medium term.⁵⁰ On the other hand, this tendency toward a lower incidence of asymmetric shocks may be offset if member economies become more specialized in production.

The nature of the policy challenge presented by shocks depends on whether they are temporary or permanent. In the case of temporary shocks, the challenge seems unlikely to be more difficult with EMU than in the ERM.⁵¹ Monetary policy and exchange rate flexibility have typically not been used in the ERM as means of adjustment to such shocks,⁵² and, as noted earlier, the scope for fiscal stabilization should not be any less than in the past, if countries adhere to the medium-term strategy of the Stability and Growth Pact.

An important question, nevertheless, is whether economic stabilization could be strengthened if part of this function were assigned to a central fiscal institution. The experience of the United States and other federal systems with diverse economic regions points to the potential effectiveness of a central system of automatic stabilizers.⁵³ On the other hand, there seems to be no reason in principle why a similar degree of effective stabilization could not be carried out by national governments in the euro area, as the principal stabilization tools used by central governments in federal systems will be the prerogative of national governments in EMU. Indeed, in the past, the stabilization performed by national governments in the EU seems to have been similar to that provided by the U.S. federal system.

⁵⁰In the short term, however, countries' differing efforts to comply with the medium-term fiscal goals may well be a source of asymmetric shocks.

⁵¹Of course, independent of EMU, it is often difficult to determine the duration of a shock when it first occurs.

⁵²The exception here is Germany, which will no longer be able to marshal monetary policy to deal with shocks that particularly affect itself.

⁵³It has been estimated by Xavier Sala-i-Martin and Jeffrey Sachs, "Fiscal Federalism and Optimum Currency Areas: Evidence for Europe from the United States," in *Establishing A Central Bank: Issues in Europe and Lessons from the U.S.*, ed. by Matthew Canzoneri, Vittorio Grilli, and Paul R. Masson (Cambridge: Cambridge University Press, 1992), pp. 195–219, that federal taxes and transfers in the United States may offset almost one-third of the deviations of per capita income from the national average. This estimate may, however, exaggerate the stabilization role of federal fiscal policy by conflating it with its interregional income redistribution role. Other studies that have taken account of this problem have arrived at lower estimates, in the 10–20 percent range. See T. Bayoumi and P.R. Masson, "Fiscal Flows in the United States and Canada: Lessons for Monetary Union in Europe," *European Economic Review*, Vol. 39 (February 1995).

⁴⁹Monetary policy is also likely to have asymmetric effects on fiscal balances, depending in particular on the size and term structure of government debt and on whether it is at fixed or floating rates. This may carry implications for the ability of different countries to adhere to the Stability and Growth Pact.

Box 4. Asymmetric Shocks: European Union and the United States

A natural benchmark for assessing the likely magnitude and effects of asymmetric shocks in the euro area is the experience of the United States in this regard. The United States and the EU are roughly comparable in terms of population, economic size as measured by GDP, and openness to trade. Since the United States has been a currency area for a long time, a comparison of the incidence of shocks between the United States and the EU should provide an indication of some of the challenges that the currency union in Europe may face.¹

One way of gauging the likely effects of asymmetric shocks in the euro area is to compare the correlation of output fluctuations across EU countries with that for U.S. regions. The *table* reports the correlation coefficients of output growth fluctuations between west Germany and other EU countries, and between the Mideast region of the United States and other U.S. regions, over 1964–90.² Fluctuations in output growth, in general, were more highly correlated across U.S. regions than across EU countries over the period. Nevertheless, in both cases there appears to have been a “core” (in the EU: west Germany, France, the Netherlands, Belgium, and Austria; in the United States: the Mideast, New England, Great Lakes, and Southeast states) where fluctuations in output growth tended to be relatively highly correlated.³ Output growth fluctuations in the “peripheral” regions were much less highly correlated with their respective anchor areas in both the United States and the EU. An interesting finding shown in the table is that even though the correlation coefficients of output growth fluctuations across the EU core are lower than those across the U.S. core, the differences are not very large: they are considerably smaller, in par-

¹A number of studies have attempted to compare the incidence of shocks and adjustment mechanisms in the United States with those in the EU. See T. Bayoumi and B. Eichengreen, “Shocking Aspects of European Monetary Unification,” in *Adjustment and Growth in the European Monetary Union*, ed. by Francisco Torres and Francesco Giavazzi (Cambridge, England; New York: Cambridge University Press, 1993); and T. Bayoumi and E. Prasad, “Currency Unions, Economic Fluctuations and Adjustment: Some New Empirical Evidence,” *Staff Papers*, IMF (March 1997), pp. 36–58.

²West Germany offers a natural standard for comparison in the case of the EU for the period considered, being the largest economy, and having played the anchor role in the ERM. The Mideast region of the United States, being the largest economically, provides a corresponding standard for comparisons across the U.S. regions. The choice of 1990 as the end-point for the analysis has been motivated by the need to leave out the effects of German unification on the correlations of output fluctuations across the EU countries. Using the average rates of growth for the United States and the EU instead of those for the Mideast region and west Germany do not alter the results significantly. These issues are discussed in more detail in Bayoumi and Eichengreen, “Shocking Aspects.”

³The regional groupings of U.S. states are as defined by the Bureau of Economic Analysis of the U.S. Department of Commerce.

Correlation Coefficient of Output Growth with Anchor Areas, 1964–90

U.S. states	
Mideast	1.00
New England	0.92
Great Lakes	0.87
Southeast	0.84
Plains	0.74
Far West	0.68
Southwest	0.34
Rocky Mountains	0.18
EU countries	
West Germany	1.00
Netherlands	0.77
France	0.71
Belgium	0.71
Austria	0.70
Denmark	0.61
Greece	0.61
Spain	0.54
Portugal	0.49
Ireland	0.48
Italy	0.47
Sweden	0.43
Finland	0.41
United Kingdom	0.19

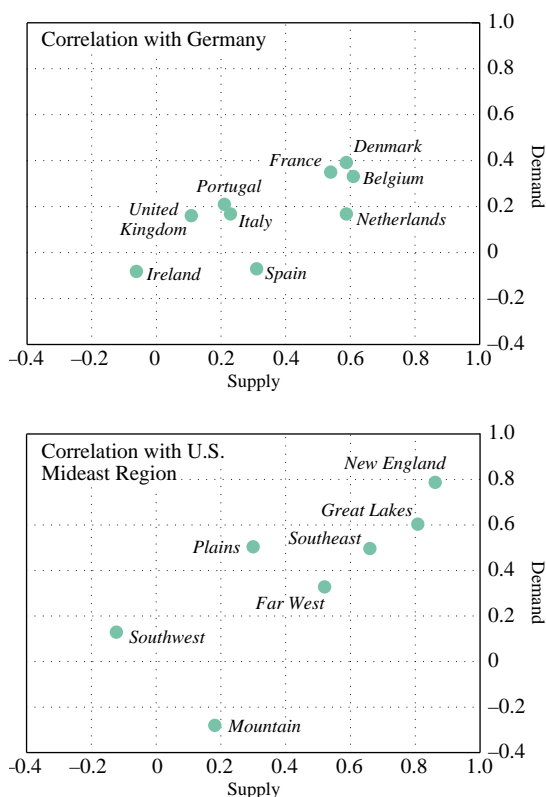
Note: The correlation coefficients of output growth with anchor areas in the United States were found to be stable with respect to the choice of different time periods. The correlation coefficients in the EU “core” were also found to be stable when different time periods were chosen. However, the correlations of output growth between the anchor area and Finland, Sweden, and the United Kingdom were found to vary with the choice of time period. For instance, choosing 1973–90 as the reference period increased the correlation coefficients for the United Kingdom but reduced them significantly for Finland and Sweden. Nevertheless, these three countries continued to be part of the “periphery” irrespective of the time period chosen.

ticular, than the differences within the United States between the core and the periphery.

These results tend to be reinforced by analyses that decompose the aggregate disturbances into supply and demand shocks. Supply shocks refer to unanticipated disturbances, for instance, to technology or commodity prices, and tend to have relatively long-lasting effects on output and prices. Examples of supply shocks are the oil price increases of the 1970s. Demand shocks arise owing to such developments as unanticipated disturbances to business behavior, consumer preferences, or export demand, as well as significant changes in monetary and fiscal policies. Demand shocks tend, in general, to have less long-lasting effects on output, but more permanent effects on the level of prices. German unification, which changed the mix of monetary and fiscal policies in Europe, is an example of an asymmetric demand shock. Following the method used in the study by Bayoumi and Eichengreen,⁴

⁴Bayoumi and Eichengreen, “Shocking Aspects.”

Correlation of Demand and Supply Shocks with Anchor Areas



Source: T. Bayoumi and B. Eichengreen, "Shocking Aspects of European Monetary Unification," in *Adjustment and Growth in the European Monetary Union*, ed. by Francisco Torres and Francesco Giavazzi (Cambridge, England; New York: Cambridge University Press, 1993).

the figure plots the correlations of the fluctuations in output arising from demand and supply shocks of the different countries in the EU with those in Germany, and the corresponding correlations for the different regions of the United States with those in the Mid-east states over 1962–88. Fluctuations in activity due to both supply and demand shocks tended to be more highly correlated across U.S. regions than across EU countries. However, as with aggregate disturbances, fluctuations in output due to supply shocks in the cores of both the United States and the EU were more highly correlated with their respective anchor areas than was the case with fluctuations in output due to supply shocks in the respective peripheral regions. The same

is true of fluctuations in activity arising from demand shocks.

The broad picture that emerges from this analysis is that the asymmetric effects of shocks were relatively more pronounced in the EU than in the United States during 1962–88. For the core group of EU countries, however, even though the asymmetric effects on output of shocks were larger than in the United States, the magnitudes of the differences do not appear to be substantial. However, as far as judgments about the economic viability of the euro area are concerned, past instances of asymmetric effects of shocks can provide only a partial guide to what the future holds. The introduction of the single currency will constitute a major regime change that will have significant implications for the pattern of likely shocks in the euro area. The incidence of asymmetric demand shocks, in particular, is likely to diminish after the single currency is introduced, because the countries in the euro area will not be able to pursue independent monetary policies, and exchange rate fluctuations within the area will be eliminated.

The impact that the regime change will have on the pattern of supply shocks is harder to predict. The introduction of the single currency may lead to more specialization in manufacturing among countries in the EU than exists currently. Consequently, there is some potential for an increase in the incidence of asymmetric supply shocks (as well as asymmetric demand shocks) due to this factor after the single currency is introduced.⁵ However, any such locational changes in manufacturing production are bound to take place only gradually. Moreover, research indicates that the United States is regionally more specialized than the EU only in the production of manufactures; there are no significant differences in regional specialization as far as the rest of the economy is concerned.⁶ In sum, while increased specialization in manufacturing may tend to increase asymmetric shocks in the euro area, it is likely to be offset by the reduction in asymmetric demand shocks implied by a unified monetary policy and tight constraints on national fiscal policies under EMU.

⁵Paul R. Krugman, *Geography and Trade* (Leuven, Belgium: Leuven University Press, 1991), points out that manufacturing production is currently more regionally specialized in the United States than in the EU and argues that the introduction of the single currency will lead to greater regional specialization as firms seek to maximize various network externalities. However, product market integration is unlikely to increase the incidence of asymmetric shocks if such integration is characterized by intra-industry rather than inter-industry specialization, and if the incidence of industry-specific shocks is more important than country-specific shocks. See the discussion in Alan C. Stockman, "Sectoral and National Aggregate Disturbances to Industrial Output in Seven European Countries," *Journal of Monetary Economics*, Vol. 21 (May 1988), pp. 387–409.

⁶See Bayoumi and Prasad, "Currency Unions."

The principal case, in the context of temporary asymmetric shocks, for supplementing national fiscal stabilization with a central fiscal stabilization function would seem to be to provide a means of sharing risk. Thus countries that experience an above-average incidence or severity of temporary shocks would have the costs of their bad luck shared by others. The desirability of such insurance might be increased by the constraints on government borrowing associated with the Stability and Growth Pact, and it would be particularly valuable to more open economies, given the fiscal leakages discussed earlier. The design of risk-sharing mechanisms is, however, quite complicated, owing partly to moral hazard problems, as such mechanisms would lessen the need for individual economies to make themselves more adaptable to economic shocks. The approach chosen in the Maastricht Treaty was the adoption of quite restrictive provisions for community financial assistance to member countries.⁵⁴

In the case of longer-lasting asymmetric developments, the role of fiscal policy is necessarily more limited since adjustment rather than financing is required.⁵⁵ Exchange rate changes, including within the ERM, have provided an important tool for EU countries in such circumstances, by facilitating adjustment in the face of nominal rigidities. It is to be hoped that more disciplined fiscal and monetary policies will help avoid misalignments of costs and prices in EMU. Nevertheless, with the possibility of exchange rate changes among countries in the euro area no longer available, adjustments in wages and labor mobility among countries in the euro area will need to play a larger role. Here, present differences between the EU and the United States are striking. Real wage flexibility in the EU has been estimated at about one-half of real wage flexibility in the United States.⁵⁶ Further, labor mobility across and within EU countries is also low by U.S. standards.⁵⁷ This adds to the need, which

exists anyway given Europe's high levels of unemployment, for the EU to reform labor markets in ways that would reduce rigidities, by increasing wage flexibility. While cultural and linguistic differences will inevitably continue to limit migration, it is also important in this context to examine the scope for reducing further the barriers to labor mobility across national boundaries.⁵⁸

Overall Assessment of the Policy Framework

The above analysis suggests that the failure to recognize explicitly the importance of flexible labor markets was an important omission from the Maastricht framework. In the years since the treaty was signed, spurred by the persistence of high unemployment, there have been efforts to strengthen surveillance of labor market policies by the EU, but this surveillance has been relatively weak partly because of the tenet that labor market policies are a matter principally for national policymakers. Thus, for example, the broad economic guidelines set out each year by the Council have avoided country-specific references in this area, and the broad-ranging nature of the employment strategy that has been discussed at the EU level may have diffused the attention needing to be given to difficult questions in the areas of social benefit systems and labor market regulations.

In recognition of the lack of progress in solving the EU's labor market problems, the draft Treaty of Amsterdam, agreed in June 1997, makes employment policies explicitly a matter of common concern and sets out procedures for the surveillance of these policies. At the same time, the heads of state or government stressed the need for the Council to strengthen the focus on employment in the broad economic policy guidelines and made plans for an employment summit later in 1997. While these steps may well strengthen the framework at the EU level, the reluctance of many EU member countries to embark on fundamental labor market reforms will need to be overcome. EMU itself may help in this regard, since with the exchange rate (particularly the escape hatch of depreciation) no longer available as an instrument of adjustment at the national level, understanding by policymakers of the need for other means of adjustment may be expected to increase.

⁵⁴Article 103a (2) of the treaty allows for community financial assistance only to a member state that "is in difficulties or is seriously threatened with severe difficulties caused by exceptional circumstances beyond its control" and when the assistance is supported unanimously by the Council, except that in the case of natural disasters the Council shall act by qualified majority.

⁵⁵The EU's structural funds provide assistance to foster structural adjustment in EU regions generally, in addition to their more highly publicized role of assisting the catch-up process in member states with per capita national incomes significantly below the EU average.

⁵⁶See Layard, Nickell, and Jackman, *Unemployment, Macroeconomic Performance and the Labor Market*.

⁵⁷It has been estimated that labor mobility across the different states in the United States is almost three times more than labor mobility within both France and Germany. See B. Eichengreen, "Labor Markets and European Monetary Unification," in *Policy Issues in the Operation of Currency Unions*, ed. by Paul R. Masson and Mark P. Taylor (Cambridge: Cambridge University Press, 1993), pp. 130–62. Olivier J. Blanchard and Lawrence Katz, "Regional Evolutions," *Brookings Papers on Economic Activity: 1* (1992), pp. 1–75, estimate that in the United States during 1970–90 more than half of the

adjustment in the first year following a shock occurred through migration. In contrast, Jorg Decressin and Antonio Fatas, "Regional Labor Market Dynamics in Europe," *European Economic Review*, Vol. 39 (December 1995), pp. 1627–55, using a similar methodology, found that migration played very little role in the EU.

⁵⁸Progress in this regard has already been made as part of the implementation of the single market program, for example, in the mutual recognition of educational and skill qualifications and the portability of pensions, but more needs to be done in these and other areas, including arrangements for taxation and welfare benefits for cross-border commuters.

In the monetary and fiscal areas, the emerging policy framework appears to strike a good balance between rules and the necessary scope for the exercise of judgment in the implementation of policies. The design of the Stability and Growth Pact is notable in this regard. Adherence by EU member states to the medium-term goals of the pact, together with the flexibility allowed to deal with “exceptional” and “special” circumstances, should provide adequate scope for the use of budgetary policy to deal with shocks. Thus, the absence of a central fiscal function should not pose the problems that are commonly perceived. Without such a central fiscal function, however, the task of ensuring an appropriate stance of fiscal policy for the euro area as a whole, and an appropriate mix of fiscal and monetary policies in the euro area, will require stronger procedures for policy coordination. As to monetary policy, considerable discipline is established by the priority given to price stability in the mandate of the ESCB, bolstered by other provisions that insulate decision makers there from political pressures. At the same time, the ESCB should have the flexibility it needs to deal with the uncertainties concerning the demand for financial assets and the transmission mechanism that are likely to be particularly intense in the early part of Stage 3.

However, one should not underestimate the challenges that will face policymakers in the early years of EMU. In the area of monetary policy, it will be necessary for EU policymakers from diverse national backgrounds to establish common positions and take operational decisions in a timely way on matters that have hitherto been determined at the national level. At the same time, uncertainties noted in the previous paragraph will complicate the assessment of the impact of policies. These challenges are likely to be more intense the greater the number of countries that participate initially.

While the low inflation prevailing in the EU provides a good starting point for the single monetary policy, the markets are likely to follow very closely the decision-making process until the ESCB has fully established its credibility, to assure themselves that monetary policy is staying true to its anti-inflation mandate. To provide this assurance—while at the same time maintaining a balanced approach to policy that allows the ESCB to take due account of other goals such as stabilizing output—it will be critical for the ESCB to explain carefully and clearly its strategy and the rationale for its actions.

In the area of fiscal policy, too, the coordination needed will be greater than has been the practice to date. With progress in establishing strong fundamentals not as good as in the monetary area, there will in addition be special scrutiny given to the Council’s implementation of the Stability and Growth Pact. The Council will be in a much better position to use the scope for flexibility in the pact, should it see the need,

if markets are convinced of the commitment to fiscal discipline. Thus, further durable progress in fiscal convergence during the remainder of Stage 2 is, as is discussed below, imperative.

Establishing Conditions for a Successful EMU

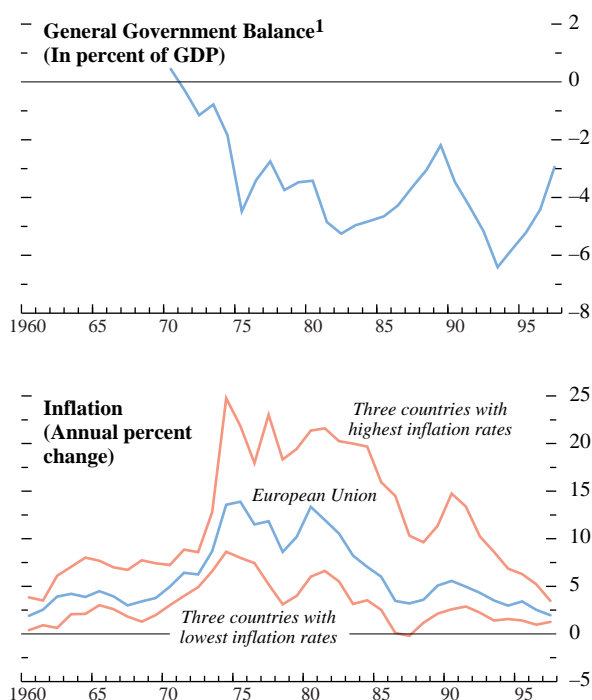
It has been clear since monetary union became an aspiration of European policymakers that for EMU to function successfully, the participating economies would need to satisfy a number of conditions relating to convergence of economic performance. To provide a basis for assessing the readiness of countries to participate in EMU, the Maastricht Treaty established convergence criteria in the areas of inflation, public finances, interest rates, and exchange rates (see note to Table 11), and prior to the decision on which countries are ready for EMU, the Commission and the EMI will provide reports evaluating how countries have complied with these criteria, and the European Parliament will also give its opinion. These reports will be based on actual outcomes in 1997 but will also take account of budgets for 1998 in assessing whether fiscal positions are sustainable. Many observers have assumed that in coming to its decision on the start of EMU, the Council will also consider other factors such as whether there are sufficient qualified countries to initiate EMU, the desirability of having as broad a monetary union as possible, subject to ensuring a sound footing for the euro, and the political importance of the project.

In the period since the treaty was signed, the EU countries have made considerable progress in macroeconomic convergence (see Table 11). For 1997, average consumer price inflation in the EU as a whole is projected at 2 percent, less than half of what it was when the treaty was agreed in 1991, with all EU members, except Greece, expected to have inflation below 3 percent. EU inflation is now lower than at any other time in the last thirty-five years (Figure 21). Important improvements have also been made in the fiscal area. The EU-wide general government deficit in 1997 is projected at $2\frac{3}{4}$ percent of GDP, some $3\frac{1}{2}$ percentage points lower than its peak in 1993. Corrected for the effects of the economic cycle, the general government deficit has been narrowing steadily since 1991 (Figure 22).

With significant convergence in inflation and in public finances, and with progress toward EMU seen to be gathering momentum, long-term interest differentials vis-à-vis Germany have fallen to historically low levels. These differentials are now less than 1 percentage point for all ERM countries, and in a number of cases the differential has effectively disappeared. Paralleling convergence in interest rates, conditions in the ERM have been relatively settled since the spring of 1995 and, against the background of a strengthen-

Figure 21. European Union: Inflation and General Government Balance

The steady convergence of inflation since the 1970s contrasts with the continued growth of fiscal deficits up to the early 1990s.



¹Excludes Greece.

ing trend in the U.S. dollar, there has been a significant convergence of market exchange rates on central rates against the deutsche mark.⁵⁹

Countries' efforts to improve inflation and fiscal performance in recent years have not been without short-term costs in terms of weaker activity, coming at a time when macroeconomic conditions were already relatively weak. But fiscal positions in most countries needed correction, independent of the requirements of the Maastricht Treaty. Moreover, the costs of fiscal consolidation should not be exaggerated. Reducing fiscal deficits has facilitated sharp falls in interest premiums in a number of countries and an easing of monetary conditions more generally. Furthermore, the faltering of Europe's recovery in 1995–96 also reflected the impact on confidence of inadequacies in structural policies in many countries—notably the slow pace of labor market reforms, but also the limited progress in the reform of government spending programs and the consequent overdependence on tax measures in fiscal consolidation efforts.

Despite the efforts made, it has proven more difficult than expected to meet all the reference values set in the treaty. All countries aiming to join EMU from the start already satisfy the treaty's requirements for inflation and long-term interest rates. Nor is the exchange rate criterion expected to pose an obstacle for these countries.⁶⁰ In the fiscal area, however, the three largest of these countries—France, Germany, and Italy—are projected, in the absence of new measures, to slightly exceed the Maastricht reference value for the deficit, with some other countries satisfying it with little margin to spare. Given the inherent uncertainty of macroeconomic projections—fiscal positions may turn out a little stronger than projected, without a change in policies, but they could just as easily be weaker—it is still unclear how many countries will in 1997 have deficits of 3 percent of GDP or below. The difficulties encountered in deficit reduction have been reflected also in slower-than-expected progress in debt reduction: only in 1997 has the EU-wide gross general government debt ratio stabilized, with the level for most countries in excess of the reference value.

⁵⁹Excluding the Irish pound, the deviations of the strongest and weakest currencies from their bilateral central rates have typically been in the range of 2–4 percent since the spring of 1996. Since November 1996, the Irish pound has appreciated significantly relative to its central rate but this has reflected country-specific factors (related partly to the appreciation of the pound sterling) rather than broader tensions within the system.

⁶⁰Three EU countries, Greece, Sweden, and the United Kingdom, are not members of the ERM. Greece and Sweden do not plan to participate in Stage 3 at its inception and the government of the United Kingdom has stated that it is unlikely to participate at the outset. While Finland (which joined the ERM in October 1996) and Italy (which rejoined in November 1996) will not have been members for a full two years when the decision on membership is reached, this is not expected, in itself, to present an obstacle to the membership aspirations of these countries.

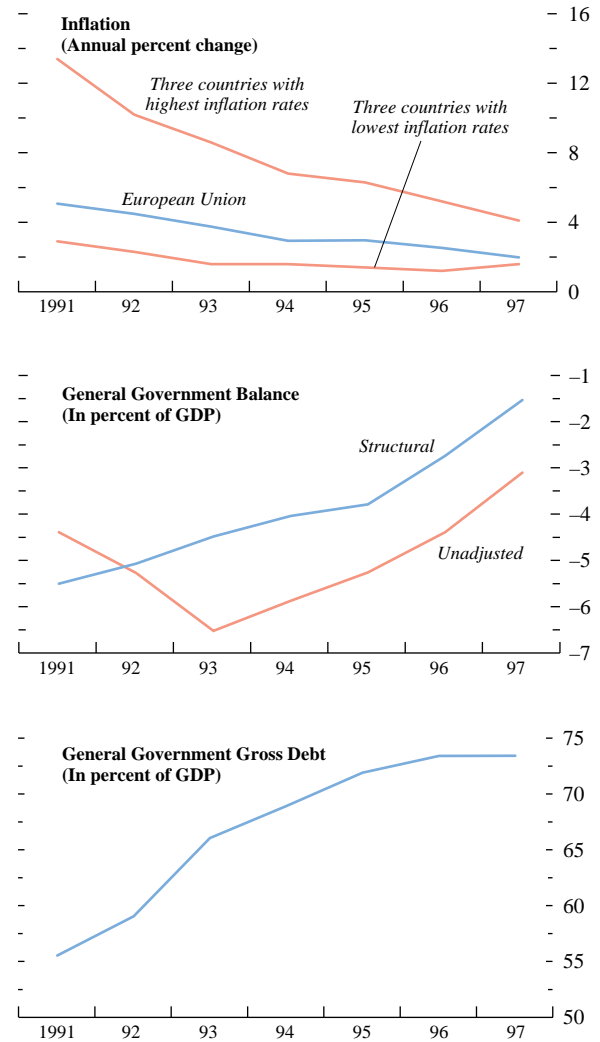
The treaty, of course, does leave room for judgment in assessing compliance with the convergence criteria. And it is important that countries' performance be considered in the context of the economic rationale for the criteria, which is that they are indicators of a country's ability to subscribe to macroeconomic policies that are conducive to the smooth working of a monetary union with low inflation, and that in particular help avoid spillovers that might weaken the credibility of monetary policy. It is clear that the inflation performance of the EU countries in recent years provides a propitious starting point for the new central bank. What is less clear is how shortfalls from the fiscal criterion should be assessed.

The deficit and debt reference values specified in the treaty do not represent definitive thresholds of danger; no such precise thresholds exist. Nevertheless, despite an inevitable degree of arbitrariness, they do provide reasonable reference points for assessing whether countries are straying too far from their medium-term goal of a balanced fiscal position, and thus a barometer of their commitment to that goal. A country's performance in this respect needs to be interpreted in the context of its cyclical position. It is clear that countries have made important strides in strengthening their cyclically adjusted fiscal positions in the 1990s. Indeed, the EU-wide cyclically adjusted fiscal deficit is projected at around 1¼ percent of GDP in 1997, some 2½ percent of GDP lower than in 1995, with all countries that plan to participate in EMU from its start well below 3 percent. Moreover, while most countries still have some way to go in establishing an underlying fiscal position that would allow the operation of automatic stabilizers in normal circumstances without breaching the treaty's reference values, they have underlined their commitment to sustained fiscal discipline through their Stability and Growth Pact.

There are, however, some factors casting a shadow on fiscal performance. First, a number of countries have relied to varying degrees on temporary measures in 1997 to reduce their deficits, with some of these measures being essentially cosmetic. More generally, by failing to achieve their goals through structural reforms producing durable cuts in spending, many countries have missed an opportunity to demonstrate their unequivocal commitment to fiscal discipline. It is therefore important that countries continue to follow through on their fiscal policy commitments and introduce new reform-based measures that will ensure further substantive adjustment in 1998, while also strengthening confidence that adjustment will be lasting. The case for allowing countries to move to Stage 3 despite small deviations from the Maastricht reference values would be stronger if there were assurances that sustainable fiscal adjustment was being undertaken. Progress in reducing structural deficits is also essential to prevent potential complications in the operation of the Stability and Growth Pact at the beginning of Stage 3.

Figure 22. European Union: Inflation, General Government Balance, and Gross Debt

In the 1990s, continued convergence of inflation has been accompanied by substantial fiscal consolidation.



In coming to a decision on countries' eligibility for Stage 3, the Council will not focus explicitly on whether countries have developed sufficiently flexible labor and product markets to make up for the loss of the exchange rate instrument. As noted earlier, this is clearly a critical issue for individual member states, not just because of the social, economic, and budgetary costs of the existing high levels of unemployment but also because of the need for more flexible markets to help their adjustment to shocks and to make their economies more efficient. One should also not underestimate its systemic implications for the euro area. A failure to address labor market problems would prevent Europe from realizing its full growth potential, and could also weaken the credibility of the euro if financial markets perceive that persistent unemployment is eroding support for prudent macroeconomic policies.

The persistently high structural unemployment in the EU—estimated at 8–9 percent of the labor force in 1997—points to the limited progress made in many EU countries in addressing structural weaknesses in labor markets. There is a need for more comprehensive and sustained efforts to increase incentives to work, to acquire skills, and to create productive jobs. This will require fundamental reform of overly generous social benefits systems and the relevant aspects of tax systems, of minimum wage regulations, and of other regulations that impede wage flexibility or discourage the creation of new jobs by limiting employers' ability to dismiss employees. Measures in these areas need to be complemented by further steps to enhance the competitiveness of product markets.⁶¹

Managing Uncertainties in the Preparations for EMU

The progress that EU countries have made in macroeconomic convergence, together with the institutional framework for macroeconomic policy that is being put in place for EMU, goes a long way to establishing a solid basis for the euro. There is also a strong political commitment to implement EMU at the beginning of 1999. Nevertheless, significant uncertainties remain that could ignite financial market tension.

A particularly difficult scenario would be one in which a delay in EMU's start date was perceived as a significant possibility.⁶² While interest differentials suggest market confidence that EMU will start on time, there has been persistent concern that some key countries may not satisfy the treaty's reference values in the

fiscal area. This in turn has focused attention on questions concerning how the scope for judgment provided in the treaty will be used by the Council in assessing fiscal performance, how large a deviation from the reference values would require a delay, and how much weight will be placed on budgets for 1998. Moreover, it is unclear how much latitude in the interpretation of the convergence criteria would be viewed by the German Parliament or the German Constitutional Court as a failure to comply with the treaty.⁶³

A second set of uncertainties relates to whether specific countries will qualify for initial participation if EMU begins on time. In addition to doubts surrounding the effectiveness with which these countries are carrying through their budgetary plans and how the scope for interpretation of the treaty will be used, there are questions as to whether a failure to qualify might weaken political support for fiscal discipline, given that exclusion would entail failure to meet the strong political commitment to being among the initial members.

The decision on which countries will initially participate in EMU will not remove all uncertainty. In the absence of clear and credible guidance, there may be questions concerning the exchange rates at which currencies will be locked. The treaty provides little explicit direction on this; its requirement relating to exchange rate stability applies only up to the time when the decision to start EMU is made. There will also be uncertainties related to the central parities against the euro for the currencies participating in ERM2, as they will not be established formally until the start of Stage 3.

Concerns about whether the process as a whole will proceed as planned could lead to widespread turbulence in European financial markets, which would erode confidence further, slow output growth, and widen fiscal deficits. The dangers of such turbulence would intensify if economic recovery in Europe were to be slower than presently envisaged, unemployment were to rise further, and calls for misguided policy actions aimed at the creation of jobs through public expenditure initiatives were to intensify. Moreover, an announcement of a delay in the start of EMU that did not offer credible assurance that EMU itself was not in question—and how such assurance could be provided is not obvious given that the treaty does not provide for a delay—would be likely to result in turmoil that could derail the entire process. This, in turn, could have adverse consequences for other projects directed

⁶¹See also Chapter I. Progress with labor market reforms in Europe is discussed in Chapter II, pp. 39–42.

⁶²It is not clear how a delay of the starting date beyond January 1, 1999 could be arranged. One view is that it would require an amendment of the treaty, which would have to be ratified by all member states.

⁶³The German authorities have consistently emphasized the need for a strict interpretation of the treaty, as did the German Parliament when ratifying the treaty, out of concern that a softening of the criteria would undermine public acceptance of the euro. The parliament will give guidance to the German government on the position to take at the meeting of heads of state or government in spring 1998, and the German government is committed to accepting this advice. The German Constitutional Court, in a 1993 decision, reserved the right to examine cases challenging whether decisions by EU institutions were consistent with the treaty.

at strengthening economic integration in Europe and call into question the viability of the ERM. Even if the EMU process could be kept on track in face of such pressure, market turbulence would have adverse consequences both for EU countries themselves and for other countries that have close exchange rate or trade links to the EU. Turmoil in the run-up to EMU could also weaken the initial credibility of the euro.

The best way to minimize uncertainties about the start of EMU and to ensure that a sustainable and strong EMU begins on time would be for countries to take fiscal actions in the remainder of 1997 and in 1998 that demonstrate their commitment to the requirements of the treaty and of the Stability and Growth Pact, particularly through fundamental reforms that also address some of the root causes of Europe's unemployment problem and excessive levels of public expenditure. The management of the EMU process would also be facilitated if governments reached early understandings that resolved the uncertainties noted above about how decisions on participation in EMU will be made. Such understandings should not necessarily be made public, but they should help to avoid potentially damaging public disharmony. Progress in these areas would in turn facilitate closer coordination of monetary policies geared toward economic conditions in the ERM as a whole, which would further reinforce confidence that EMU will start on time.

Uncertainties surrounding an individual country that did not call into question the EMU process itself would have less widespread effects but could nevertheless damage economic performance both in the country in question and in countries with close ties to it. The dangers would be greatest where there were doubts about the willingness of the country to continue the pursuit of disciplined policies. A country in this position would need to signal through its actions a resolve to persevere with fiscal adjustment. This could be combined with clear statements by EU leaders that the country concerned would be admitted to the euro area as soon as its economic performance permitted, on the same basis as countries in the first wave.⁶⁴

Managing the Locking of Exchange Rates

The treaty states that the locking of exchange rates shall not in itself modify the external value of the ECU (European currency unit), the official currency basket that will be converted into the euro at a rate of one to one. While no further official interpretation has been given to this provision, it is generally expected that

⁶⁴The treaty specifies that the status of countries not participating in Stage 3 would be reconsidered at least once every two years, but that earlier consideration would be given at the request of the country concerned. The entry criteria to be applied to countries joining the euro area after January 1, 1999 will be the same as those applied to the initial participants.

currencies will be locked using the bilateral market rates prevailing on the last working day prior to the monetary union; this would be sufficient to ensure that currencies have the same value in terms of the euro at the opening of its first day of trading as they had in terms of the ECU at the close of its last day of trading.⁶⁵ Consistent with this interpretation of the treaty, however, there are different possibilities for managing exchange rates in the final months of the transition to EMU.⁶⁶

One approach would be to continue with existing exchange rate arrangements. It could be argued that there would be only minimal risk in such a strategy since the macroeconomic fundamentals would be in place and, as required by the treaty, exchange rates among participating countries would have been stable for at least two years prior to the decision. Moreover, this approach would allow room for a realignment, should a large asymmetric shock occur prior to EMU. This latter consideration, however, seems out of tune with an assessment that countries are ready to enter a monetary union. More generally, the experience of the 1990s suggests that even if central rates were not perceived to be misaligned, exchange rates might nevertheless be subject to speculative pressure, sparked by such factors as political developments and uncertainties about future economic policies. For example, market perceptions could emerge that a country would be happy to see a depreciation of its currency to strengthen its competitive position before entering the euro area.

In view of the above, there is a strong case for pre-announcing the bilateral rates that will be used to lock in the participating currencies, by the time that entry decisions are made in spring 1998.⁶⁷ It is critical, how-

⁶⁵Under an alternative interpretation of the treaty, a different set of rates from those prevailing on the last day of Stage 2 could also be consistent with this requirement, as long as the implied depreciation of one participating currency against the ECU (weighted by its ECU-basket share) was exactly offset by the appreciation of one or more of the other participating currencies (similarly weighted). Last minute realignments, however, would not appear to be consistent with the spirit of the treaty.

⁶⁶Some of the issues that arise are discussed in David Begg, Francesco Giavazzi, Jürgen von Hagen, and Charles Wyplosz, *EMU, Getting the End-Game Right* (London: Center for Economic and Policy Research, February 1997); and by Maurice Obstfeld, "Strategy for Launching the Euro" (unpublished; University of California, Berkeley, February 1997).

⁶⁷Even if the bilateral rates among currencies of participating countries were to be preannounced, it would not be possible to set the conversion rate of each currency to the euro until the start of 1999 because the value of the nonparticipating currencies that are in the ECU basket could fluctuate in the final part of Stage 2. It should also be noted that the initial exchange value of the euro in terms of non-EU currencies will depend on the behavior of all currencies in the ECU basket up to the end of Stage 2. As long as market rates on the last day of Stage 2 are used, however, there will be no discontinuity between the exchange rates of participating countries against nonparticipating countries at the end of Stage 2 and the implicit rates at the beginning of Stage 3.

ever, that the rates announced are broadly consistent with economic fundamentals. Until the needed improvements in the functioning of EU labor markets are secured—and this will take some time, even assuming that reform efforts intensify—downward inflexibility of nominal wages, combined with low inflation in the euro area, will make it difficult to achieve substantial and rapid adjustments to the pattern of real exchange rates within the euro area.⁶⁸ It is also important that any preannouncement be credibly backed by commitments from monetary policymakers.

It is widely assumed that any preannouncement of bilateral conversion rates would be based on experience in the period leading up to the announcement. For most countries, bilateral rates are likely to have been relatively stable over the previous two years. Moreover, since the choice of rates at which currencies of participating countries are locked requires a unanimous decision by the Council, it may be easier to secure agreement based on the status quo than on some other set of rates. One option would be to use the existing bilateral central rates in the ERM. Selecting other rates might be seen as setting an awkward precedent for potential future members of the euro area, as it would cast doubt on whether the central parity against the euro in ERM2 was a good guide to the rate at which a country would enter. A close alternative would be to use the average of the rates in a defined period prior to the announcement. For most countries, this would produce an outcome close to that involved in the use of central rates, but it would allow some accommodation of special circumstances, such as the divergence of the Irish pound from its bilateral central rates against other ERM currencies over the past year.

It is difficult to judge with any precision what risks would be entailed in adopting the current pattern of bilateral rates as the basis for the conversion. While there is no evidence that present market rates in the ERM are widely out of line with fundamentals, estimates of equilibrium exchange rates tend to have wide margins of error. Moreover, it is inevitable that the evolution of economies in the euro area will give rise to the need for adjustments in the pattern of real exchange rates, reflecting, *inter alia*, their relative success in dealing with existing imbalances.⁶⁹ These considerations make it all the more important to pursue structural reforms vigorously so that more flexible labor and product markets can facilitate required changes in real exchange rates.

⁶⁸Real appreciation for one or two countries that do not have a large weight in the euro area would be more manageable.

⁶⁹The lagged consequences of German unification provide an illustration of such exchange rate dynamics. A theoretical analysis of the unification shock predicts an appreciation of the German real exchange rate in the short-to-medium term to help clear the goods market, with a weakening in Germany's net foreign asset position in the long run warranting more than a full reversal of the earlier appreciation, other things being equal.

The question arises of whether a preannouncement of rates would require any fundamental change in how monetary policy is conducted. One view is that a publicly stated commitment to intervene without limit on the last day of Stage 2 would be sufficient to induce supporting behavior in the markets in the preceding period. An advantage of this approach, it is argued, is that the monetary consequences of any intervention on the last day of Stage 2 would cancel out for the euro area as a whole; accordingly it should be possible to make the commitment to such a strategy credible without any liquidity impact for the euro area as a whole. However, the absence of any firm commitment to support the agreed exchange rates prior to the last day of Stage 2 might raise questions about the degree of commitment to the agreement, especially if there are important political uncertainties. Moreover, it would seem strange if the implications of intervention for monetary conditions were seen as an obstacle to more extensive support for the agreed bilateral conversion rates, as it would be expected that countries about to enter a monetary union should be able to agree on the stance of monetary policy.

This clearly suggests an approach in which monetary policy coordination is intensified immediately following the announcement of the bilateral conversion rates. This could be achieved through a pledge to intervene without limit on the part of all the central banks concerned so as to keep exchange rates close to the announced rates, an understanding among central banks on the overall stance of monetary policy, and a willingness if needed not to sterilize intervention. In most circumstances, a prompt and determined response by central banks to any sign of a market test should quickly convince markets of their commitment to the chosen rates. An even more transparent strategy would be to coordinate monetary policy explicitly through the ECB, once it is established. As well as providing a strong underpinning to the chosen bilateral rates, this would help smooth the change from separate monetary policies in Stage 2 to a single monetary policy in Stage 3.

External Effects of EMU

The effects of EMU on the world economy will depend on the external spillovers from its effects on economic performance in Europe and the extent to which the euro is used in international transactions. The latter will be influenced by the strength and stability of the new currency, as well as developments over the transition period among the currencies of potential EMU participants. The recent weakness in EU economies and the associated depreciation of their currencies against the dollar and the yen have lowered the demand for the exports of EU trading partners, while growth in EU net exports has supported the

EU's otherwise weak output and employment performance. These adverse spillovers of recent economic developments in Europe should dissipate as more solid growth resumes in the EU.

Characteristics of the Euro

Over the medium to longer term, several factors suggest a broader role and thus greater demand for the euro than for the current EU currencies, which are underrepresented in global transactions relative to the U.S. dollar despite the similar size of their economic bases (Table 12). Even though the United States and the EU both account for about 20 percent of world output and 15 percent of world exports, nearly half of global trade flows are priced in dollars compared with only about 30 percent in EU currencies. Global asset holdings, both private and public, are also disproportionately denominated in dollars, including half the stock of debt issued by developing countries and 37 percent of total international debt securities (equivalent to three times the value of debt issued in the United States itself), compared with shares of around 16 percent and 34 percent, respectively, for EU currencies. The dollar is held far more extensively than the EU currencies in official reserves and is the most frequently used currency in foreign exchange transactions, being involved in more than 40 percent of such transactions (after adjustment for the double-counting that arises from the use of two currencies in each transaction), compared with 35 percent for all EU currencies with intra-EU transactions included.⁷⁰

The larger economic base of the euro and the elimination of the transactions costs involved with multiple European exchange rates are likely to increase gradually the use of the new European currency as a unit of account in the denomination of trade flows, with particular growth in transactions between the euro area and developing and transition countries. Increased integration of Europe's financial markets, with the replacement of many currencies by one, should lower costs of financial transactions, narrow interest rate spreads, and expand the supply of euro-denominated assets as borrowers tap into the expanded European financial system. The euro is also likely to complement the dollar increasingly as a major reserve currency, partly for intervention purposes but also because its extensive use and the greater depth and breadth of markets in financial assets denominated in euro, com-

Table 12. United States, Japan, and the European Union: Relative Economic Size and Relative Use of Currencies

(In percent)

	United States	Japan	EU15
Relative economic size			
Shares of world GDP, 1996	20.7	8.0	20.4
Shares of world exports (ex-intra-EU), 1996	15.2	6.1	14.7
Relative use of currencies ¹			
World trade, 1992	48.0	5.0	31.0
World debt securities, September 1996	37.2	17.0	34.5
Developing country debt, end-1996	50.2	18.1	15.8
Global foreign exchange reserves, end-1995	56.4	7.1	25.8
Foreign exchange transactions, April 1995 ²	41.5	12.0	35.0

¹Shares denominated in currency (or currencies) of country (or EU).

²Shares adjusted for double-counting that arises from the fact that each transaction involves two currencies.

pared with the multiple European currencies of today, will provide incentives for countries to diversify their reserve holdings to be more in line with the currency composition of their trade and financial transactions; this will be particularly important for developing countries that now hold largely dollars. Within the EMU countries, present reserve holdings of partners' currencies will be converted into euro and thus no longer be reserves, although they will continue to be a counterpart of the monetary base. This will leave EMU countries with foreign exchange reserve holdings primarily in dollars, and these are likely to be reduced because trade within the euro area will no longer need the backing of international reserves, although any reductions will be subject to the approval of the ECB, which will examine them for consistency with its monetary policy.

These changes point to increased demand for the euro (relative to the overall demand for the corresponding pre-EMU currencies), but the associated shift in official and private portfolios away from dollars will represent only a modest portion of U.S. international assets and liabilities, which at the end of 1996 totaled \$3.35 trillion and \$4.13 trillion, respectively. The shift will also occur gradually, as market participants become familiar with the properties of the euro and as the incumbency advantages of other reserve and vehicle currencies linger. In fact, the effects of increased demand for the euro for portfolio purposes are likely to be less important than such influences as the stance of policy and differences in economic performance across countries that affect returns to investment and thus the attractiveness of holding different currencies. In particular, the mix and stance of fiscal and monetary policies in the euro area, together with

⁷⁰See Robert N. McCauley and William R. White, "The Euro and European Financial Markets"; Alessandro Prati and Garry J. Schinasi, "EMU and International Capital Markets: Structural Implications and Risks"; and Paul R. Masson and Bart G. Turtelboom, "Characteristics of the Euro, the Demand for Reserves, and Policy Coordination Under EMU," in *EMU and the International Monetary System*, ed. by Paul R. Masson, Thomas H. Krueger, and Bart G. Turtelboom (Washington: IMF, 1997).

the dynamism and efficiency of the participating economies, are likely to be the most important factors determining the strength or weakness of the new currency.

Independent of the question of the strength of the euro relative to current exchange rates, the issue arises of whether implementation of EMU may potentially lead to somewhat more pronounced movements in the exchange value of the euro in terms of the other major currencies—the dollar, in particular—than has been observed in the exchange rates of the deutsche mark and the currencies linked to it in the ERM vis-à-vis non-EU currencies. The answer is uncertain. On the one hand, to the extent that a given change in the effective exchange rate will have less of an impact on domestic prices under EMU than previously, policymakers at the ESCB may be less concerned about, and so less inclined to resist, exchange rate movements than have been pre-EMU policymakers. But on the other hand, a given change in the exchange rate of the euro vis-à-vis the dollar is likely to have about the same effect on prices in the euro area as a corresponding change in the dollar exchange rates of ERM currencies in the past, and the same applies for any other non-EMU currency. This suggests that policymakers' concerns about exchange rate fluctuations vis-à-vis the dollar or any other non-EMU currency may be broadly unchanged.

With respect to cyclical factors, the extent to which exchange rate fluctuations arise from cyclical divergences between the euro area and other economies will depend on the nature and magnitude of the shocks to which they are exposed. Business cycles have become broadly more similar across the EU countries in recent years, and increased trade and financial integration under EMU are likely to increase the importance of common factors across EU countries. But cyclical fluctuations do not appear to have become more synchronized between the EU and the major advanced economies outside Europe.⁷¹ Differences in economic conditions resulting either from asymmetric shocks or from unsynchronized business cycles and divergent policy stances across the three major currency regions may then be reflected in relatively pronounced exchange rate fluctuations. Such fluctuations should not in themselves be viewed as undesirable or destabilizing, provided they are not excessive; indeed, with integrated capital markets, changes in exchange rates

form an important part of the adjustment mechanism that equalizes real rates of return and allocates capital to the most productive uses across countries. As business cycles become more synchronized within the euro area, cyclical conditions in the area could have an increasingly important influence on other regions, through trade, financial conditions, and variations in the exchange rate, much as the United States has a significant influence on the world business cycle.⁷²

Implications for Advanced European Countries Outside the Euro Area

Given their close economic ties to EMU members, advanced European economies outside the euro area will derive important benefits in the medium to long run from a well managed EMU, but for the same reasons they will also be closely affected in the short term by how well fiscal and monetary policies in the euro area are adapted to the early challenges facing policymakers. The effects of EMU on these economies will depend on the initial size of the euro area, since a smaller EMU bloc will be more affected by external trade and thus less inwardly focused in policymaking, and also on whether they participate in ERM2.

As in the current ERM, participants in ERM2 will need to demonstrate their anti-inflation credentials by pursuing cautious monetary and fiscal policies if they are to sustain a stable exchange rate against the euro. For countries that seek to join EMU, there is likely to be particularly close market scrutiny, with sharp reactions in terms of increased interest rate differentials if developments such as fiscal policy slippages move a country farther from the convergence criteria needed to enter the euro area. Should the policy mix in the euro area become a point of tension in the initial phase of EMU (reflecting, for example, the inability of euro area policymakers to deal adequately with some of the policy challenges that were noted earlier), this may also tempt markets to challenge some of the parities in ERM2.

Countries that do not participate in ERM2 can, in general, be expected to continue with the current orientation of their monetary policies. Such a strategy would allow them flexibility to accommodate asymmetric shocks between themselves and the euro area, including during the changeover to the euro.⁷³ Some in this group with important financial markets (e.g., Switzerland, and also the United Kingdom if, as seems likely, it does not participate initially in Stage 3) may

⁷¹Antonio Fatas, "EMU: Countries or Regions? Lessons from the EMS Experience," *European Economic Review*, Vol. 41 (January 1997), pp. 1743–51, provides evidence on the growing importance of common shocks within EU countries, while Robin L. Lumsdaine and Eswar S. Prasad, "Identifying the Common Component in International Economic Fluctuations," NBER Working Paper No. 5984 (Cambridge, Massachusetts; National Bureau of Economic Research, April 1997), find that in the last two decades business cycles have not become more closely linked between Europe and the rest of the world.

⁷²Stefania Fabrizio and J. Humberto Lopez, "Domestic, Foreign or Common Shocks," IMF Working Paper 96/107 (September 1996), find that fluctuations in U.S. output account for more than 20 percent of the fluctuations in other countries' output.

⁷³See Torsten Persson and Guido Tabellini, "Monetary Cohabitation in Europe," *American Economic Review*, Vol. 86 (May 1996), pp. 111–16.

also face policy complications should uncertainties about the stance of policy in the euro area—including in the run-up to Stage 3—spark large capital flows into or out of the euro.⁷⁴

Implications for Other Advanced Economies

As large economies, the United States and Japan are likely to be affected only mildly by any change in the variability of the euro (as compared with the average variability of exchange rates vis-à-vis pre-EMU currencies), although of course their bilateral trade balances with EMU countries will depend on the bilateral dollar and yen exchange rates vis-à-vis the euro. Additional effects on these countries would arise from more extensive use of the euro as a reserve currency and denominator for trade and financial transactions, though it is not clear how important these effects would be. Most directly, a shift toward holdings of euro currency as a store of value would reduce seigniorage to the United States from U.S. currency holdings by non-U.S. residents. Foreign holdings of dollar bills are estimated to have accounted for more than half of the total \$375 billion stock of U.S. currency held outside banks at the end of 1995, and these foreign holdings provide annual savings of \$10–15 billion in interest on treasury securities.⁷⁵ Potentially more important, however, is that the desire of foreigners to hold dollar assets makes it easier for the United States to finance its balance of payments deficit; episodes in which even the hint of a sell-off of treasury security holdings by foreign investors have resulted in sharp increases in U.S. long-term interest rates clearly show the benefit to the United States derived from widespread acceptance of the dollar. The increased liquidity in global financial markets that may be expected to result from EMU, however, could lower borrowing costs for all countries, including the United States. The yen is not used nearly as widely as the dollar in international transactions, with dollar use predominating even in trade between Japan and its trade partners in Asia. The emergence of the euro may well hamper the development of the yen as an international currency, although the planned deregulation of the Japanese financial sector should increase the attractiveness of the yen for nonresidents.

Implications for Developing and Transition Countries

Movements in the values of the major currencies and the degree of variability of the euro's exchange

rate will affect developing and transition countries with economic ties to EMU countries. Possibly the largest effects will be felt in countries in central and eastern Europe and the CFA franc zone that, partly because of strong trade links, peg their currencies to EU currencies (and in future the euro), but pay contractual financial obligations on their debt in dollars or yen (Figure 23). With such a “mismatch,” a depreciation of the euro would lead to an increase in the domestic currency cost of debt service, probably without a fully offsetting benefit in the trade account. This is likely to be a particular concern for highly indebted countries that are constrained in their ability to diversify their liabilities because of limited access to international capital markets. For countries with access to private capital, EMU will provide a deeper market into which to float euro-denominated bonds, allowing countries that currently borrow heavily in dollars to reduce the mismatch between the currency of their exchange rate peg and their financial obligations.

Significant exchange rate variability of the euro may also lead to terms of trade volatility if changes in exchange rates lead to divergent effects on the domestic currency prices of a country's imports and exports. For example, an appreciation of the euro could possibly have an adverse effect on the terms of trade of countries that import manufactures from EU countries but export primary commodities to a more diversified group of partners; the domestic currency price of imports would rise and the price of exports would fall unless shifts in global supply and demand resulting from the exchange rate movement lead to offsetting changes in euro and dollar prices.⁷⁶ The incidence of mismatched trade flows is fairly small, however, as countries tend to have similar shares of imports and exports with the EU (Figure 24).

Transition countries in central and eastern Europe and the Baltics that peg their currencies to the deutsche mark or to a basket in which the deutsche mark has a large weight are likely to switch to the euro; for example, Bulgaria and Estonia have already stated this intention. Because the likely participants in EMU include these countries' principal partners for both imports and exports, the initial strength or weakness of the euro should have little effect on their terms of trade, although a weak euro might lead to higher prices for dollar-denominated energy imports and thus increase domestic price pressures just as it would for energy-importing EMU participants. The denomination of the outstanding external debt of central and eastern European countries is somewhat more diversified than that of their trade flows, with substantial obligations in both dollars and yen. Even so, fluctua-

⁷⁴For a discussion of the implications of such capital movements, see IMF, *Switzerland—Selected Issues and Statistical Appendix*, IMF Staff Country Report No. 97/18 (March 1997).

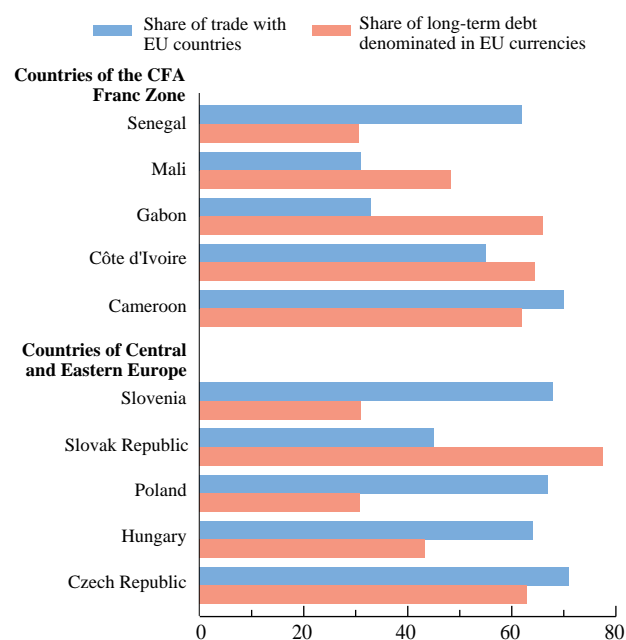
⁷⁵See Richard D. Porter and Ruth A. Judson, “The Location of U.S. Currency: How Much of It Is Abroad?” *Federal Reserve Bulletin*, Vol. 82 (October 1996), pp. 883–903.

⁷⁶For manufactured goods, however, there is substantial evidence of “pricing to market,” so that domestic currency prices of these imports would be expected to vary less markedly than the exchange rate.

Figure 23. Selected Developing and Transition Countries: Trade and Financial Links with the European Union

(In percent)

Countries in Africa and central and eastern Europe that peg their exchange rates to European currencies typically have close trade links with the European Union (EU), but service debt denominated in both EU and non-EU currencies.



tions in the euro are unlikely to trigger debt-service difficulties since the affected countries have continuing access to international financial markets and generally low-to-moderate levels of external indebtedness. Hungary is an exception, with more substantial external debt, but it has been successful in reducing its exposure to currency fluctuations by using forward currency contracts to match its debt-servicing requirements with the composition of its currency basket. In the long run, the transition economies of central and eastern European and the Baltics will unambiguously benefit from a successful EMU—both from higher growth in their principal export markets and from lower real interest rates that will facilitate the financing of their continuing economic restructuring. Continued low inflation in the EMU countries will further provide a sound goal for the transition countries to aim for in order to fulfill their aspirations of acceding to the EU.

The countries of the CFA franc zone also maintain fairly close trade links with the EU, particularly France, which guarantees the free convertibility of the CFA franc at the agreed peg. In contrast to the transition countries, however, significant shares of CFA franc zone exports and imports are from countries outside the EU, so that even with a seamless transition from the French franc to the euro, these countries' terms of trade will continue to vary with exchange rate movements. Moreover, exchange rate fluctuations would have potentially serious repercussions on their capacity to service debt: a substantial portion of their external debt is denominated in dollars and several of these countries are highly indebted and likely to have difficulty obtaining access to international financial markets. Although the effects on trade and indebtedness work in opposite directions, with, for example, a depreciating euro providing an improvement in the terms of trade but an increase in the burden of dollar-denominated debts, the substantially greater magnitude of debt burdens relative to trade flows suggests that the latter effect will dominate.

Institutional Implications of EMU

The unavoidable uncertainty following the introduction of the new currency and the possibility of large movements in exchange rates may lead to greater calls for international policy coordination between EMU and other countries, particularly to deal with any perceived misalignment of exchange rates. Even so, a large measure of caution is in order, since experience shows that it is difficult to distinguish normal, albeit relatively large, currency movements from misalignments that would call for concerted action.

The response to any such misalignment might include altering the stance of both monetary and fiscal policies in the major economies. The central role of the ECB in determining EMU monetary policy will

enable countries in the euro area to speak in unison (rather than adding a competing voice) and enable rapid and effective responses. To ensure that fiscal policies complement monetary policy in providing an environment consistent with medium-term stability, it may be desirable to enhance the mechanisms for international policy coordination, including at the IMF. This underlines the importance of putting in place mechanisms and institutions to improve the coordination of fiscal policies among the countries participating in the euro area. This would give the authorities of the euro area greater scope for changing the policy mix, which should help correct misalignments in the exchange value of the euro.

The changes in the international monetary system resulting from EMU will call for the IMF's surveillance of euro area economies to be adapted in a number of ways. Under the IMF's Articles of Agreement, Fund membership is exercised by member states, and thus consultations under Article IV will continue to be held with individual member countries. But following the efforts that have already been made to strengthen the IMF's regional surveillance, these will need to be complemented by discussions with the institutions of the euro area, such as the ECB and other appropriate counterparties, in order to address issues no longer in the purview of national authorities.

Creating a single European currency has a number of implications for the IMF's financial operations, including changes in the composition and valuation of the SDR, in the media used in Fund operations, and the interpretation of EMU members' balance of payments and reserve positions. These issues will be addressed by the IMF Executive Board over the coming year.

Reaping the Benefits of EMU: Importance of Fiscal and Labor Market Reforms

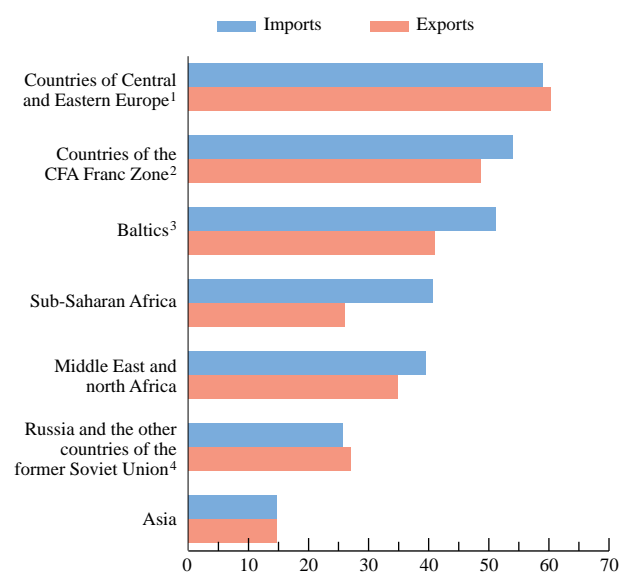
While monetary union in Europe will be a development of great importance for the participating countries and for the world economy, the fiscal and structural policies pursued by the countries in the euro area will continue to play a critical role in their economic performance and its effects on the rest of the world.

This section examines the implications of alternative fiscal and structural policy scenarios in the euro area, using a version of the Fund's multicountry econometric model (MULTIMOD). In one scenario (scenario 1), EMU is assumed to serve as a catalyst for favorable change in both fiscal and structural policies. On the fiscal side, budget consolidation goes beyond the adjustment assumed in the current *World Economic Outlook* projections—with an additional reduction of government expenditure equivalent to 2 percent of GDP over the medium term—coming

Figure 24. Selected Developing and Transition Countries: Shares of Trade with the European Union

(In percent of total trade)

There is generally little evidence of a “mismatch” in countries' trade links.



¹Czech Republic, Hungary, Poland, Slovak Republic, and Slovenia.

²Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Mali, Niger, Senegal, and Togo.

³Estonia, Latvia, and Lithuania.

⁴Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

closer to the policy intentions often expressed by policymakers in EU countries.⁷⁷ On the structural side, it is assumed that product market liberalization, reinforced by efficiency gains resulting from the introduction of a common currency, leads to a rise in total factor productivity of $\frac{1}{2}$ of 1 percent, while significant reforms of labor markets lead to greater real wage flexibility and a reduction in the natural rate of unemployment of 2 percentage points, to around 7 percent.

A second, "reform fatigue" scenario (scenario 2) illustrates the implications of lagging structural reforms: here, real wage flexibility remains low and the natural rate of unemployment gradually increases to about the level of actual unemployment in the EU today. It is also assumed in this scenario that national governments attempt to offset the effects on output and employment of deteriorating labor market conditions by additional government spending, although the room for such expenditure programs is circumscribed by the Stability and Growth Pact. It is assumed in both scenarios that the pact will be strictly enforced and that all EU member countries will participate in EMU from the outset and according to the present timetable; the policy assumptions underlying scenarios 1 and 2 diverge from the year 2000. The scenarios are constructed as deviations from a hypothetical baseline projection based on an extrapolation of underlying trends observed in or estimated from the 1990s (see Annex II for further details).

When EMU serves as a catalyst for reform (scenario 1), the level of output in EMU member countries rises by almost 3 percent relative to the baseline over the medium term (see Table 13). This benefits the fiscal position, and, when account is also taken of the assumed reduction in government expenditure, the fiscal deficit in 2003 is about 2 percent of GDP lower than in the baseline. This creates room for a declining tax burden over the medium term, with government debt lower by $1\frac{1}{2}$ percent of GDP by 2010. The resulting rise in government saving is accompanied by higher private saving as potential output and households' wealth increase. The rise in national saving in the euro area outweighs strong growth in investment demand so that the external current account improves over the first decade of reforms. The effect on other industrial countries is quite small. Over the medium term, their output increases somewhat, benefiting from lower world interest rates on account of higher saving in the euro area and the world economy. The positive output effect for developing countries is somewhat larger than for other industrial countries and reaches $\frac{1}{4}$ of 1 percent over the medium term; these countries as a group benefit not only from lower world interest rates, but also from a demand-pull effect as the stronger

growth performance in Europe is accompanied by higher demand for their products.

The economic outlook for the euro area is likely to be much less favorable if structural reform and fiscal consolidation fall short of current expectations (scenario 2). With inflexible labor markets and rising structural unemployment, the level of GDP is estimated to decline by $2\frac{1}{2}$ percent relative to baseline over the medium term (or by more than 5 percent compared with the case of accelerated reform in scenario 1). This contributes to a worsening of the fiscal deficit by $1\frac{1}{4}$ percent of GDP by 2010, with the government debt-to-GDP ratio rising by 10 percentage points. The worsening economic outlook and fiscal position are likely to result in a rise of the risk premium on euro-denominated assets, and this is assumed to be on the order of 40 basis points in the simulation exercise. A decline in household and government saving is more than offset in this scenario by a sharp fall in investment, and the external current and trade accounts improve by some $\frac{1}{4}$ of 1 percent of GDP by 2010. The counterpart is largely a deterioration of the trade balance in other industrial countries. The overall output of other industrial countries is nevertheless slightly higher than in the baseline, primarily reflecting a decline in interest rates in these countries. In contrast to scenario 1, however, where the decline in interest rates in the other industrial countries reflects a rise in public and private saving in the euro area, the decline in interest rates here is confined to the other industrial countries and occurs because the increase in the risk premium of the euro implicitly lowers risk premiums on other currencies. The reduction in activity in industrial countries and the consequent lower demand for imports from developing countries leads to some reduction in output in the latter group, although the spillover effects are again quite small.

The different outcomes under scenarios 1 and 2 also have important implications for the euro area's ability to absorb adverse shocks, such as the demand and supply shocks that typically characterize the business cycle. First, fiscal policy will be severely constrained if the deficit remains close to the limits imposed under the Stability and Growth Pact. Under the "reform fatigue" scenario 2, this not only limits the authorities' ability to allow the automatic stabilizers to work during a cyclical downturn but can even require procyclical fiscal adjustments to meet the deficit limits (see Annex II). These constraints are unlikely to become binding with the stronger reforms undertaken in scenario 1. Second, apart from fiscal constraints, labor market reforms can also play a central role in the ability of the euro area to cope with adverse shocks, and limit potential negative spillover effects to other regions. If reforms succeed in making labor markets more flexible, as envisaged in scenario 1, adverse shocks would tend to impose smaller economic costs (in terms of output losses and higher unemployment)

⁷⁷The *World Economic Outlook* baseline projections assume that structural fiscal balances remain broadly unchanged after 1998.

Table 13. Implications of EMU for Europe and the Rest of the World—Simulation Results*(Deviations from baseline, in percent, except when indicated otherwise)¹*

	2000	2001	2002	2003	2010
Scenario 1: EMU with Additional Fiscal Consolidation and Labor Market Reforms					
EMU members²					
Real GDP	0.2	0.9	1.0	1.1	2.9
GDP deflator	-0.3	-0.7	-1.1	-1.4	-1.9
Long-term real interest rate	0.1	-0.1	-0.3	-0.4	—
Unemployment rate	-0.2	-0.4	-0.6	-0.8	-2.0
General government balance (in percent of GDP)	0.4	0.9	1.5	2.1	0.8
Net revenue	—	—	0.1	0.2	-1.1
Expenditure	-0.4	-0.9	-1.4	-1.9	-1.9
General government debt (in percent of GDP)	-0.4	-1.4	-2.7	-4.5	-12.6
Trade balance (in billions of U.S. dollars)	-3.5	13.8	22.8	31.6	27.9
Non-European G-7³					
Real GDP	-0.1	—	—	0.1	0.1
Trade balance (in billions of U.S. dollars)	-0.6	-16.6	-25.5	-31.5	-31.9
Other industrial countries⁴					
Real GDP	-0.1	0.1	0.1	—	0.2
Trade balance (in billions of U.S. dollars)	-1.0	-1.9	-2.6	-3.5	-1.7
Developing countries⁵					
Real GDP	—	0.1	0.2	0.2	0.3
Trade balance (in billions of U.S. dollars)	5.1	4.7	5.3	3.4	5.7
Scenario 2: EMU with Neither Additional Fiscal Consolidation Nor Labor Market Reforms					
EMU members²					
Real GDP	0.1	-0.3	-0.6	-0.9	-2.5
GDP deflator	0.1	0.3	0.6	0.9	2.3
Long-term real interest rate	0.2	0.3	0.4	0.5	0.5
Unemployment rate	0.2	0.4	0.7	0.9	2.0
General government balance (in percent of GDP)	-0.2	-0.5	-0.7	-0.9	-1.3
Net revenue	—	-0.1	-0.2	-0.3	-0.7
Expenditure	0.2	0.4	0.5	0.6	0.6
General government debt (in percent of GDP)	0.1	0.7	1.4	2.3	9.8
Trade balance (in billions of U.S. dollars)	-1.7	22.1	31.7	38.8	67.3
Non-European G-7³					
Real GDP	-0.1	—	—	0.1	0.1
Trade balance (in billions of U.S. dollars)	-2.6	-22.6	-29.5	-33.7	-57.5
Other industrial countries⁴					
Real GDP	—	-0.1	—	—	0.1
Trade balance (in billions of U.S. dollars)	-0.8	-2.4	-3.1	-3.6	-6.1
Developing countries⁵					
Real GDP	—	—	—	-0.1	-0.2
Trade balance (in billions of U.S. dollars)	5.1	2.9	0.9	-1.5	-3.7

¹Baseline is based on current World Economic Outlook database, with shocks starting in 2000. Adherence to the Stability and Growth Pact is assumed in both scenarios.

²It is assumed that all current EU member countries participate in EMU from the start.

³The United States, Canada, and Japan.

⁴Australia, New Zealand, Norway, and Switzerland.

⁵Rest of the world excluding transition economies.

within the euro area as well as in the rest of the world economy. The effects would also be less persistent, with the economy returning relatively quickly to its longer-run potential growth path.

The scenarios illustrate the critical role of the fiscal and structural policies pursued in the euro area for the success of EMU. To the extent that EMU becomes a catalyst for economic reform, not only in the fiscal

area, but also in labor and product markets, there is likely to be substantial benefits for participating countries, with positive, though typically not very large, spillover effects on the rest of the world economy. But if EMU is not accompanied by further progress with structural reforms and fiscal consolidation, there are likely to be serious consequences for Europe, and other regions are likely to bear part of the cost.