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Monetary Policy in an Emerging European  
Economic and Monetary Union: Key Issues

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Abstract

This paper discusses key issues relating to the design and implementation of monetary policy in an emerging European economic and monetary union. Specific institutional proposals for transition to EMU are neither endorsed nor dismissed.

In examining the goals of monetary policy, the paper explores the interrelationships among price stability, current account equilibrium, and exchange rate stability. Turning to the implementation of monetary policy, the issues addressed are: coordination versus autonomy, rules versus discretion, and the role of sterilized official intervention. Finally, the last part of the paper emphasizes the importance of fiscal discipline, and evaluates several alternative mechanisms for encouraging it.

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<u>Table of Contents</u>	<u>Page</u>
I. Introduction . . . . .	1
II. Goals of Monetary Policy . . . . .	1
III. Implementation of Monetary Policy . . . . .	7
IV. The Search for Fiscal Discipline . . . . .	10
Bibliography . . . . .	14

## I. Introduction

This paper discusses key issues relating to the design and implementation of monetary policy in an emerging European economic and monetary union. We neither endorse nor dismiss specific institutional proposals for transition to EMU. Instead, our purpose is to focus on broad policy issues that are of systemic interest and that need to be addressed in any serious examination of EMU.

The paper is organized along the following lines. Section II looks at the goals of monetary policy. The emphasis here is on the inter-relationships among price stability, current account equilibrium, and exchange rate stability. Section III turns to the implementation of monetary policy. The key issues in this connection revolve around coordination versus autonomy, rules versus discretion, and the role of sterilized official intervention. Finally, Section IV considers the implications of fiscal policy for the conduct of monetary policy and examines some alternative mechanisms for encouraging fiscal discipline.

## II. Goals of Monetary Policy

Monetary union is generally taken to imply both irrevocably fixed exchange rates (or perhaps even a common currency) and full integration of financial and banking markets. 1/ From this definition, it follows that the path to EMU requires reaching a consensus among participants on the goals of monetary policy.

The goals of monetary policy are normally taken to be price stability, full employment, and sustainable economic growth; in some cases, exchange rate stability and stability of the financial system are also featured. Such a listing, however, obscures an important shift in policy-making as between the 1980s and the two previous decades. Control of inflation has generally been elevated above avoiding more-than-frictional unemployment, and real output targeting has given way to targeting nominal variables. 2/ Price stability has come to be regarded--appropriately in our view--as a necessary (albeit not sufficient) condition for the achievement of other economic goals, including sustainable economic growth. Consistent with this theme, there would appear to be broad agreement that a European System of Central Banks, or EuroFed, should have an explicit mandate to pursue price stability. Moreover, to give "teeth" to this commitment, some analysts have proposed giving the EuroFed substantial independence and prohibiting it from granting credit to the public sector.

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1/ Delors Committee Report (1989).

2/ Polak (1988).

What is less clear is how policy-making authorities should respond to developments in current accounts, and how they should frame their exchange rate objectives.

Historically, not all potential members of an EMU have given the same emphasis to current account balance relative to other goals. Masson and Melitz (1990) highlight the instructive comparison between France and the Federal Republic of Germany. Over the 1963-88 period, the average current account imbalance relative to GNP was -0.4 percent for France and 1.2 percent for Germany. 1/ In the years since 1986, France's current account was in virtual balance, while Germany's was in large surplus, attaining levels of about 4 percent of GNP. 2/ On the side of inflation, French and German performances have been very close since 1987--around 3 percent per year (using GDP deflators); not so over the longer 1950-88 period, when German inflation averaged close to 4 percent, versus roughly 7 percent for France. Further liberalization of European capital markets--by rendering it easier to finance intra-European external imbalances--could make more important any inter-country differences in the weighting of current-account objectives. In this connection, Giavazzi and Spaventa (1990) document the flow of capital within the EMS over the past three years from low-inflation countries to countries where inflation and nominal interest rates are higher (Italy and Spain). Despite significant sterilization of reserve increases, domestic demand has grown relatively rapidly in the high-inflation countries and their current account positions have deteriorated. Yet these current account deficits have been over-financed by capital inflows. 3/ There is also the matter of Europe's aggregate current account position, which could well be a factor influencing a future ECU/U.S. dollar or ECU/yen exchange rate. The current account position for the industrialized countries of Europe as a group was approximately balanced last year, but there is no compelling reason for it to remain so in the future.

What then should be the attitude of authorities to current account imbalances? Several writers--ourselves included--have argued that a differentiated approach to current account imbalances is warranted. 4/ Nonzero current account positions arise from a variety of sources, some of which are "good" and require no intervention, and some of which are "bad" and do require intervention. For example, an imbalance that arises from

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1/ Without regard to sign, the average absolute values of these imbalances for the same period were 0.8 percent of GNP for France and 1.5 percent for Germany.

2/ German Economic, Monetary, and Social Union (GEMSU) is expected to contribute to a reduced German external imbalance in the period ahead.

3/ As noted by Giavazzi and Spaventa (1990), a key factor in the direction of capital flows has been the market's apparent expectation that exchange rates in the higher-inflation countries will remain fixed, and will not offset the lure of higher nominal interest rates.

4/ Frenkel and Goldstein (1990).

reversible inter-country differences in the age distribution of the population--which in turn yield different life-cycle induced private saving patterns--is likely to be benign. In contrast, an imbalance that reflects unsustainable borrowing abroad to finance a consumption spree should surely be placed in the malign category. We would not want to pretend that these distinctions can be measured with great precision. Nevertheless, we see merit in a framework that would consider at least the following three factors in an evaluation of current account imbalances: first, whether the fiscal position is appropriate (in terms of both the level and composition of government spending, as well as the structure of taxes and borrowing used to finance the budget); 1/ second, whether increased investment associated with the external imbalance can be expected to provide a rate of return that exceeds the cost of borrowing (including externalities); and third, whether any increased consumption associated with the imbalance is temporary and desirable for purposes of intertemporal consumption-smoothing.

The bottom line of this differentiated approach to current account imbalances is that one needs to know the origin of an imbalance before one can decide both if it needs correction, and if so, how to correct it. In addition, there is the question of how any increased global need for saving should be accounted for in individual-country or regional policy decisions about current-account imbalances.

Next, consider the role that exchange rate stability should play in the design of monetary policy. This subject really merits a full paper onto itself but here we will be content to focus on: (1) exchange rate management vis-à-vis non-EMU currencies; (2) loss of the nominal exchange rate as a policy instrument; and (3) the choice between rapid and gradual approaches to EMU, with hard and soft exchange rate commitments, respectively.

On other occasions, we have argued that a tri-polar exchange rate system, where exchange rate commitments were "looser" and "quieter" across the poles than within regional currency areas, represents a feasible and desirable evolution of the international monetary system. 2/ Several of the arguments for such a system are directly relevant to how an evolving EMU might react to exchange rate movements outside the union. In brief, the main points are as follows: (1) an exchange rate system which has as its regional nominal anchors, three, relatively independent, central banks--each committed to price stability--is not conducive to policy "blueprints" (of say, the Williamson-Miller (1987) variety) that require monetary policy in the anchor countries to give first priority to keeping exchange rates within loud target zones; (2) real exchange rates across the three poles need to change to some extent anyway to reflect changes in real economic conditions over time; (3) better disciplined monetary and fiscal policy within each of

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1/ Expenditures should reflect social needs and financing should take account of optimal tax smoothing and burden-sharing across generations.

2/ Frenkel, Goldstein, and Masson (1989).

the currency areas would go a long way toward establishing more disciplined exchange markets across the poles; (4) intervention to manage exchange rates across the poles--be it in the form of official statements on the desirable direction of exchange rate movements, or of concerted, sterilized exchange market intervention, or--in the last resort--of coordinated adjustments in monetary policy--should be saved for cases where there is strong evidence of bubbles or large misalignments in exchange rates. In order to avoid any misunderstanding, we emphasize that this is not a call for return to "benign neglect" in the management of major-currency exchange rates. On the contrary, we regard a reasonable degree of exchange rate stability for key currencies as a public good for the system. Our argument instead is that the stabilizing effect of any official exchange rate commitment on expectations depends on its credibility. A looser commitment across the poles wherein authorities "keep their powder dry" for large, clear-call misalignments and do not claim that the primary assignment of monetary policy is for external balance, should be more credible than a (nominally) tighter and louder commitment. But the same logic also points to tight, loud exchange rate commitments within currency areas--one of which is an emerging EMU. Here, the incentives for stabilizing exchange rates are greater--because these economies are more open, because trade flows among union members account for a large share of members' total trade, because exchange rate stability is closely linked to larger, regional integration objectives, and because there are larger gains in anti-inflationary credibility to be had by "tying one's hands" on monetary policy via exchange rate fixity.

So much for managing the union's exchange rate vis-à-vis other major currencies. What about the more pressing issue of managing exchange rates within, and on the way to, monetary union?

One key factor relates to the consequences of losing the nominal exchange rate as a policy instrument. Economic theory suggests that the types of shocks hitting an economy (monetary versus real) should be an important factor in the choice of an exchange rate regime. 1/ The potential problem of a monetary union is adjusting to country-specific real shocks. Here, three questions need to be addressed. First, are the real economic shocks that typically hit European economies industry-specific or country-specific? If they are industry-specific and if potential EMU members have a diversified-enough industrial structure, then it is possible that these shocks largely cancel-out at the country level; this would of course make loss of the nominal exchange rate less costly. Alternatively, if shocks are predominantly country-specific, potential difficulties are obviously greater. A second question is whether the increased competition in goods and factors markets associated with 1992 will increase the downward flexibility of money wages and prices in Europe. 2/ If so--and we don't discount this possibility, it will be less costly to achieve needed changes

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1/ Aizenman and Frenkel (1982).

2/ Viñals (1990).

in real exchange rates via changes in internal wages and prices. <sup>1/</sup> Question number three is whether a federal fiscal authority that automatically adjusted a country's tax and transfer payments in the event of country-specific real shocks could act efficiently as a cushioning device-- and in a roughly budget-neutral fashion for the union as a whole. As is well-known, this kind of tax and transfer system operates in the United States, where it has been estimated that it offsets roughly 40 percent of region-specific income shocks. <sup>2/</sup> The more confident one can be that the answers to the above three questions are "yes," the less concerned can monetary authorities afford to be in embracing greater (nominal) exchange rate fixity on the path to EMU. Suffice to say that these three questions also constitute a fertile area for further empirical research.

Assume, in keeping with the spirit of EMU, that a judgment has been made to make use of the nominal exchange rate as a policy instrument only in "exceptional circumstances." As recognized in the Delors Report and in other studies, this still leaves unanswered the key issue of what types and "staging" of exchange rate regimes would be desirable for the transition to EMU. For our purposes, it is sufficient to review briefly two of the possible options.

One option would be to move rapidly to EMU itself, that is, to a common currency (e.g., the ECU) and to a central monetary authority (e.g., the EuroFed). This would carry a number of attractions. First, it gives maximum credibility to exchange rate stability by eliminating exchange rates within the union. A common currency is harder to "undo" than a commitment to "irrevocably fixed" exchange rates and market participants presumably know it. Second, a common currency allows EMU participants to obtain more of the efficiency gains associated with moving closer to one money than do "softer" exchange rate options. <sup>3/</sup> Third, a central monetary authority can in principle avoid the negative externalities associated with beggar-thy-neighbor policies taken by competing national monetary authorities. And fourth, a central monetary authority may be able to implement monetary control more effectively than individual national central banks--because the demand for money in the wider area may be more stable under open capital markets and full financial liberalization than are individual-country money demands. In this connection, Kremers and Lane (1990) have recently found (using a two-step error correction model) that a stable, aggregate demand for narrow money can be identified for the group of countries participating

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<sup>1/</sup> An interesting question in this connection is how European trade unions and business associations will respond to greater competitive pressures.

<sup>2/</sup> Sachs and Sala-i-Martin (1989).

<sup>3/</sup> Thygesen and Gros (1990) have argued that transaction costs, incentives to practice price discrimination, and the need for international reserves will all be lower with a common currency than with irrevocably fixed exchange rates.

in the ERM; in fact, this aggregate function is more satisfactory in some respects than comparable demand-for-money functions in individual countries. The intuitive explanation which they offer for this finding is that the improved performance that comes about from capturing currency substitution and portfolio diversification effects in the aggregate equation more than makes up for the reduced performance associated with imposing the same money-demand parameters on all countries.

On the negative side of the ledger, there are two concerns about a rapid move to EMU. One is that the participating countries will not be "ready" for a common currency or a common monetary policy--be it because of inadequate convergence of economic performance (particularly of inflation), or because of inadequate consensus on the goals or framework for monetary policy, or because of inadequate experience with common institutions. To some observers, this lack of readiness calls either for a "two-track" approach, where the fast track is limited to a subset of potential members who already are ready in terms of convergence of economic performance, or for waiting together until a wider group of members is ready. A second objection is that an administrative, centralized approach to currency and monetary management will result in average--or even worse, collusive, lower-than-average--performance; in contrast, a "competitive" approach--so the argument goes--would allow the market to converge on "the best in the Community." 1/

A second option is to have a slower transition to EMU, characterized (1) by the co-existence of a federal monetary authority and national, central banks; and (2) by a looser commitment to fixed exchange rates. This option clearly provides more scope for "learning by doing" and for making monetary policy more "accountable" to national governments. But as critics of the gradual approach point out, such a strategy cannot escape the constraint that only two of the following three objectives can be obtained simultaneously: open capital markets, fixed exchange rates, and independent monetary policy. With capital controls all but gone and with increased opportunities for diversification of currency portfolios, a commitment to truly fixed exchange rates will be credible only if monetary policy coordination--ex ante and ex post--is tighter than in the past. Following the arguments of Canzoneri and Diba (1990), an increase in currency substitution may not imply a need for larger adjustments in interest rates--since demands for close substitutes can be equalized with smaller price adjustments than for imperfect ones. But the very liberalization processes that give rise to increased currency substitution, along with any destabilizing speculation, will likely also call for more frequent recourse to coordinated interest rate adjustments; otherwise, national monetary control is apt to be rendered less effective. A related challenge thrown up by the co-existence of central and national monetary authorities, and by a desire to introduce more symmetry of adjustment into the system, is that the "rules of the game" may become more difficult to define than in the existing

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1/ U.K. Treasury (1989).



(asymmetric) EMS. Not only does the assignment of responsibilities have to be clearly understood, but also that assignment has to respect the primacy of price stability as a goal of EMU. This need for tighter and more well-defined monetary policy coordination could of course be reduced by backing away from a rigid exchange rate commitment, but--so opponents argue--only at the cost of sacrificing some of the public good attributes ascribed to exchange rate stability--or even worse, of inviting repeated speculative attacks that would threaten the stability of the system itself. 1/

### III. Implementation of Monetary Policy

In this section, we move on to discuss three broad issues relating to the implementation of monetary policy: coordination versus autonomy, rules versus discretion, and the role of sterilized exchange market intervention.

Neither coordination nor autonomy should be seen as objectives in themselves. Instead, they are better regarded as facilitating mechanisms for obtaining better policy performance. Coordination is essentially a mechanism for internalizing the externalities that arise from quantitatively significant "spillover effects" of national policy actions. Autonomy, in contrast, relies on independent decentralized policy decisions at the national level to achieve policy objectives. As the postwar experience confirms, both coordination and autonomy are capable of producing good and bad outcomes depending on how they are used. 2/

Having said that, we see the ongoing process of financial liberalization, innovation, globalization, and securitization as strengthening the case for coordination--on at least three counts. First, the shift away from credit rationing and quantitative restrictions on lending means that the transmission mechanism of monetary policy falls more heavily on interest rates and exchange rates--the "competitive" variables most often the subject of beggar-thy-neighbor complaints. Coordination is a way of discouraging beggar-thy-neighbor practices. In this regard, it is relevant to note that the degree of conflict that exists in the transition to EMU is not irrelevant for prospects of actually achieving EMU. Second, and as suggested earlier, when there is a jump increase in currency substitution, it will be difficult to implement reliable monetary control at the national level without stronger coordination among monetary authorities. Third, the problem of systemic risk does not lend itself easily to an autonomous, competitive approach. We think this point is particularly relevant to Europe of 1992 and beyond. In an environment where there are increasing competitive pressures in financial services, universal banking, increased inter-country correlation of equity price movements, and a desire

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1/ Giovannini (1990) emphasizes the difficulties of conducting monetary policy under open capital markets when there is no credible commitment to exchange rate fixity.

2/ For specific examples, see Frenkel, Goldstein, and Masson (1989).

on the part of monetary authorities to establish or to maintain anti-inflationary credibility, it would not be surprising if some financial institutions experienced difficulties. A national monetary authority might act to "contain" such difficulties by providing emergency liquidity support or by activating official or private deposit insurance schemes. However, official "safety nets," like other types of insurance, raise moral hazard issues--in this case, the encouragement to undertake an unduly high share of risky activities, with unfavorable consequences for the public sector's liability. This problem could be reduced if financial institutions maintained adequate capital requirements and/or if access to deposit insurance went hand-in-hand with restrictions on institutions' activities. But in a world of financial liberalization, any single country's attempt to impose stiffer regulatory standards could result merely in firms fleeing to countries with more lax standards, i.e., regulatory arbitrage. A coordinated approach to regulation can accomplish what a competitive approach cannot. <sup>1/</sup> The recently concluded Basle Agreement on risk-weighted capital standards for G-10 commercial banks is a case in point.

This brings us to the familiar issue of rules versus discretion, which would need to be addressed whether a coordinated or competitive approach to monetary policy was selected. Those who favor policy rules make essentially three arguments. First, rules are a viable mechanism for imposing discipline on economic policy-makers who might otherwise manipulate the instruments of policy for their own objectives and to the detriment of the public. This theme is underscored in the burgeoning literature on "time inconsistent" policies. <sup>2/</sup> This literature illustrates how in the absence of a mechanism for pre-commitment of policy choices (i.e., a rule), discretionary period-by-period policy choices will result in an inefficiency; in particular, when real variables depend on nominal surprises, discretionary policy will produce a higher average rate of inflation than is necessary--with no compensating increase in real output. Second, rules can reduce negotiations costs and burden-sharing conflicts. Kenen (1987), for example, has argued that if there is an excess demand for coordination, it should be eliminated not by increasing the supply of coordination--but rather by reducing the demand for coordination via rules. Third, rules are regarded as enhancing the predictability of policy actions and thereby improving the private sector's ability to make informed resource allocation decisions.

These arguments in favor of policy rules are powerful, but their immediate operational attractiveness is blunted by two considerations--both of which are relevant to an emerging EMU. One is that rigid rules that

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<sup>1/</sup> Key (1989) argues that a competitive approach to deregulation may be chosen precisely because it establishes incentives that lead to convergence on a minimal set of regulations; at the same time, the danger of the competitive approach is that convergence may occur at a level that is below the social optimum.

<sup>2/</sup> Kydland and Prescott (1977), Calvo (1978), Barro and Gordon (1983).

don't adapt to major changes in the operating environment run the risk of worsening policy performance. The weakening in many countries of the link between narrow monetary aggregates and the ultimate goals of monetary policy in the face of large-scale financial innovation and institutional change is a leading case in point. 1/ In recognition of these changes in the operating environment, several prominent supporters of policy rules have incorporated trend changes in velocity into their money supply or national-income rules (what we might call "evolutionary" rules) 2/--while several monetary authorities have indicated that they now employ a more "eclectic" approach to monetary policy (where the behavior of monetary aggregates is taken into account along with a set of other variables). 3/ A second consideration is that rules will impart greater discipline to policy only to the extent that penalties for breaking the rules are significant enough to ensure that the rules are followed. The sanctions available against sovereign nations for breach of economic-policy commitments should not be exaggerated.

A third key issue surrounding the implementation of monetary policy concerns the role of exchange market intervention. Controversy regarding intervention applies almost exclusively to sterilized intervention, that is, to intervention which is not allowed to affect the monetary base. The seductive appeal of sterilized intervention--especially in a situation where capital controls are being phased out--is that, if effective, it would allow authorities to manage exchange rates while monetary policy was seeing to internal balance. This should be differentiated from using the pattern of non-sterilized intervention as an "alarm bell" for making coordinated adjustments of monetary policies--since in this case intervention is acting as an arm of monetary policy and not as an additional policy instrument. 4/

Sterilized intervention is posited to affect exchange rates through two channels. One is via portfolio effects. Specifically, by altering the relative outside supplies of (imperfectly substitutable ) assets denominated in domestic and foreign currency, intervention changes the risk characteristics of the market portfolio and induces changes in exchange rates. 5/ The second channel is the signalling effect. The line of argument here is that exchange rates reflect expectations of future macroeconomic policies, that monetary authorities have inside information on future monetary policy, and that they can credibly signal future monetary

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1/ Freedman (1990).

2/ McCallum (1990). A key task for empirical research is to illustrate how these evolutionary policy rules would have performed in a variety of models and circumstances--so that a relevant "counter-factual" can be constructed; this counter-factual could then be employed as a standard, against which historical, discretionary policy can be evaluated.

3/ Blundell-Wignall, et al. (1990).

4/ Giovannini (1990).

5/ Branson and Henderson (1985).

policy via intervention. 1/ Intervention is said to be a good signalling device because authorities are "putting their money where their mouth is," because (if sterilized) signals can be given without affecting the real economy, and because intervention can be displayed rapidly and around the clock. 2/

The last official study of intervention, namely, the Jurgensen Report (1983), concluded that sterilized intervention was a relatively weak instrument of exchange rate policy. An examination of the effectiveness of intervention over the 1985-87 period was recently made by Obstfeld (1990). 3/ His main conclusions can be summarized as follows. First, the dominant policy determinants of broad exchange rate movements of recent years have been monetary and fiscal actions, not sterilized intervention. Second, except possibly in 1987, the scale of intervention has been too small (relative to huge outstanding asset stocks) to have significant portfolio effects. Third, the signals sent by intervention have been effective only when they have been backed up by the prompt adjustment of monetary policies, or when other events (for example, unexpected trade balance developments) have coincidentally altered market sentiment. Finally, the most convincing intervention operations have been "concerted" ones. This last conclusion is also consistent with the results of the only existing empirical study that had access to daily intervention data for the 1985-87 period. Specifically, Dominguez (1989) found that concerted intervention had a larger and longer-term influence on exchange rate expectations than did unilateral intervention.

From all this we conclude that while sterilized intervention may be helpful at times in calming disorderly foreign exchange markets or in signalling authorities' views about the appropriateness of market exchange rates, it is not likely by itself to be powerful enough to extricate monetary policy from internal-external policy dilemmas, that is, it would not be powerful enough to stabilize exchange rates when there is little convergence in members' monetary policies. Within these limitations, one can probably maximize the impact by implementing intervention in a concerted, coordinated way.

#### IV. The Search for Fiscal Discipline

While this is a paper about the design and implementation of monetary policy, we feel compelled to offer a few remarks on fiscal policy as well. Indeed, a striking lesson of the 1980s is that when fiscal policy is

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1/ Mussa (1981).

2/ Some observers are skeptical about the signalling effect of intervention because they doubt whether gains and losses on official intervention operations will be subject to much public scrutiny.

3/ See also the recent survey of empirical evidence on intervention by Edison (1990) which reaches similar conclusions.

undisciplined and is working in a direction opposite to that of monetary policy, efforts to promote price stability, effective external adjustment, and exchange market stability will be seriously handicapped. The intensive discussion that has already gone on about the need for fiscal discipline in an emerging EMU--and on how best to get it--suggests that this issue is just as relevant to the European policy dialogue as to that in North America.

There are three potential mechanisms for encouraging greater fiscal policy discipline: (1) the exchange rate regime; (2) the market; and (3) peer group surveillance. 1/

Experience is not kind to the view that the exchange rate regime by itself can enforce discipline on fiscal policy. After more than ten years of operation--and with a clear progression toward greater fixity of exchange rates, there is little evidence of fiscal policy convergence in the EMS. Monetary policy convergence, yes--but not fiscal policy. In a similar vein, the North American experience with much greater exchange rate flexibility hardly suggests that this exchange rate regime can consistently rein-in fiscal policies. As indicated in some of our earlier work, it is not difficult to construct theoretical examples where the exchange rate regime sends either a "false signal," or no signal at all, about the need for fiscal adjustment. 2/ Typically, this comes about because the higher interest rate associated with fiscal expansion induces a capital inflow that either prompts a loosening of monetary policy (to keep the exchange rate within its target)--or simply makes the fiscal deficit easier to finance.

What then about the discipline imposed by "the market?" Such market discipline is usually said to operate via two channels. One is the higher cost of borrowing associated with consistent, fiscal imprudence--as the markets exact an increasing risk premium to reflect lower expected repayment. At some point, markets could even impose their ultimate sanction, by refusing to lend altogether to the unrepentant borrower. The second channel of market discipline is via pressures for tax harmonization. In short, a government that spends a lot will eventually have to tax a lot; but high taxes will, in turn, induce firms and individuals to move to jurisdictions with lower taxes. Declining tax revenues will then force tax harmonization, and finally, a halt to excessive spending.

For market discipline to work, five conditions need to be satisfied.

First, the market must have accurate and comprehensive information on the size and composition of the debtor's obligations, so that it can make a valid assessment of debt-servicing obligations relative to ability-to-pay. Those who feel that this is a problem that applies solely to developing-

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1/ A fourth mechanism is national, self-imposed mechanisms that differ from country to country. Gramm-Rudman-Hollings legislation in the United States is one clear example of this kind of mechanism.

2/ Frenkel and Goldstein (1986, 1988).

country debtors might want to examine the case of the financial crisis facing New York City in the mid-1970s. Credit-rating agencies can of course assist in this information processing task, but they need to be cautious since a rating change can become a self-fulfilling prophecy. In addition, debtors may not have incentives to reveal unfavorable information before mandated reporting dates.

A second condition is that there must not be any implicit or explicit guarantee of a bail-out. For if there is the expectation of a bail-out, then the interest rate charged will reflect the creditworthiness of the guarantor--not that of the debtor. The market's perception of a bail-out is sometimes cited as a reason why interest rate spreads on bank loans to developing countries in the 1970s were so slow to rise. 1/ It is of course possible for the overseeing fiscal authority to issue a "no bail-out pledge." The problem is that it may be difficult to make this pledge credible in the absence of a history where troubled debtors were in fact not bailed-out.

Condition number three is that the financial system must be strong enough such that a given debtor is not regarded as "too large to fail;" if other financial institutions are large holders of the troubled debtor's obligations, it will be harder to exercise discipline.

A fourth condition is that the borrower's debt not be monetized by central bank purchases. This is because the resulting erosion of the real value of the debt will make it difficult for the market to price it accurately.

Yet a fifth condition--which applies specifically to the tax harmonization channels--is there must be neither high costs of mobility, nor provision of public services that compensate for tax differentials. 2/ If mobility costs are high, individuals and firms are less likely to "vote with their feet" when taxes are raised. If better public services are offered in high tax districts, then high taxes do not provide an incentive to leave.

To this point, the empirical literature on market discipline is quite limited. From the viewpoint of an emerging EMU, perhaps the most relevant work is that dealing with common currency areas which have federal fiscal systems--and where there is no explicit or implicit guarantee of a bail-out for fiscal adventurism at the local level. The United States and Canada fulfill these requirements. 3/ A recent analysis of the relationship

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1/ Folkerts-Landau (1985).

2/ Eichengreen (1990).

3/ A dissenting view is that the experience of U.S. states and of Canadian provinces is of only limited relevance for the prospect of fiscal discipline in an EMU because these states and provinces can exert much less pressure for bail-outs or monetization than would individual member-countries in an EMU.

between interest rate spreads and debt burdens for U.S. states was undertaken by Eichengreen (1990). In brief, he finds a weak, positive relationship between debt burdens and the cost of borrowing; interesting enough, there is no evidence that of a nonlinearity that would make the rise in borrowing costs accelerate at very high debt levels.

Even if the empirical evidence linking borrowing costs to fiscal irresponsibility were stronger than it is, this would give us only half the picture. The missing half is evidence that higher borrowing costs induce governments to correct fiscal policy excesses. To our knowledge, no tests of that latter linkage--be it in form of government reaction functions or otherwise--are yet available.

Finally, fiscal discipline might be encouraged by peer group surveillance. As is well known, this can take a number of forms. One possibility would be a fiscal policy rule that put say, a ceiling on each participant's fiscal deficit. <sup>1/</sup> The main difficulty with rigid fiscal policy rules is that they may not take adequate account of relevant inter-country differences--in private savings rates, in outstanding debt stocks, in the uses to which government expenditures are put, in past credit histories, etc. In addition, as suggested in our earlier discussion of rules versus discretion, there may be few sanctions that can be imposed on noncomplying members. For these reasons, peer group surveillance typically takes place in a voluntary, discretionary format. But this mode of operation faces its own obstacles: fiscal policy is inflexible (at least relatively to monetary policy); it can operate with long and variable lags that depend in good measure on the pace of legislative actions; and the effects of fiscal policy on macro-variables of interest hinge on what kind of fiscal action is taken (taxes versus expenditures, expenditures on tradables versus nontradables, taxes on saving versus taxes on investment, etc.). In addition, surveillance exercises invariably employ multi-indicator methods, where the tendency of different indicators to point in different directions gives considerable scope for discretion in policy diagnosis and prescription.

The likelihood that no single mechanism can be relied upon to yield fiscal discipline means that a broad-based approach that leans both on markets and on surveillance will be called for. The transition to EMU will go a lot smoother if fiscal policy can be made to work with monetary policy in achieving EMU's basic economic goals.

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<sup>1/</sup> Such a rule on budget-deficits appeared in the Delors Committee Report. A more recent EC Commission Report (1990) argues instead for voluntary coordination and surveillance.

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