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July 10, 1989

To: Members of the Executive Board

From: The Secretary

Subject: The European Monetary System in the Context of the  
Integration of European Financial Markets

There is attached for consideration by the Executive Directors a paper on the European Monetary System in the context of the integration of European financial markets rewritten and improved in the light of the discussions at Executive Board Meetings 89/9 and 89/10 on February 1, 1989.

It would be appreciated if Directors who have further comments or suggestions could provide them to Mr. Mathieson (ext. 7662) or Mr. Folkerts-Landau (ext. 7665) by Wednesday, July 26, 1989. As agreed, it is proposed to proceed with publication of this paper, after incorporating any further observations by Executive Directors.

In the absence of an objection from an Executive Director by noon on Friday, July 21, 1989, the proposal to publish this paper will be deemed approved by the Executive Board, and it will be so recorded in the minutes of the next meeting thereafter.

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INTERNATIONAL MONETARY FUND

Research Department

The European Monetary System in the Context of the  
Integration of European Financial Markets

Prepared by the Research Department and  
the European Department

(In consultation with other departments)

Approved by Jacob A. Frenkel and Massimo Russo

July 6, 1989

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## I. Introduction

In 1979 the European Monetary System (EMS) was established to create a "zone of monetary stability" within the European Community (EC). This zone of stability was to be achieved by means of close monetary cooperation and coordinated exchange rate management. In particular, a regime of fixed, though adjustable, exchange rates between the countries participating in the exchange rate mechanism of the EMS 1/ was combined with a policy of flexible exchange rates vis-à-vis the other major currencies. The exchange rate mechanism (ERM) was to be sustained through the provision of intervention resources and, more fundamentally, through coordinated monetary policies.

The EMS is now widely regarded as having functioned satisfactorily for nearly a decade. In retrospect, skeptics underestimated the ability of the EMS to meet the different circumstances of members; the potential for combining rules with discretion in the operation of the ERM; and the cohesion and commitment attributable to larger integration objectives within the EC. The EMS' first decade has been accompanied by a reduction in the variability of nominal and real exchange rates among the ERM currencies, by significant progress in the coordination of monetary policy, by a reduction of inflation differentials between ERM countries (as well as in the overall level of inflation), and by lower interest rate differentials between these countries. At the same time, there has been no marked tendency for convergence of fiscal policies. More recently, concerns have been expressed that the EMS has operated "asymmetrically"--allegedly both shifting the adjustment burden towards weak-currency countries and imparting a "deflationary bias" to overall EMS growth performance. 2/

The passage of the 1987 Single European Act, which calls for the creation of "an area without frontiers in which the free movement of goods, persons, services and capital is ensured," has confronted the EMS with new opportunities and challenges. The opportunities arise from the potential gains in economic efficiency and economies-of-scale associated with creation of the largest internal market (in terms of GNP) in the world. 3/ The challenges derive from the constraints that a more closely integrated capital market can place on member countries' abilities to

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1/ In this paper, the term EMS is used when reference is made to the European Monetary System as a whole, whereas the term ERM specifically refers to the functioning of the exchange rate mechanism or its member countries.

2/ For evidence on the "asymmetric" operation of the EMS, see Giavazzi and Giovannini (1988a) and Russo and Tullio (1988).

3/ The welfare gains arising with the completion of the internal market have been estimated to fall between 4-6 percent of total national income. See Cecchini (1988) and European Economy (1988).

manage monetary, fiscal, and exchange rate policies. 1/ In this connection, the EMS faces the well-known dictum in international economics that it is possible to achieve simultaneously only two of the following three objectives: fixed exchange rates, independent monetary policy, and open capital markets. 2/ 3/

These issues are of critical importance to members of the EMS and are also of concern to the international economy as a whole. For example, if the single market program 4/ leads to significant efficiency gains within the EC, then the resulting income growth cannot help but have an effect on trade flows, though the magnitude of this effect will be conditioned by the degree of external protection maintained by the EC. Similarly, the integration and expansion of European financial markets may further increase the degree of competition in international financial markets, which could have important effects on the cost and availability of funding for all borrowers. Likewise, any broadening of the use of the European Currency Unit (ECU) as an official reserve asset and in private capital markets could have implications for the functioning of the international reserve system and international financial markets. Finally, the future development of the EMS may provide valuable insights into the feasibility of maintaining a system of fixed but adjustable exchange rates when financial markets are highly integrated.

The next five sections of this paper provide a survey of some issues concerning the evolution of the EMS in the context of increasingly integrated financial markets. Section II briefly reviews the objectives of the EMS, its institutional structure, its perceived impact on key macroeconomic variables, and some criticisms of its current arrangements. Section III describes the "1992 Program" to unify, inter alia, financial markets and then discusses the pressures that a more integrated financial market places on country authorities and on financial firms themselves. Section IV considers the factors that will influence the ability of the

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1/ Another key challenge is to ensure that efficiency gains within the EC are not accompanied by significant "trade diversion" effects with respect to non-EC countries. This issue is discussed in Section V.

2/ In practice, the EMS involves a trade-off between fixed, though adjustable, exchange rates, constrained monetary policies, and some actual or potential resort to capital controls.

3/ Governments of all member states have recognized that the Internal Market Programme calls for further progress in coordination. Although such progress is not at all inconceivable within the given institutional framework, the European Council of June 1988 confirmed again the objective of Economic and Monetary Union, and mandated a group of experts under the chairmanship of President Delors to analyze the issues and to propose concrete steps towards EMU. This expert group has just completed its report, which will be submitted to the European Council of Madrid next June.

4/ This single market program refers to the measures that will be undertaken to complete the integration of internal markets.

EMS to achieve and maintain a zone of monetary stability, including the choice of a nominal anchor and the arrangements adopted for managing macroeconomic and exchange rate policies under greater interdependence. Section V turns to the implications of European financial and monetary integration for the role of the ECU in the international monetary system and for the EC's trade and financial relationships with the rest of the world. Finally, a summary is presented in Section VI. A glossary of technical terms and of important EMS institutional arrangements appears as an appendix.

## II. Institutional Structure and Historical Development of the EMS

### 1. Objectives of EMS

The objectives of the EMS were identified in discussions at the European Council during the period leading up to the establishment of the system in early 1979. The key objective was the creation of a "zone of monetary stability in Europe" by means of close monetary cooperation and coordinated exchange rate management. The original plan also contemplated the establishment of the ECU as a reserve asset and means of settlement and, for a second stage, the creation of a European Monetary Fund.

### 2. Institutional arrangements

The institutional arrangements of the EMS include: an exchange rate mechanism (ERM) cum rules of intervention; a currency-basket, the ECU, that serves, inter alia, as numeraire of the system; and several credit facilities.

The EMS is based on an exchange rate mechanism of fixed, though adjustable, exchange rates. Each participating currency has a central rate relative to the ECU. A grid of bilateral central rates with margins of fluctuation of  $\pm 2.25$  percent (6 percent for Italy), has been established. <sup>1/</sup> At these margins, participating central banks are obliged to intervene in unlimited amounts. In principle, intervention is to take place in ERM currencies, although intervention is also allowed in outside currencies (mainly U.S. dollars).

When a currency crosses a "threshold of divergence," this results in a presumption that corrective measures will be taken, inter alia, exchange

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<sup>1/</sup> Countries currently participating in the ERM are: Belgium-Luxembourg, Denmark, France, the Federal Republic of Germany, Ireland, Italy, and the Netherlands. Although the United Kingdom and Greece are not participants in the ERM, their currencies have been assigned a notional central rate. Countries that did not participate in the common margins arrangement (the "snake") in December 1978 were given the option of choosing a wider margin of up to 6 percent; Italy availed itself of this opportunity; see Ungerer, et al. (1983, 1986).

market intervention and/or policy responses. Such a threshold has been set at 75 percent of the maximum divergence spread. The threshold is calculated on the basis of the "divergence indicator," 1/ which supplements the grid of bilateral central rates and fluctuation margins. The divergence indicator measures the position of each currency against the weighted-average movement of the currencies included in the ECU basket. In the case of sustained exchange rate tensions (collectively judged to reflect fundamental divergences in the economic performance of the members concerned), realignment of some or all central rate relationships is permitted--subject to mutual agreement by a common procedure which will comprise all countries participating in the ERM and the Commission.

The ECU, which is a basket consisting of specified amounts of each currency, 2/ fulfills a number of functions within the EMS. It serves as the numeraire of the system and of the ERM, the reference point for the operation of the divergence indicator, the unit of denomination for intervention debts and for credit facilities, and as a means of settlement of intervention debts among central banks. 3/

A "very short-term financing facility" (VSTF), consisting of a reciprocal cash facility among ERM-participating central banks, was created to facilitate compulsory intervention. Access to this facility for purposes of intervention was made automatic and unlimited at the outer ranges of the fluctuation margins. In addition, there are other credit facilities--all of them in existence before the establishment of the EMS--which are available to all members of the EC. The short-term monetary support (STMS) is a quasi-automatic facility that provides short-term finance for temporary balance of payments deficits. Under the STMS, each member is assigned a creditor quota that determines the extent of support it is expected to provide and a debtor quota specifying the amount of assistance it can obtain. In particular circumstances, creditor and debtor quotas may be substantially increased ("rallonges"). A medium-term financial support facility (MTFS) is also available for balance of payments assistance, but the use of its resources is subject to conditionality. 4/

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1/ This concept is defined in the glossary.

2/ Of the EC currencies, the Spanish peseta and the Portuguese escudo are at present not included in the basket.

3/ Central banks participating in the EMS received at the outset of the system an initial supply of ECUs against deposit of 20 percent of their gold and gross U.S. dollar reserves in the European Monetary Cooperation Fund (EMCF). The United Kingdom, Greece, Portugal, and Spain are not participants in the ERM, but they have become parties to the agreement of central banks laying down the operating procedures for the EMS in which they participate.

4/ Since June 1988, the MTFS has been amalgamated with the Community Loan mechanism to form an integrated medium term financial assistance mechanism.

### 3. Impact on economic performance

Evaluations of the effect of the EMS on economic performance have focused on four areas: (1) exchange rate variability; (2) policy coordination; (3) convergence of economic conditions; and (4) asymmetries in adjustment burdens (including the existence of a deflationary bias).

Empirical assessments of the impact of the ERM on exchange rate variability have generally pointed to a reduction in the volatility of intra-ERM nominal and real exchange rates. 1/ Some observers have argued that this reduction in exchange rate variability has been obtained at the cost of increased variability in interest rates. Recent analyses suggest, however, that ERM arrangements have also helped reduce speculative movements, thereby making sharp changes in short-term interest rates less necessary. 2/ There has also been some evidence that the authorities' willingness to adjust intra-ERM exchange rates and policies has led to smaller "misalignments" of real exchange rates for EMS currencies than for major non-EMS currencies. 3/ During the first ten years, there have been realignments of the central rate grid of the ERM on 12 occasions. The seventh ERM realignment (in March 1983) provided an important demonstration of the authorities' willingness to adjust both policies and the central rate structure to avoid serious misalignment. Italy decided to seek only partial adjustment of its central rate for past inflation differentials vis-à-vis Germany, and domestic macroeconomic policies were adjusted so as to place a greater degree of emphasis on cost/price stability. In addition to a change in the central rate for its currency, France abandoned its expansionary effort, pursued since 1981, and adopted a comprehensive stabilization program, later supported by EC financial assistance.

Available evidence also points to significant progress in the coordination of monetary policies among countries in the ERM. Such coordination has been part and parcel of the trend--also visible outside the EMS--toward tighter monetary and credit policies, so as to bring down inflation (see below). Coordination of fiscal policies has shown notably less progress. Specifically, there have continued to be large fiscal imbalances in some ERM countries, and the dispersion of fiscal imbalances (measured relative to GNP) has increased somewhat. 4/

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1/ See Ungerer, et al. (1983 and 1986), Commission of the European Communities (1982), Padoa-Schioppa (1985), Rogoff (1985), Taylor and Artis (1988), and Guitian, et al. (1988).

2/ See Taylor and Artis (1988). For an analytical framework, see Krugman (1988), and Flood and Hodrick (1986).

3/ A misalignment refers to a deviation of the actual real exchange rate from its equilibrium level. See de Grauwe and Verfaillie (1987) for estimates of misalignment for EMS versus non-EMS currencies.

4/ Tanzi and Ter-Minassian (1987).

The convergence of economic conditions has been most marked in the area of price performance. Inflation differentials for countries that have been a part of the ERM have tended to narrow significantly in the period between the mid-1970s and the late 1980s. Moreover, some studies suggest that the output cost of reducing inflation has been lower for ERM countries than for countries outside the ERM. 1/ In addition, nominal interest rate differentials between ERM countries have narrowed, and some studies also point to a decline in real interest rate variability.

Still, the EMS has not been without its critics. One recurring theme is that the EMS has operated asymmetrically in the formulation of policies--especially monetary policy, which has been dominated by the stance adopted in one of the least inflation-prone members of the system, especially, in the Federal Republic of Germany. An implication of making German monetary policy the system's nominal anchor is that adjustments in monetary policy fall mainly on other EMS members. 2/ While some observers saw such hegemony as desirable when the overriding priority in virtually all EMS countries was to reduce inflation, they see a more "symmetric" structure as appropriate for the future evolution of the EMS, now that inflation has been reduced significantly. 3/

The call for improved monetary policy coordination has indeed already led to some adjustments in EMS arrangements. In September 1987, for example, deliberations at Basle and Nyborg resulted in the VSTF being made available to a certain extent for the financing of intramarginal intervention. 4/ The Basle/Nyborg reforms were tested in late 1987 when the Banque de France, in close cooperation with the German authorities, defended the franc with exchange market intervention supported by intramarginal use of the VSTF, as well as with bilateral borrowings from the Bundesbank. The margins of fluctuation were also used actively (allowing substantial downward movement of the franc vis-à-vis the deutsche mark, without going to the fluctuation limit). In addition the

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1/ Giavazzi and Giovannini (1988a, 1988b). This finding should not be taken too far; in particular, there is no presumption, that as a rule, fixed exchange rates make the output cost of reducing inflation lower than do flexible exchange rates.

2/ This has been referred to as the "N-1 problem" which represents the idea that, in any system of fixed exchange rates with N currencies, one country should act passively about its exchange rate and direct its monetary policy to tie down prices (i.e., act as a nominal anchor for the system).

3/ See Padoa-Schioppa (1987).

4/ Intramarginal intervention occurs when a central bank buys (sells) foreign exchange when its exchange rate is inside the ERM margins of fluctuation. Before the Basle/Nyborg agreement, the VSTF was not generally available for intramarginal intervention. The use of the VSTF was subject to agreement by the central banks concerned; otherwise intramarginal intervention had to be financed through bilateral credits outside the VSTF. It is now available subject to certain qualifications.

Banque de France raised official interest rates sharply, while the Bundesbank reduced its Lombard interest rate. In the end, speculative pressures were overcome, short-term capital flowed back to France, and, by February 1988, the Banque de France had not only repaid its intervention debts but was also actively augmenting its deutsche mark holdings through purchases in the market.

A related concern is that the EMS has imparted a deflationary bias to the formulation and implementation of domestic macroeconomic policies. 1/ Given both the high degree of trade interdependence of European economies and the limits that the ERM imposes on exchange rate movements, it has been suggested, in particular, that no country acting on its own has an incentive to expand demand using fiscal policy, since much of the benefits (e.g., increased employment) would accrue to neighboring countries, while the costs (e.g., a deterioration of its balance of payments) would be incurred solely by that country. 2/ Some have therefore argued that coordinated, expansionary fiscal policies are the answer to improved European economic performance; they have also proposed a "two-handed" approach that marries coordinated fiscal expansion with structural supply-side measures. 3/

### III. The "1992 Program" to Unify EC Financial Markets

#### 1. The single market program

In June 1985, EC heads of governments approved a White Paper, put forward by the EC Commission, which contained some 300 measures designed to further unify EC markets. These measures fell into three principal areas: (1) the liberalization of international capital movements; (2) the abolition of cross-border restrictions on the provision of financial services; and (3) the removal of obstructions to the free movement of goods and services. The Single European Act of 1987 which amends the treaties establishing the European Communities, has, inter alia, greatly facilitated the process of turning these 300 proposed measures into binding legislation. In particular, the Single European Act adopted qualified majority rule in many areas of decision-making and the principle of mutual recognition. The former meant that many Commission proposals no longer required a unanimous vote of the EC Council of Ministers for passage, while the latter empowered the Council to determine that the regulations in one member country are equivalent to those in another country after a minimal amount of cross-country harmonization of regulations has been achieved. To date, about one-third of the program of

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1/ See Giavazzi and Giovannini (1988a).

2/ It should be recognized that this conclusion is quite model-specific; generally, it is difficult to gauge the internal and external effects of fiscal policy actions without specifying the nature of that action; see Frenkel and Razin (1987).

3/ See Blanchard, et al. (1986).

the White Paper has been approved by the Council. Since fiscal measures still require a unanimous vote of the Council for adoption, little progress has yet been made in fiscal harmonization.

The Commission's proposals for the liberalization of capital movements were presented to the EC Council of Ministers in November 1987. Following a supportive opinion of the European Parliament, the EC Council of Ministers adopted a new directive on June 24, 1988. The directive builds on the liberalization of capital movements and integration of financial markets which have been achieved in recent years. All capital transactions (including those with a term of less than one year) will be fully liberalized. In addition, the directive is based on the "erga omnes" principle, which extends the liberalization of capital movements not only to EC residents but in principle also to economic agents on a worldwide basis. However, it has been noted that this principle would not prejudice application of EC member countries' domestic rules or EC law to third countries, particularly as regards application of reciprocal conditions. EC member countries shall take the measures necessary to comply with this directive no later than July 1, 1990, with longer transition periods for Greece, Ireland, Portugal, and Spain. Belgium and Luxembourg have undertaken to abolish their dual-exchange market by end-1992.

It should be noted that the liberalization of capital movements is subject to a new safeguard clause. If short-term capital movements should disturb the conduct of a member's monetary and exchange rate policies, it may impose restrictions on most categories of those, i.e., short-term capital movements, for a maximum period of six months. In the case of exceptional exchange market disturbances, the country must inform the Commission and other EC members, but their advance approval is not required. 1/ Where the disturbing capital movements originate from third (non-EC) countries and affect a number of member countries, member countries shall consult with each other about the measures to be taken, including a possible collective response by all EC countries.

The deregulation of financial activity, that is the removal of cross-border restrictions on the provisions of financial services, has concentrated on three areas: banking, securities, and insurance. The draft Second Banking Directive would allow banks to conduct business anywhere in the EC under the rules prevailing in their home country. Banks operating throughout the EC would be largely licensed, regulated, and supervised by their home country. The Commission has proposed to harmonize essential prudential regulation, such as that relating to capital adequacy, to large exposures, and to closure rules, prior to the

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1/ The Commission still has the authority to decide whether the member may continue to apply its capital controls or whether it should amend or abolish them.

implementation of the Directive. 1/ A proposed Investment Services Directive provides for a harmonized regulatory structure, based on home country control, for financial firms other than banks. As in banking, securities firms would be able to open branches and market an agreed list of services anywhere in the EC.

## 2. Implications of increased financial integration

The implications of greater financial integration within the EC are potentially both far-ranging and significant. In this subsection, the focus is on: (1) competition, allocative efficiency, and evolution within the financial sector; (2) currency substitution and the stability of demand for monetary aggregates; (3) the extent and implications of reduced monetary interdependence (including some fiscal repercussions); (4) the operation of fiscal policy; and (5) the ability to deal with country-specific shocks.

The gains that could arise from increased competition and better allocative efficiency can be significant. These efficiency gains arise because capital controls and restrictions on the cross-border activities of financial institutions drive a wedge between risk-adjusted real returns to investment and saving in different countries. In this sense, one should look for 1992 to promote higher real returns to savers, smaller spreads between borrowing and lending rates, a lower cost of capital to firms, and better hedging possibilities against a variety of risks--in short, to a better allocation of saving and investment. Moreover, the significant variation in the prices of financial services from country-to-country within the EC (see Chart 1) suggests that the scope for such efficiency gains could be substantial. 2/

As the liberalization and integration of EC financial markets proceeds, it is to be expected that the structure of financial markets will evolve with it. In particular, the existing variation in retail prices of financial services in different national markets provides considerable incentives for cross-border expansion of financial institutions, as do the prospects for economies of scale and for greater geographic diversification. However, the existing extensive branch banking systems in most EC countries make the establishment of additional retail branch networks less likely. By contrast, EC wholesale financial markets have tended to be more competitive and thus represent a smaller inducement for cross-border expansion of national institutions. The export of financial services without establishing a physical presence in the local market can be therefore expected to play an important role in wholesale financial markets. The merger and acquisition of foreign

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1/ The Commission's proposed risk-weighted capital adequacy requirements are near-equivalent to those which were recently adopted by the Committee for Banking Regulation and Supervisory Practices (the Cooke Committee) of the BIS and are being adopted by the G-10 countries.

2/ Also see Cecchini (1988).

institutions will likely go forward, but the ownership structure of financial institutions in some countries may slow cross-border acquisition. In some countries (e.g., Italy, France, and the Federal Republic of Germany), many mid-sized banks are owned by the central or provincial governments.

The relative importance of banking and securities markets in the EC economies could well undergo further change. In particular, the recent pattern of more rapid expansion of activity in securities markets than in banking markets is likely to continue. Access to primary securities markets for many investors should be facilitated by increased cross-border business with securities firms from countries with well-developed securities markets. This in turn may force more frequent adjustments of administered interest rates to reflect movements in market interest rates, especially in retail markets.

Increased financial integration will probably enhance the ability of EC residents to switch among monetary assets denominated in different currencies, or more generally, to diversify the currency and maturity composition of their financial portfolios. While large EC financial and nonfinancial institutions have for some time adjusted their portfolio holdings across markets and currencies in anticipation of exchange rate and interest rate movements, the removal of the remaining constraints will facilitate similar portfolio adjustments by smaller institutions and households. This creates the scope for larger gross capital flows and asset redenomination when exchange rates are anticipated to change.

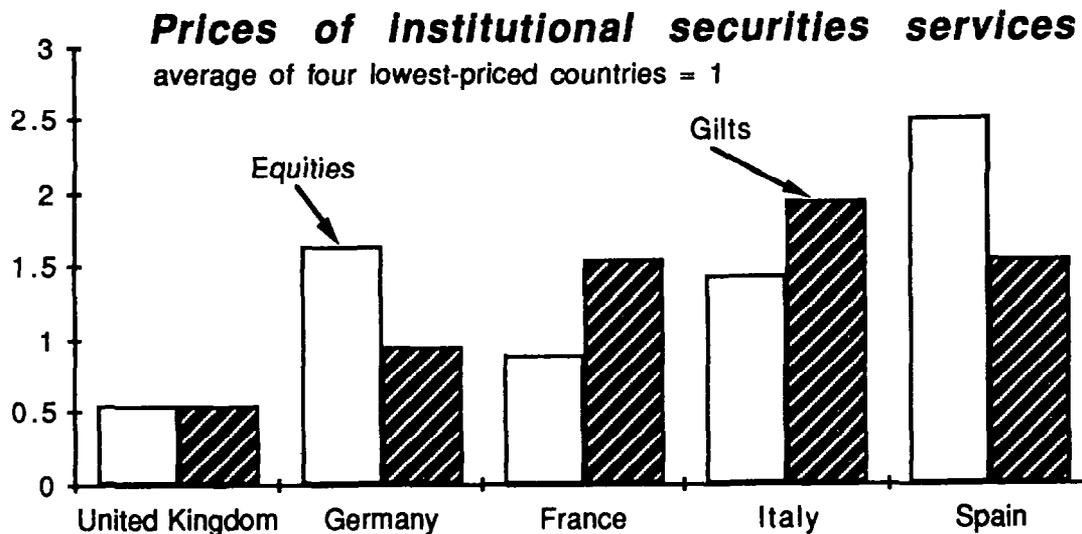
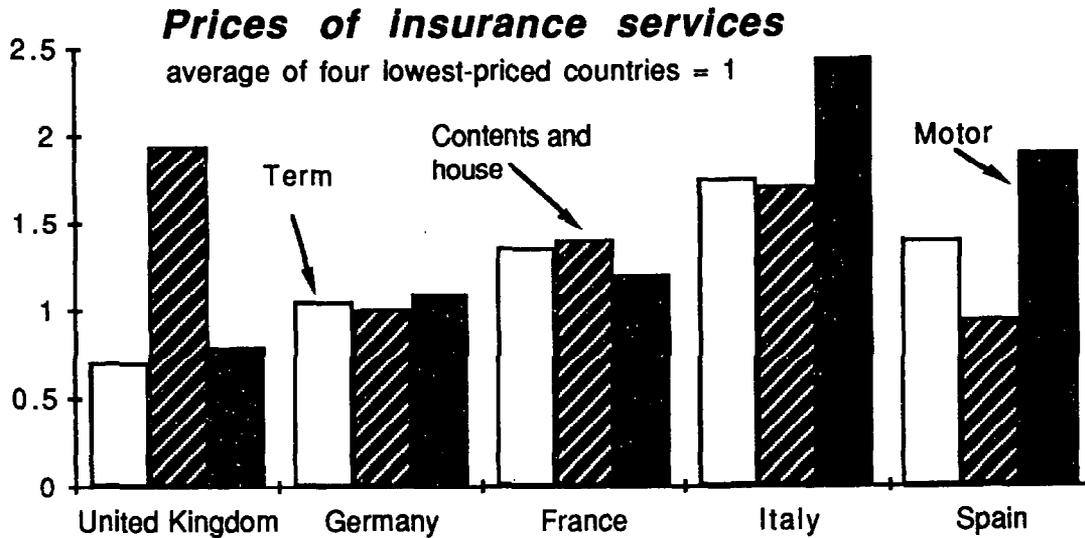
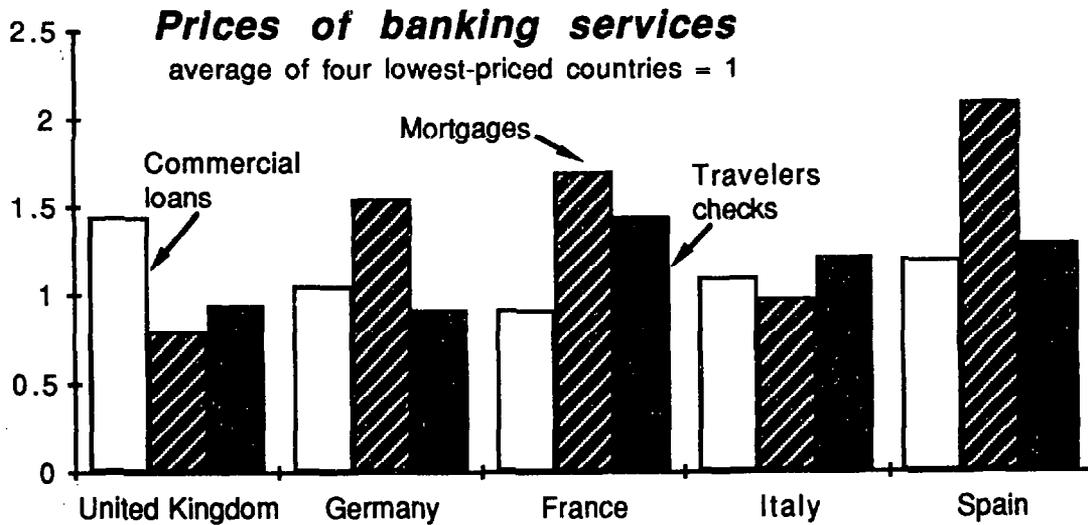
In this situation, the demand for certain key monetary aggregates might become much less stable than in the past. <sup>1/</sup> Moreover, such instability might not be limited to the broader aggregates which consist mainly of interest-bearing instruments. In integrated financial markets, the expected returns on interest-bearing assets denominated in different currencies will reflect anticipated exchange rate changes. As a result, there might be only limited substitution between monetary instruments denominated in different currencies. However, for cash and other very liquid instruments which do not bear interest, the story may be different. Here, returns will not be equalized as long as inflation differentials persist and intra-ERM exchange rates are not completely fixed.

Large scale currency substitution has so far not been observed in the ERM countries. To the extent that inflation differentials narrow further among EC members, incentives for currency substitution will be reduced. Also, it is well to note that the demand for a particular currency is likely to expand only if its use lowers transactions costs. While the integration of financial markets would likely reduce the costs of exchanging one currency for another and make it easier to use any national currency in other countries, it would not by itself favor a

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<sup>1/</sup> This issue is discussed further in Section IV, in the context of the formulation of German monetary policy.

Chart 1. Prices of European Financial Services



Sources: Price Waterhouse and Morgan Guaranty



particular currency. Only if traders, especially large firms operating at a European scale, found it convenient to concentrate their liquidity in one currency--because they could now use this currency for transactions in the entire EC--would this increased substitutability actually lead to a shift in demand toward that currency. In this situation, economies of scale in the holding of transactions balances might lead to currency substitution even in the absence of large inflation differentials or anticipated exchange rate changes.

Another key element in any assessment of the lifting of the capital controls and of deeper financial integration is the implication for the extent and cost of reduced monetary independence. As hinted at earlier, the main defense of capital controls is not that they are costless--but rather that they are less costly than the movements of exchange rates and interest rates that would ensue in their absence. Indeed, evidence on the effect of capital controls in the EMS has typically been gleaned from comparisons of domestic and off-shore interest rates during periods of exchange market pressure. 1/

A wide range of views--both within and outside the EC--prevails on the issue of monetary policy independence. One school of thought argues: (1) that the removal of capital controls is already well advanced and has proceeded with minimal adverse consequences; (2) that the notion of "independent" monetary policy is an illusion, with the real choice being to accept policy constraints beforehand or to face more damaging consequences later when they are ultimately enforced by the market; 2/ and (3) that high rates of unemployment in Europe owe more to structural than to cyclical factors, and therefore are not likely to be much affected by monetary policy.

An alternative view, often held by countries with either very low or relatively high inflation rates, is that reduced monetary independence might entail significant costs. In the former, there is still a vivid memory of the latter days of Bretton Woods when disequilibrium exchange rates, heavy exchange market intervention, and massive capital flows combined to sharply limit the authorities' control over the money supply. These countries do not see their salvation in capital controls. But they would be concerned if removal of controls were paired with institutional developments that jeopardized their price-stability objectives and their hard-won anti-inflationary reputations.

Relatively high-inflation countries have their own perspective. In addition to the constraint that lower monetary independence might impose on their ability to reduce the cyclical or "demand-deficient" component of unemployment, these countries share the concern that increased financial integration could compound their fiscal problems. More specifically, a

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1/ See, for example, Giavazzi and Giovannini (1988) and de Grauwe (1988).

2/ See Duisenberg (1988).

reduction in monetary autonomy could reduce the extent to which fiscal deficits can be financed via the creation of reserve money, that is, it might reduce the revenue from seigniorage. 1/ Part of the loss would be associated with a reduction in monetary expansion to a rate compatible with lower inflation rates. In fact, the convergence of inflation rates among EMS countries during the 1980s has already narrowed considerably the discrepancies in the shares of GDP that fiscal authorities command through seigniorage. As shown in Table 1, by 1987, seigniorage revenues typically amounted to less than 1 percent of GDP. In contrast, there were periods since 1960 when seigniorage revenues in some EC countries were much larger. In addition, the movement toward a unified market in financial services will bring pressure for the harmonization of reserve requirements for commercial banks; as such, those countries that have relatively high required reserve ratios face, ceteris paribus, the largest prospective loss of seigniorage. 2/ Table 2 provides a snapshot of these inter-country differences in reserve requirements on demand deposits. Even if one argues that countries should seek to replace the inflation tax with more sustainable sources of government revenue, there can be a transition problem--especially in cases where tax evasion is significant.

Two potentially important factors could, however, act to limit prospective seigniorage losses. One is that lower and converging inflation rates might produce lower real interest rates by increasing the general attractiveness of holding financial assets. In countries where the stock of interest-bearing public debt is large relative to the stock of base money, only a modest decrease in real interest rates would be sufficient to offset the loss in seigniorage resulting from financial

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1/ The revenue from seigniorage can be defined as the fiscal gains accruing to the government as a result of its ability to issue noninterest bearing base money (currency plus bank reserves) in exchange for interest bearing assets, foreign exchange, monetary gold, and goods and services. An inflationary monetary policy will erode the value of the government's monetary liabilities by an amount that is equal to the product of the stock of base money and the rate of growth of the money supply. This amount can serve as an approximation of revenues from seigniorage provided that the real value of assets backing base money remains more or less unchanged. The estimates would have to be reduced to the extent that the government paid interest on bank reserves (see Gros (1989)).

2/ The competitive advantage for banks in countries with low minimum reserve requirements can be quite substantial since in some countries the marginal obligatory reserve requirement exceeds 20 percent. This implies a lower cost of about 120 basis points for a bank in a country with e.g., a minimum reserve requirement of 5 percent compared to a bank with a minimum reserve requirement of 20 percent if interest rates are about 8 percent and if no interest is paid on these required reserves. In the wholesale market, such a cost differential might be sufficient to cause the transfer of large amounts of deposits towards the banking system of countries with low minimum reserve requirements.

Table 1. Seigniorage in European Countries

(In percent of GDP)

	Seigniorage	
	Actual (1987)	Average 1979-81
Belgium	0.2	0.2
Denmark	-1.1 <u>1/</u>	0.3
France	0.3	0.6
Germany, Federal Republic of	0.8	--
Ireland	0.6	0.1
Italy	0.6	1.4
Netherlands	0.7	0.1
Spain	1.2	1.3
United Kingdom	0.1	0.2

Source: Gros (1989).

1/ The negative value arises because of the payment of interest on bank reserves (see Gros (1989)).

Table 2. Reserve Requirements as of Mid-1988

	Percent of Demand Deposits in Banks
Belgium	--
Denmark	--
France	5.0
Germany, Federal Republic of	6.6 - 12.1
Ireland	10.0
Italy <u>1/</u>	25.0 <u>2/</u>
Luxembourg	--
Netherlands	<u>3/</u>
United Kingdom	0.5
Greece <u>1/</u>	7.5
Portugal	15.0
Spain <u>1/</u>	18.5

Source: Morgan Guaranty.

1/ Required reserves are remunerated to some degree.

2/ Applied against the increase in deposits since May 1984; the effective level of required reserves is close to 20 percent.

3/ A small, variable, and remunerated reserve requirement was introduced in May 1988.

integration. 1/ Second, if ECU denominated assets were to grow in pace with world trade, then it is possible that "external" seigniorage gains available to most EC countries would offset revenue shortfalls from lower "internal" seigniorage. 2/

The effects of increased financial integration on fiscal policy likewise span several policy issues. At least three implications are worthy of direct mention, namely those affecting: (1) the "crowding-out" effects of public spending; (2) the incentives for unilateral fiscal expansion; and (3) the pressures for harmonization of tax policies affecting capital formation. 3/

In a fixed exchange rate system with capital controls, a rise in public spending will generally lead to an increase in domestic interest rates and hence, to some "crowding-out" of spending by private domestic residents. Once capital controls are removed, domestic interest rates are likely to be less sensitive to spending by the domestic fiscal authorities, therefore leading to less crowding out. In this sense, removal of capital controls might make fiscal expenditure policy more effective in influencing domestic output. 4/

At the same time--and operating in the other direction--it sometimes has been argued that greater integration may weaken the incentive to use fiscal policy for stabilization purposes. This is because output and employment benefits from fiscal expansion in any individual country are likely to spill over more to the country's trading partners, generating a larger current-account deterioration for the expanding country. 5/ Consequently, increasing integration can be said to weaken the incentives for unilateral fiscal expansion. For the EMS as a whole, however, the increase in spillover effects (on the rest of the world) would presumably be less marked. This implies that coordinated fiscal reaction to a contractionary shock might be more effective and attractive than unilateral fiscal reaction.

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1/ For example, estimates made in the case of Italy suggest that the loss in seigniorage, incurred through substantial reduction in inflation (from 5 to 3 percent) and in bank deposit average reserve ratios (from 20 to 5 percent) would be virtually offset by a one half percentage point reduction in the real interest rate on public debt; see Molho (1988).

2/ See Cohen and Wyplosz (1988).

3/ In this paper, the term "harmonization" is used to denote a tendency toward convergence of economic variables or the setting of a common policy stance.

4/ This argument abstracts from any effects of the integration of European markets on the distribution of domestic spending between domestic and foreign products and from intertemporal effects on prospective tax burdens related to the build-up of public debt.

5/ Again, this conclusion can be sensitive to the specific model of the transmission mechanism that is assumed.

Increased financial integration and the removal of internal trade barriers will provide greater opportunities and incentives for both portfolio capital and direct-investment capital to flow in directions that exploit inter-country differences in tax treatment. Thus, increasing integration may make it more difficult for countries to maintain substantially different tax codes or to make significant uncoordinated adjustments in tax rates.

To achieve monetary stability without major dislocations, countries may have to avoid creating wide disparities in the relative attractiveness of locating production facilities in different countries, which may require both the harmonization of the tax treatment of capital formation and the suppression of fiscal budgetary imbalances to ranges that do not fuel expectations of substantial tax rate changes. Undisciplined fiscal budgets and unharmonized tax rates can lead to direct-investment flows and, in a multi-currency area, to pressures on exchange rates (and to output and employment effects as well). Even though changes in fiscal conditions may only influence decisions on where to accumulate or refrain from replacing productive capital at the margin, the output and employment effects can be significant in the short-run, and the cumulative effects on capital stocks and productive capacity can be "large" over the long-run. 1/ All of this would be only of academic concern if existing fiscal conditions and tax systems among EC countries were reasonably uniform. They are not. Treatment of interest and dividend income, of capital gains, of securities transactions, and of bank deposits show considerable inter-country variation (see Table 3), as do basic fiscal indicators, such as ratios of fiscal deficits and public debt to GDP, and the maturity structure of public debt (see Table 4). 2/

Last but not least, to the extent that greater financial integration, cum exchange rate commitments in the ERM, reduce authorities' scope for using monetary policy to respond to country-specific shocks, the responsibilities placed on structural and fiscal policies may increase. 3/ It is well to take note of the fact that EMS countries differ in economic structure. As such, it is inevitable that shocks will affect some members more than others. For example, a rise in world oil prices would have a favorable impact on an oil-exporting country such as the United Kingdom and an unfavorable impact on an oil importer such as the Federal Republic of Germany.

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1/ See Isard (1988) for a more extensive discussion.

2/ Nonetheless, some countries have achieved substantial corrections in their fiscal disequilibria, and in others the credibility of plans to get the budget under control has increased recently.

3/ While the funds for regional and structural purposes available through the community budget were raised substantial in early 1988, the community budget is too small to play a significant macroeconomic role in the foreseeable future. Hence, coordination of fiscal policies will be an important element in sustaining monetary integration.

Table 3. Withholding Taxes in European Countries  
(In percent of interest and dividend income)

	<u>On Interest Paid to:</u>		<u>On Dividends Paid to:</u>	
	Residents	Nonresidents	Residents	Nonresidents
Belgium	25	25	25	25
Denmark	-- <u>1/</u>	--	30	30
France	<u>2/</u>	0-51	--	25
Germany, Federal Republic of	10 <u>3/</u>	10 <u>3/</u>	25	25
Ireland	0-35	0-35	--	--
Italy	12.5-30	12.5-30	10	32
Luxembourg	--	--	15	15
Netherlands	-- <u>1/</u>	--	25	25
United Kingdom	25	25	--	--
Greece	<u>4/</u>	49	42-53	42-53
Portugal	30	30	12	12
Spain	20	20	20	20

Sources: Morgan Guaranty and Arthur Andersen.

1/ Banks report interest income to the tax authorities.

2/ Recipients can choose to pay 27 percent or 47 percent; depending on the savings instrument, or to lump interest income with other incomes. Banks report interest income to the tax authorities.

3/ Banks do not report interest income to the tax authorities; a 10 percent withholding rate went into effect on January 1, 1989.

4/ Corporations pay 25 percent; individuals pay 8 percent plus an amount linked to graduated rates applicable to income taxes.

Table 4. Measures of Fiscal Stance

	Total Government <u>1/</u> Expenditure Less Receipts (In percent of GDP, 1987)	Gross Public <u>1/</u> Debt (In percent of GDP, 1987)	Average <u>2/</u> Maturity of Public Debt (Years)
Belgium	-7.2	125.0	3.6
Denmark	2.1	58.4	3.6
Germany, Federal Republic of	-1.8	43.9	--
Greece	-9.5	66.7	--
Spain	-3.6	48.1	1.5
France	-2.5	36.7	4
Ireland	-9.1	119.8	4.3-8.8
Italy	-10.5	92.6	3.5
Netherlands	-6.2	75.0	5.9
Portugal	-8.4	67.6	--
United Kingdom	-1.5	53.2	8.2-9.1

1/ Commission of the European Communities, Annual Economic Report, 1988-89.

2/ Giavazzi and Pagano (1988).

The traditional literature on "optimal currency areas" is relevant in addressing this issue of how to respond to shocks when exchange rates are fixed. 1/ That traditional literature suggests that adjustment will be eased when labor mobility and/or tax and transfer systems (at the level of the currency union) can help to offset the strains on adversely-affected regions. At present, labor mobility within the EMS is limited by linguistic and cultural barriers, while fiscal redistributive mechanisms exist only on a limited scale within the EC. Efforts to improve these adjustment mechanisms could pay large dividends. In this connection, two of the reasons often cited as to why the United States may be closer to an optimal currency area than the EC are that labor mobility and real wage flexibility are higher in the United States, 2/ and that a tax and transfer system operates in the former to redistribute funds without the need for direct negotiations between deficit and surplus areas.

#### IV. Maintaining a Zone of Monetary Stability

The prospective structural changes in European financial markets associated with 1992, along with the increased scope for currency substitution and portfolio diversification, have prompted new questions about whether and how the EMS can continue to constitute a "zone of monetary stability."

Suffice to say that the answers provided have been anything but unanimous. Some have argued that the removal of capital controls will not lead to a significant increase in exchange market instability, and that the benefits of a single market would be large even without an improvement in exchange rate stability. Others have claimed that the investment and trade activity that underpins the economics-of-scale and allocative-efficiency benefits of the 1992 program will not be obtained without a sustained commitment to exchange rate stability. Among the latter group, there is a division of views about how best to achieve greater exchange-rate stability. Some prefer to rely principally on greater policy coordination within given institutional structures. Others see a compelling need to go much further and to establish a monetary union with a single EMS currency.

In this section, a number of issues associated with maintaining a credible anchor, and with *managing monetary, fiscal, and exchange rate policies* within a more integrated EMS are examined. The aim is not to choose one policy option and to dismiss others, but rather to identify factors that merit attention in the relevant decisions.

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1/ See McKinnon (1963), Mundell (1961), and Kenen (1969).

2/ See Freeman (1988) for a recent comparison of real wage flexibility as between the United States and Europe. The Community is currently examining other factors that inhibit labor mobility such as wage policies, labor market rules, and social security systems.

## 1. Choosing a nominal anchor

A central issue in the design of any exchange rate system concerns the choice of a nominal anchor to tie down the overall level of prices. Under the gold standard, for example, a relatively slowly changing stock of gold was counted on to regulate the supply of money and thus to provide an anchor for prices. Under the Bretton Woods system, the monetary policies of the key-currencies countries, particularly the United States, were relied upon to maintain overall price stability.

The original plans for the EMS envisaged that the ECU would be at the center of the EMS, that exchange rates of currencies participating in the ERM would be maintained within a fluctuation margin of plus/minus 2.25 percent (6 percent in the case of the Italian lira) of their bilateral rates derived from ECU central rates, and that a divergence indicator, measuring the deviation of a currency from its ECU central rate, would identify the country in need of adjustment. Adjustment, therefore, would be symmetric, affecting deficit and surplus countries alike. Given the definition of the ECU as a basket of currencies, it was soon recognized, however, that putting the ECU at the center of the system meant essentially that there was no nominal anchor. This raised concerns, particularly in the Federal Republic of Germany, that inflation in participating countries might converge toward the average rate of inflation in the EMS area and that inflationary policies in some countries could introduce an "inflationary bias" into the system. 1/ The significance of the indicator of divergence was, therefore, reduced to a presumption to act which can be refuted.

In the event, the EMS has differed from original plans. The ECU has served principally as a numeraire for the operation of the financial mechanisms of the system. Central banks have focused on maintaining or (in the presence of a fundamental disequilibrium) adjusting the bilateral exchange rate grid. Most important, the EMS has gravitated toward the deutsche mark as the nominal anchor of the system.

The purchasing power of the deutsche mark has been maintained by the monetary policy of the Bundesbank, which has focused on limiting the expansion of deutsche mark monetary aggregates to rates consistent with noninflationary growth. 2/ The need for exchange rate realignments within

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1/ Interestingly enough, a recent empirical analysis (Giavazzi and Giovannini (1988a)) concludes that EMS participation has increased inflation in Germany, and reduced it in other EMS countries, relative to what it would have been in the absence of the EMS.

2/ See Cohen and Wyplosz (1988), Roubini (1987), and Russo and Tullio (1988) for a discussion of the role of the deutsche mark. The ability of the Bundesbank to provide a nominal anchor has been enhanced by its legal status: including an obligation to preserve price stability and independence from government directives. Note that in none of the 12 realignments in the EMS has any ERM currency been revalued against the deutsche mark.

the EMS has been reduced by the willingness of other members to adopt monetary and financial market policies that are consistent with maintaining a stable exchange rate vis-à-vis the deutsche mark. In a number of smaller EMS countries, with the Netherlands perhaps being the best example, the authorities have successfully used interest-rate policy and nonsterilized intervention to maintain a stable exchange rate vis-à-vis the deutsche mark without resorting to capital controls; in the process, these countries, of course, limited their scope for an independent monetary policy. 1/ Until recently, in some other member countries, such as Italy and France, the authorities maintained more control over monetary policy through the use of restrictions on international capital movements, or, as in Belgium, by maintaining a dual exchange rate system. 2/ When realignments have taken place, they have at times provided for less than complete offsetting of past inflation differentials; by so doing, a message has been sent to wage and price-setters in relatively high inflation countries that the ERM will not bail-out inflationary settlements from their output and employment consequences.

Looking ahead, one might ask how the further integration of financial markets might affect the choice and implementation of a nominal anchor within the EMS. This involves the formulation of monetary (and fiscal) policy not only within the Federal Republic of Germany but also in other EMS countries.

In implementing monetary policy, the Bundesbank focuses on monetary assets (denominated in both domestic and foreign currency) held by German residents at banks in Germany. 3/ Deutsche mark holdings of foreign residents have generally not been expected to have a significant impact on aggregate demand in the Federal Republic of Germany. Under current procedures, the Bundesbank satisfies, through its money market and other operations, 4/ the increased demand for required reserves coming from the

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1/ Though not a member of the EMS, Austria also has used its monetary policy to maintain a relatively fixed parity with the deutsche mark. Switzerland, also a nonmember, has also been sensitive to the deutsche mark/Swiss franc rate.

2/ Since Belgium has had relatively few restrictions on cross-border capital flows, the dual exchange rate system has helped to maintain more control over monetary conditions only in the very short run during speculative crises.

3/ When a foreign resident opens an account with a bank in Germany, it appears as a foreign liability in the balance sheet of the German bank and not as a domestic monetary liability. When a domestic resident opens a foreign currency account at a domestic bank, it is classified as a domestic monetary liability and, therefore, included in the monetary aggregates. In 1987, foreign currency deposits, held by German residents with German banks amounted to less than 1 percent of broad money (M3).

4/ This could also encompass its discount and lombard operations.

banks receiving new external deposits. 1/ In the case of increased foreign demand for deutsche marks that takes the form of increased holdings of currency notes, the monetary authorities are generally unable to identify holdings of currency notes by the residence of the currency note holder.

The integration of financial markets could make the formulation of German monetary policy--and that of other EMS countries--more difficult. It could do so by affecting the information content of monetary aggregates and by influencing the stability of the demand for domestic money.

The announcement of target growth rate ranges for a specified monetary aggregate has been an integral part of German monetary policy. This reflects the view that in the German economy there has existed a reasonably stable relationship between growth and inflation on one hand, and the expansion of this monetary aggregate on the other. 2/

In general, the introduction of new financial instruments and the provision of traditional banking services by other types of financial institutions could lead to sharp changes in the holding of certain types of financial instruments that have been included in broad monetary aggregates. If this occurred, the interpretation of movements in these aggregates would become more problematic. While this could potentially be avoided by an appropriate redefinition of the monetary aggregates, such redefinitions often are difficult to accomplish in a timely fashion. In addition, the growing integration of financial markets may complicate the link between the monetary component directly controlled by the authorities (domestic credit) and monetary growth. All of this would presumably make the interpretation of a nominal anchor less straightforward than it is now--although in the end, the litmus test is still likely to be actual inflation performance.

Monetary policy in other ERM countries can likewise expect to be altered to some degree by the greater integration of European financial markets. Not surprisingly, countries that have maintained some form of capital controls are likely to face greater changes than those (such as Belgium and the Netherlands) that have had relatively unrestricted cross-border financial flows for some time. Indeed, the latter group may actually find that their monetary policy instruments can be more effective in maintaining a stable exchange rate vis-à-vis the deutsche mark. For example, the removal of capital controls will generally make portfolio

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1/ If these deutsche mark deposits of nonresidents were held instead at banks outside Germany, the banks in question would want to hold reserves against these deposits and would likely increase their interbank deposits with the German banking system. Again, the Bundesbank would typically accommodate the German banking system's demand for reserves resulting from increased deposits by foreign banks.

2/ See Isard and Rojas-Suarez (1987).

managers in all ERM countries more sensitive to yield differentials. A given tightening of monetary policy (say, through an increase in the discount rate) may therefore induce a larger capital inflow than in the past and make it easier to counteract any downward pressure on the exchange rate.

In those countries in which capital flows are being liberalized, monetary policy could be increasingly constrained by the ability of domestic residents to diversify their portfolios. Such diversification would be facilitated as financial institutions extend their branch and subsidiary networks across the EMS countries. This will allow depositors to switch easily the currency of denomination of their deposits and will allow securities holders to move between financial instruments issued in various countries and denominated in different currencies. Attempts by any single ERM participant to adopt a distinct monetary policy stance quite divergent from that of the other members could therefore create immediate pressures on that country's exchange rate, as depositors and investors switched from (toward) holdings of instruments denominated in its currency. 1/ A similar verdict would apply to divergent fiscal policies, if the markets believed that fiscal deficits were likely to be monetized 2/ or if the divergent policies significantly changed the relative attractiveness of locating production facilities in different countries.

The bottom line is that increased financial market integration is likely to increase the interdependence between monetary policies in the EMS countries. It is thus likely to discourage the pursuit of independent monetary policies. 3/ Yet this still leaves several options for the choice of a nominal anchor. To illustrate, one option would be to continue to have the Bundesbank lead the way on the course of monetary policy and to derive the credibility advantages associated with its past performance. Another option would be to move closer to a more symmetric

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1/ Even if depositors regard the switching of the currency of denomination of their deposits as a mere "bookkeeping" transaction at a single bank branch, this would still generate pressures on the exchange market as the banks took steps to hedge their larger currency exposures.

2/ See the literature on "speculative attacks," where the inconsistency between the fiscal stance and the existing exchange rate lies at the root of the attack; see, for example, Flood and Garber (1984). Note that in cases where the fiscal deficit is not expected to be monetized and is associated with increased spending on productive capital formation, increased financial integration may actually make it easier to finance a fiscal deficit by drawing in more foreign financing, as in the case of Puerto Rico during the 1950s and 1960s; see Ingram (1973).

3/ These points are well illustrated, for example, by the experience of Denmark, where the interest rate sensitivity of capital flows increased sharply since the liberalization of exchange controls began in 1983 and with it, the endogeneity of monetary policy; see Akerholm and Tarkka (1986).

approach by having monetary policy (in each ERM country) follow an index of say, traded goods prices or even, of nominal incomes, defined across the average of ERM countries. 1/ In this way, more explicit allowance would be made for differences in monetary policy objectives across ERM member countries. And yet a third option would be to envisage the choice of a nominal anchor within a more far-ranging coordination process that uses a set of economic indicators--along the lines of the ongoing G-7 exercise--and where monetary policy would be coordinated along with fiscal and structural policies. 2/ The crucial issue under this approach is to find an effective way to share the adjustment burden among the participants, while still ensuring that price-stability objectives carry conviction and credibility with markets.

2. Broader directions for policy under increased integration

On a broader plane, the challenges raised by increased financial integration within the EMS could be addressed by a number of alternative policy strategies. One strategy is to proceed apace with integration of goods and services markets and to extend that form of integration to as wide a membership as possible, but to go slow on the dismantling of capital controls. At the very least, some favor reimposition of capital controls, as permitted under the 1988 safeguard clause of the directive on the liberalization of capital movements, if pressures on exchange markets prove unrelenting. This has sometimes been classified as a strategy of widening--rather than deepening--integration.

The basic rationale behind the widening strategy is that the lion's share of the benefits of moving to lower inflation rates have already been achieved, that fully open capital markets will force excessive adjustment costs on relatively high-inflation countries as their monetary policy independence is further eroded, and that the welfare gains from goods market integration and from stable exchange rates are what matters most. The case against this strategy is that dragging one's feet on capital controls--or reimposing such controls--would deny or undo the significant efficiency gains associated with allowing capital to seek its most productive use through the integration of the financial services industry. For example, repeated reimposition of "temporary" exchange controls might well lead to a risk premium in domestic interest rates that reflected the risks to investors that capital controls would be reimposed in the future. This higher real interest rate, in turn, would discourage investment. Also, it is far from obvious that once investors become accustomed to

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1/ Automatic mechanisms for policy reactions have so far not attracted much attention in the Community since they are viewed as neglecting the need to take all available information into account.

2/ See former Minister Balladur's proposals to the EC Monetary Committee in mid-1987; these are described and analyzed in Holtham, et al. (1987). The Monetary Committee already monitors economic conditions on the bases of a set of indicators prepared by the Commission.

dealing in a wide array of financial instruments, that reimposition of capital controls would any longer be effective.

A second strategy would be to go ahead at full speed with goods and financial market integration, but to be prepared to countenance occasional--perhaps even frequent--exchange rate realignments. Implicit in this strategy are the assumptions that labor mobility and fiscal redistribution will not be sufficient to smooth country-specific shocks; that some monetary independence is to be highly prized; that the efficiency advantages of open capital markets are substantial; and that small, unanticipated exchange rate realignments--most of which could be within existing bands--would have only a minor adverse effect on investment and goods-market integration. Proponents of this strategy also note that EMS members have taken steps to increase the resources available for exchange market intervention. Specifically, the very short-term financing available to central banks through the European Monetary Cooperation Fund (EMCF) has been extended for longer durations and the ceiling applicable to automatic renewals has been doubled. Also, attitudes toward financing intra-marginal intervention through the EMCF have become more supportive. Opponents of this strategy are unconvinced. They emphasize that managing exchange rate realignments in a world of open capital markets and of high currency substitution is not the same as managing with the aid of capital controls. Under the former, they expect exchange market pressures to be more frequent and more severe, and they view increased exchange rate uncertainty as inimical to effective goods-market integration.

The third approach is to respond to the increased monetary interdependence induced by greater financial market integration with a commensurate increase in the coordination--or even harmonization--of monetary policy. <sup>1/</sup> By so doing, this strategy seeks to reap the full efficiency gains from open capital markets, to remove the leading source (i.e., divergent monetary policies) of exchange-market pressures, and to create a zone of monetary stability that would facilitate integration of goods and labor markets.

Restructuring the EMS so as to enhance its ability to conduct coordinated monetary policy could be done at various levels. Beginning with the least ambitious option, attempts could be made to build on the formal and informal cooperation within the EC Committee of Governors and the Monetary Committee. Such an approach would retain what are often described as the most desirable features of present arrangements, namely, the maintenance of a high-quality monetary standard and reliance on existing national central banks rather than the creation of a new layer of institutional arrangements. Efforts might concentrate on achieving more

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<sup>1/</sup> In this discussion, coordination of policies involves individual countries formulating their policies in light of the policies that other countries will undertake. Harmonization of policy involves the further step of adopting a common policy stance.

timely and more coordinated policy responses (including interest rate adjustments) to exchange market pressures. It is not clear, however, how differing national views on the stance of monetary policy would be resolved.

Taking a further step along the spectrum toward harmonization of monetary policy, some have proposed creation of a central board or organization. This organization would decide on the overall stance of monetary policy across the EMS but would allow for the decentralized implementation of this policy through national central banks. Such proposals are usually patterned on the "federal" systems in the Federal Republic of Germany and in the United States that combine a central decision-making board with regional banks. Under some of these proposals, the central board might initially be assigned control over only a few policy instruments and would serve principally as a forum for the policy coordination discussions. <sup>1/</sup> In addition, it has been envisioned that the board could manage the pooled reserves of the EMS central banks and could conduct exchange-market intervention operations.

The main rationale for a central monetary institution is that it reduces uncertainties and conflicts about and among national monetary policies. It is said to do so by providing a forum where national views can be represented and hopefully resolved, and by reducing the discretion that national monetary authorities have to implement divergent policies. It is claimed that in the absence of such a central institution, such national conflicts will be resolved in the market place--with adverse externalities for efforts to promote greater stability of exchange rates. Country-specific shocks would be handled by other (nonexchange-rate) policy instruments. Just how such a central monetary institution could be made politically responsive to member states of the EMS does not admit of a simple answer. Some proponents argue that this could be achieved through the mandate given to the new institution, through the requirement of making reports, and through the national representatives appointed to the governing board. Also, certain powers could be retained by national central banks. Others argue that it is essential that a central monetary institution have sufficient independence to make credible its anti-inflationary objectives.

Continuing further along the spectrum, one arrives at a full-fledged European Central Bank (ECB) that issues a single European currency and that takes over almost all the functions of existing national central banks. This of course represents the ultimate in monetary policy harmonization--with all the pros and cons that go with it. The argument for preferring a single currency to a system of fixed exchange rate is that the latter can never carry full credibility. Official pronouncements notwithstanding, there is always a risk that when official reserves are

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<sup>1/</sup> As with the Bundesbank, it has been suggested that the central board or organization be given freedom from government directive and be legally required to pursue price stability.

being run down, a country will opt to alter its exchange rate rather than its monetary and/or fiscal policies. Only when--so the argument goes-- separate exchange rates are eliminated will one be able to enjoy the lower transactions costs associated with using a single money. While it is often readily acknowledged that the transition from national monies to a single European currency would take time to overcome ingrained habits, it is put forward as a valuable goal to work toward. The obvious efficiency gains derived from using a single currency in the United States are frequently cited as a leading case in point.

#### V. Implications for the International Monetary System and Other Countries

The full implementation of the single market program could affect a broad range of economic and financial relationships between the EC and the rest of the world. It could also carry implications for the structure of the international monetary and reserve systems. This section first considers the implications for the global exchange rate system and for the role of the European Currency Unit (ECU) as an international reserves unit. Attention is then given to the effects of the program on trade and financial flows between the EC and other countries.

##### 1. The international monetary system, the EMS, and the ECU

The period of managed floating has exhibited a much higher degree of exchange rate variability than the Bretton Woods period. <sup>1/</sup> Many observers go further and regard this variability as "excessive." The EMS system provides the only current example, at least in the industrial world, of a group of countries that has maintained fixed but adjustable exchange rates (among themselves) for an extended period. <sup>2/</sup> As such, great interest attaches to the implication of the EMS experience for prospects of re-establishing more fixity of exchange rates among a wider, more heterogenous group of countries--especially in an era of increasing integration of major financial markets.

At this point, the EMS experience does not yet provide a definitive test of whether a fixed but adjustable exchange rate regime can happily coexist with open capital markets. This is because: (1) ERM countries have maintained flexible exchange rates vis-à-vis other major currencies; (2) some EMS members have relied on capital controls to limit financial flows; (3) the ERM has not encompassed any of the three major (as measured by the volume of transactions) financial centers (i.e., London, New York, or Tokyo); and (4) there are larger integration goals (beyond the ERM) among EMS members that are likely to be absent among a wider set of major-

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<sup>1/</sup> See Frenkel and Goldstein (1988).

<sup>2/</sup> For a discussion of the evolution of the exchange rate system, see Crockett and Goldstein (1987).

industrial countries. 1/ In this sense, inferences from the EMS experience for the design of the international monetary system as a whole can only be tentative--at least until the results of increased financial integration are apparent, and perhaps even until the EMS encompasses a wider membership.

Another perspective on the development of the EMS under increased financial integration is to ask what this might mean for the future role of the ECU--both in the international reserve system and in private financial markets. As noted earlier, the ECU serves as the numeraire of the EMS, the unit of denomination for the credit facilities, and as a means of settlement of central bank intervention debts. 2/ The role of the ECU in the EMS has been strengthened by raising the rate of remuneration on ECU assets and by widening the acceptance limits imposed on creditor central banks in case of settlement of intervention debts. In addition, other holders have been allowed to acquire ECUs. At the end of 1987, ECUs constituted 29 percent of the foreign exchange reserves of EC countries.

In many respects, there has been a much sharper expansion in the private use of financial instruments denominated in ECUs (see Table 5). Indeed, in recent years, a wider range of financial instruments denominated in the ECU have often been available than in some of the component national currencies. Some member governments of the EC and EC institutions have actively fostered the use of ECU in private markets. The EC Commission has stressed in proposals to the EC Council of Ministers in April 1983 that the further development of the private ECU is an important ingredient in the financial integration of the EC. The EEC, European Investment Bank, and the European Coal and Steel Community have all issued obligations denominated in ECU and have made deposits and loans in ECUs. The Commission has also helped in the establishment of a multilateral banking clearing system in ECUs in the BIS. Recently, the potential for the private use of the ECU has been further expanded by the issue of ECU-denominated Treasury bills by the United Kingdom and Italy. The issuance of ECU-denominated debt on such a scale can be expected to generate more official clearing and settlement procedures, in this case, under the auspices of the Bank of England. An important boost to the ECU has also occurred when EC member governments have been prepared to allow

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1/ For a discussion of this issue see Ungerer (1984). It should also be noted that the Resolution of the European Council of December 1978 explicitly provided for other European countries with close links to the Community to join the EMS. To date, none have applied.

2/ As discussed in Section II, the ECU was created when countries transferred via renewable three month "swaps" 20 percent of their gold and U.S. dollar reserves to the European Monetary Cooperation Fund (EMCF) in exchange for holdings of ECUs.

Table 5. Public Bond Issues Denominated in ECUs Since 1981  
(According to issue dates)  
(With maturities greater than three years for the year 1981-87)  
(In millions of ECUs)

	National	International	Total	Number of Issues	Average Size (Inter- national)
1981	--	190	190	6	33.7
1982	1,100	812	1,912	19	42.8
1983	540	2,007	2,547	44	43.5
1984	1,248	3,392	4,905	64	54.7
1985	2,743	8,572	12,005	127	70.9
1986	1,704	7,039	8,993	83	86.0
1987	1,600	6,391	7,991	71	95.0
1981-87	8,235	28,403	38,543		
1988 <u>1</u> /	6,250	9,088	15,338		116

Source: Steinherr and Girard (1988).

1/ Through November 1988.

residents to deal more freely in ECUs than in other foreign currencies. Moreover, the Commission believes that the ECU has become a forceful symbol of monetary identify of the Community. 1/

These developments suggest that the private ECU has been used mainly as a unit of account for various types of interest bearing financial assets. In this sense, it represents--at least so far--more a new financial instrument than a parallel currency, since all contracts denominated in ECUs could in principle be duplicated by writing identical contracts in the different component currencies. It has been argued that it is exactly this "basket characteristic" of the ECU that has been the source of its success in financial markets. For many market participants, it has apparently proved convenient to use the ECU to hedge against exchange rate fluctuations because the exchange rate risk of the ECU is smaller than that of any of the component currencies. The use of the ECU also allows participants in financial markets to reduce the transactions costs that would arise if the ECU basket (or a similar one) had to be constructed each time on an individual basis.

It is not clear how on balance the integration of financial markets in the context of more stable intra-ERM exchange rates would affect the market for assets denominated in ECUs. On the one hand, the increased integration of all European markets should lead to an increase in intra-EC trade in goods and services. This should raise the usefulness of contracts denominated in ECUs for both debtors and creditors since such contracts might correspond increasingly to the average trading pattern. On the other hand, any reduction in intra-ERM exchange rate variability should both reduce the demand for the ECU as an instrument to hedge against this uncertainty and make it easier for traders to write tailor-made contracts that are similar to the ECU, but correspond more closely to the need of the individual parties involved. Moreover, in those countries which had capital controls, some financial transactions were exempted from these controls or otherwise received favorable treatment if they were denominated in ECUs. With the removal of capital controls, the ECU would therefore lose one of its advantages.

## 2. Trade and financial relationships with non-EMS countries

The single market program could have important effects on the pattern of trade and financial flows between the EC and other regions of the world. It is anticipated that the removal of restrictions on trade and finance within the EC countries will generate greater efficiency in a broad range of markets as a result of increased competition. These efficiency gains in turn can be expected to lead to higher productivity and faster income growth. The EC Commission has argued that this income

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1/ The Swiss Central Bank has just acquired the status of "other holder" of ECUs. In addition, some other non-EC banks are holding private ECUs and more EC central banks have considerably stepped up their private ECU reserves.

growth will stimulate imports into the EC. The strength of this effect will presumably depend on the restrictiveness in the EC with regard to imports from the rest of the world. The EC Commission has stated that the average level of external protection will not be increased as a result of the implementation of the single market program. 1/ However, to the degree that this protection consists of nontariff barriers (which limit the volume of imports), then an expansion of income in the EC could have only a limited impact on Community imports. The stimulus provided by the single market program to the rest of the world would naturally be enhanced by a reduction in the average level of protection or in those barriers most costly to consumers and with the greatest adverse effects on trade. 2/ 3/

While the single market program will clearly increase the linkages between European financial markets, concerns have also been expressed that the implementation of certain aspects of this program might impede the participation of non-EC country financial institutions in European markets. 4/ In particular, the Commission has reserved the right to make access to the benefits of 1992 for nonmember countries' firms conditional upon a guarantee of similar opportunities--or at least nondiscriminatory opportunities--in those firms' own countries. While this does not mean that the Community is asking its partners to install legislation identical to its own, it is concerned that Community banks and other service companies have the same effective level of market access as others have on the Community market.

One potential pitfall with this reciprocity approach is that countries still have significantly different financial structures,

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1/ While the Treaty of Rome provided for a common commercial policy for member countries, the provisions of Article 115 authorized members to take protective measures to avoid circumventions through free circulation inside the internal market. However, the elimination of physical barriers inside the EC will imply that Article 115 provisions will not be applicable any longer. However, it is expected that, for a few very sensitive products, specific measures will be introduced at the Community level; but this is also to be done so as not to increase the overall level of protection.

2/ Some developing countries could also be directly affected by changes in the ERM currencies vis-à-vis other currencies. For example, 13 countries in Africa have their currencies pegged to the French franc. A depreciation or appreciation of the French franc vis-à-vis the other currencies in the ERM or other major currencies could potentially have an important effect on the import costs and export performance of these developing countries.

3/ For a detailed study of the effects on trade of the single market program, see Kelly, et al. (1988).

4/ The Community efforts in this area are concentrated on a multi-lateral agreement on trade in services which aims at the achievement of effective market access to all world markets.

reflecting both historical developments and differences in national attitudes toward risk and concentration of economic power. Japan and the United States, for example, have long favored the application of laws separating banking and securities activities as well as banking and commercial activity. In contrast, in some European countries universal banks can generally undertake both securities and banking activities and have often held equity in commercial ventures. Under a strict reciprocity approach, such a difference in financial structures might result in the exclusion of U.S. and Japanese banks from EC securities activities, since EC universal banks would not be able to undertake such activities in the United States and Japan. Similarly, the restrictions on the ownership of nonbank entities by banks in the United States might lead to corresponding restrictions on the activities of U.S. banks in the EC. 1/

It has been suggested that one means of avoiding these problems would be through the "national treatment" approach which allows foreign financial firms operating in a country to undertake the same set of activities as domestic financial firms. Such treatment has been the basis for many international agreements in recent years, including the Canada-United States Free Trade Agreement. Nonetheless, reciprocity requirements have been an integral part of the financial and banking laws of many countries, and the EC Commission and Council have continued to study the reciprocity issues since the issuance of the draft Second Banking Directive. In April 1989, for example, the Commission has amended the draft (1) to simplify the procedure for giving authorization to third country banks to operate within the EC area; (2) to have the EC open negotiations with countries whose banking regulations are more restrictive than those in the EC to reach mutually satisfactory rules of access to the respective banking markets; and (3) to ensure that a third country bank applying for access to an EC market will be denied license only if (and as long as) its home country denies national treatment and effective access to its banking market to banks based in the EC countries.

## VI. Summary

The EMS has successfully maintained a zone of monetary stability within the EC since it was established in 1979. The zone of stability was achieved by means of close monetary cooperation and coordinated exchange rate management. As a result, there has been a reduction in the variability of nominal and real exchange rates among the ERM currencies and lower interest rate and inflation differentials between the ERM countries (as well as lower overall inflation). However, there has been no marked tendency for convergence of fiscal policies; and concerns have been raised that the EMS has operated "asymmetrically" in terms of

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1/ This issue is being addressed in more detail in the M. Allen, et al, "International Capital Markets--Developments and Prospects", International Monetary Fund, April 1989."

shifting the adjustment burden towards weak-currency countries and my imparting a "deflationary bias" to overall EMS growth.

The implementation of the single market program, especially the removal of capital controls and other restrictions on financial market integration, confronts the EMS with new opportunities and challenges. The potential gains in economic efficiency associated with the creation of the world's largest internal market (measured in terms of GNP) could be substantial. However, integrated capital markets will place constraints on the formulation of and management of monetary, fiscal, and exchange rate policies by member countries. The ability of EC residents to diversify the currency and maturity composition of their financial portfolios may make the demands for certain key monetary aggregates less stable and could weaken the degree of monetary independence, especially for those members that have maintained some restrictions on capital flows. Moreover, while fiscal policy may become more effective in influencing domestic output as domestic interest rates become less sensitive to changes in domestic government spending, there may be less incentive for unilateral fiscal expansion as the benefits of such expansion are more likely to spill over to other countries. In addition, countries may find it more difficult to maintain substantially different tax codes or to make significant uncoordinated adjustments in tax rates.

The prospective structural changes in European financial markets raise the issues of whether and how the EMS can continue to constitute a zone of monetary stability. In the past, the EMS has gravitated toward the deutsche mark as the nominal anchor to tie down the overall level of prices. While the growing integration of financial markets is likely to increase the interdependence between monetary policies in the EMS countries, a nominal anchor could still be maintained either by having the Bundesbank continue to lead the way on the course of monetary policy, by formulating monetary policy (in each ERM country) on the basis of an index of traded goods prices (or nominal incomes), or through more far ranging coordination of monetary policies. The increased harmonization of monetary policy could in turn take the form of building on the cooperation within the EC Committee of Governors and the Monetary Committee, the creation of a central board or organization to decide on the overall stance of monetary policy, or a fully fledged European Central Bank. More broadly, the challenges for policy formulation raised by increased financial integration within the EMS could be addressed by a number of alternative strategies including to proceed apace with the integration of goods and services markets but to go slow on the dismantling of capital controls or to proceed at full speed with goods and financial market integration but to countenance occasional exchange rate realignments.

The full implementation of the single market program could affect a broad range of economic and financial relationships between the EC and the rest of the world as well as the structure of the international monetary and reserve systems. The EMS experience could provide inferences about whether a fixed but adjustable exchange rate regime can coexist with open capital markets. Moreover, the ECU could potentially play larger roles as

a reserve asset and in private market. The effects of the single market program on the patterns of trade and financial flows between the EC and other regions of the world will be influenced by both the growth experienced in EC countries and its level of external protection adopted by the EC. The stimulus provided by the program to the rest of the world would naturally be enhanced by a reduction in the average level of protection in the EC. Moreover, the type of reciprocity provisions implemented with regard to the participation of non-EC financial institutions in European markets will influence the degree of competition in EC markets.

### Glossary of Terms

Bilateral Exchange Rate Grid: The set of bilateral central rates between the currencies of participating member states.

Central Rate: Benchmark rate expressed in terms of the ECU from which the mandatory intervention points are determined.

Central Rate Grid: In the European Monetary System of fixed but adjustable exchange rates, each currency has a central rate expressed in terms of the European Currency Unit. These central rates determine a grid of bilateral central rates, around which fluctuation margins of  $\pm 2.25$  percent (6 percent for the Italian lira) have been established. Although the pound sterling is not participating in the exchange rate mechanism, for the purposes of the operation of the divergence indicator, a notional central rate has been assigned to the pound sterling.

Commission of the European Communities: It is the executive and policy-proposing body of the Communities and its members must act in full independence both of the member governments and of the Council of Ministers.

Committee of Governors of the Central Bank: Advisory body composed of governors of central banks and is involved in preparation of all decisions and resolutions of the Council of Ministers concerning monetary policy.

Council of Ministers: The Council of Ministers is the only Community institution whose members directly represent the member governments. Representatives of the national governments sit in the Council, and the foreign ministers are generally present for major decisions. The Council takes decisions in one of three ways; either unanimously, by simple majority, or by a weighted majority according to various circumstances laid down in the Treaties.

Directives: These are issued by the Council of Ministers and are binding as to the result to be achieved. It is left to each member state to decide how to achieve that result, and a member state may have to amend its own national laws or administrative practices to bring them into line with Community law.

Divergence Indicator: It is intended to further economic alignment among participating countries in the EMS by detecting Community currencies that happen to deviate upward or downward from the Community average as represented by the ECU. When a currency crosses its threshold of divergence, there is the presumption that the authorities will implement corrective measures, including diversified intervention in the foreign exchange market and domestic economic policy measures. While at times

movements of the divergence indicator have resulted in some action, the indicator has not been able to assume the role of linking exchange rate developments to an increasing convergence of economic policies.

EC: European Communities.

ECB: European Central Bank.

EEC: European Economic Community.

EMCF: European Monetary Cooperation Fund.

EMS: European Monetary System.

ERM: Exchange Rate Mechanism.

European Commission: See Commission of the European Communities.

European Communities: The European Communities (EC) were established by the Treaty of Paris (1951) and the Treaties of Rome (1957). The institutional structure of the Community, organized along the lines of a national administration, consists of the EC Commission, the Council of Ministers, the European Parliament, and the European Court of Justice.

European Council: At the Paris meeting in December 1974 of Heads of Government of member countries, it was decided to meet, accompanied by the Ministers of Foreign Affairs, three times a year. These meetings have become known as the European Council, and since the European Council meets with representatives of the Commission present, it is thus also the Council of European Communities, and as such is empowered to adopt Community instruments in the form laid down by the Treaties.

European Currency Unit (ECU): The ECU is a composite unit consisting of specified amounts of the currencies of all EMS member countries. It serves as the numeraire for the exchange rate mechanism, as the denominator for operations in both the intervention and the credit mechanisms, as a reference point for the divergence indicator, and as a means of settlement and a reserve asset of EMS central banks.

European Monetary Cooperation Fund (EMCF): A Fund set up with the intention of becoming the embryo of a reserve system of the community central banks, and to have operational responsibility in the field of a community currency exchange system. The governors of the Fund are the governors of the member states' central banks. The Fund uses the Bank for International Settlements as its agent, and intervenes on the foreign exchange markets at the request of member states.

European Parliament: The European Parliament is elected by popular vote and has advisory powers under which it delivers to the Council nonbinding opinions on Commission proposals and has supervisory powers over the Commission. The Parliament is also responsible for final approval of the

EC budget, although it has limited power to amend it. More recently, the Parliament acquired the power to reject or amend Council decisions pertaining to the unification of the EC market under the Single European Act.

Exchange Rate Mechanism: This mechanism is in two parts: (i) the first being based on maintenance, by way of unlimited intervention on the exchanges, of bilateral limits of fluctuations between participating countries; and (ii) the second being based on the divergence indicator, the purpose of which is to establish a presumption to take action on the part of the authorities responsible for the currency whose rate exceeds certain limits which are fixed in terms of the ECU and which, generally speaking, since they are narrower than those demarcating the bilateral margins of fluctuation, will be reached before the latter.

Intervention Limits: The intervention limits are calculated by applying to each of the bilateral central rates the maximum margin of fluctuation of plus or minus 2.25 percent (6 percent for the lira). The participating countries are obliged to keep the rates of their currencies within these bilateral limits.

Intramarginal Intervention: Apart from compulsory intervention at the bilateral limits, there is provision for intervention before these limits are reached. Basically, there are two types of such intramarginal intervention. First, there are optional operations initiated by any central bank such as intervention in dollars. Second, there are interventions which a country may have to carry out under the rules governing the operation of the divergence indicator. As a general rule, the divergence threshold will be reached before the currency in question reaches its bilateral limit against another currency. As soon as the threshold is crossed, the currency in question will be in a position that may cause strains within the system, and to prevent this, there is a presumption that the issuing country of the diverging currency will act to remedy the situation, and such action may take the form of diversified intervention.

Medium-Term Financial Support Facility. (MTFS): Medium-term financial assistance that is granted by the Council to any member state experiencing difficulties or seriously threatened with difficulties as regards its balance of payments. Assistance is conditional, with a borrower country having to agree to certain economic and monetary conditions. It is denominated in ECU and repayable within a period of between two and five years.

Monetary Committee: A consultative body set up to promote coordination of monetary policies.

Realignment: The readjustment of the central rates of the EMS.

Short-Term Monetary Support: The purpose of this mechanism is to help meet financing needs arising from temporary balance of payments deficits

caused by unforeseen difficulties or cyclical divergences. The mechanism is based on a system of debtor and creditor quotas which determine each EEC central bank's borrowing entitlement and financing obligations. These credits are granted by central banks for three months and are twice renewable.

STMS: Short-Term Monetary Support.

Threshold of divergence: The divergence indicator shows the movement of the exchange rate of each EMS currency against the (weighted) average movement of other EMS currencies. The criterion used is the divergence of the actual daily rate of the EMS currency, expressed in ECUs, from its ECU central rate. If a currency crosses a threshold of divergence, set at 75 percent of the maximum divergence spread, this leads to a presumption that the authorities concerned will correct the situation by adequate measures, such as diversified intervention, measures of domestic monetary policy, changes in central rates, or other measures of economic policy.

Very Short-term Financing Facility (VSTF): This is a reference to very short-term credit facility which participating central banks grant to each other through the EMCF in order to permit interventions in Community currencies. Such operations are denominated in ECUs, and the debtor and creditor interest rates are equal to the rates applicable to net users and holders of ECU assets. The duration of such financing is for 45 days and can be extendable by three months.

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