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Fiscal Constraints of a Fixed Exchange Rate Regime

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Abstract

The paper considers whether the implementation of a fixed exchange rate regime requires or implies binding constraints on fiscal policy. The main conclusions are that, from a country perspective, the effective constraint is on the degree of monetary financing, which bears an uncertain relationship to the size of the budget deficit; that, from a systemic perspective, the financial stability of the currency area can be ensured by making the monetary and fiscal authorities independent of one another; and that the case for coordination of fiscal policies--whatever its merits--is not enhanced by the creation of a fixed exchange rate regime.

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Summary

The paper considers, from both a country and a systemic perspective, the question whether the implementation of a fixed exchange rate regime requires or implies binding constraints on fiscal policy in the case of countries that have already achieved comparable rates of inflation. From the perspective of individual countries pursuing hard currency policies, the main finding is that a wide range of deficit and debt ratios can be, and indeed has been, consistent with stable exchange rates. This consistency is predicated, however, on higher deficits not being associated with more monetary financing. The paper further argues that considerations of external balance in themselves should also have little bearing on the setting of fiscal policy once the hard currency regime is established. This is the case mainly because of the inadequacies of the current account as an objective for policy in general--particularly in a regime with a nominal anchor for inflation.

From the perspective of preserving the monetary stability of a fixed exchange rate system, the paper finds that the shift to such a system results in an easing of some traditional constraints on fiscal policy. This easing, however, is essentially offset by the emergence of new constraints--constraints innate to a hard rather than a flexible exchange rate regime. There is therefore little reason to think that the monetary stability of a fixed exchange rate system requires any restrictions other than the generally accepted one of insuring the independence of monetary policy from the fiscal policies of member countries.

Finally, the paper considers the argument that a move to permanently fixed exchange rates within Europe should be associated with increased fiscal coordination among member countries in order to ensure an "appropriate" fiscal-monetary mix for the membership as a whole. The paper acknowledges that there is a role for coordination in limiting the impact of one country's fiscal behavior on the level of real interest rates and investment throughout the community. However, this role exists with or without fixed exchange rates of monetary union. It is not clear therefore that monetary union as such warrants radical changes in the mechanisms for coordination ("binding rules"). Skepticism on this issue is reinforced by a consideration of the effect fixed exchange rates might have on the incentives for beggar-thy-neighbor fiscal policies. Such incentives exist under both fixed and flexible exchange rate regimes, in different forms. However, under certain plausible assumptions, the problems resulting from noncooperative fiscal policy would appear to be weaker rather than stronger when exchange rates are irrevocably fixed.

I. Introduction

The drive toward monetary unification in Europe has brought with it significant differences of view on the question of whether formal constraints on participating countries' fiscal policies are required in order to achieve greater stability of exchange rates and, ultimately, monetary union. Positions range from those who argue that fiscal policy should continue to be left entirely to national authorities, with financial markets allocating funds and disciplining borrowers in public and private sectors alike, to those who believe that a monetary union cannot work without some centralized administrative control over member governments' budgets.

The issues raised in this debate are complex, and have been made more so by differing premises regarding the desirable degree of monetary integration; the precise character of the postulated monetary regime; the time frame within which it is to be established; and the extent to which participants' inflation rates are or are not assumed to have converged in the early stages of unification. This paper does not attempt to cover every conceivable angle. First, it does not discuss the merits or otherwise of moving from flexible or managed floating to fixed exchange rates. The intention to move in this direction is taken as given. Nor does it express a view as to whether monetary union with permanently fixed exchange rates, if not a common currency, is the most appropriate destination to aim for. This, too, is assumed to be the ultimate goal. We therefore focus on what fiscal imperatives should or would face European countries (in a context of free capital movements), both en route to monetary union--during which countries are assumed to peg their currencies to an anchor currency (the deutsche mark) 1/--and once union is achieved. Second, and at least equally important, we do not dwell on the problem of how to achieve the requisite degree of inflation convergence. Indeed, we assume that the countries in question have, to all intents and purposes, achieved a broad convergence in inflation rates--as is the case at present for most of the narrow-band members of the exchange rate mechanism (ERM) of the European Monetary System. We make this assumption not because we think the problems involved in bringing inflation rates down, where necessary, are simple or unimportant, but rather because these problems have been extensively analyzed elsewhere and because they are quite distinct from questions concerning the long-term role of fiscal policy in a fixed exchange rate system or monetary union. Third, it should perhaps be made explicit that this paper is about the fiscal implications of monetary arrangements (be it a hard currency policy or a monetary union). It is not

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1/ This is described as the "hard currency option."

about fiscal policy per se, e.g., about the desirability of reducing deficits for reasons of efficiency or international competitiveness or so as to minimize the fiscal exposure of the members of a monetary union.

Given this framework, the constraints on fiscal policy arising from a fixed exchange rate regime are addressed from two perspectives. First, the issues are analyzed from the perspective of a country following a hard currency policy (Section II). The basic question here is, given a commitment to a hard currency policy, what are the constraints on fiscal policy that devolve from that commitment. Our view is that these constraints are less binding than commonly supposed, particularly once the commitment is made credible to financial markets. It is argued that participating countries can meet the "no monetization" requirement for exchange rate stability with very different levels for the budget deficit and public sector indebtedness. In this sense, neither individual governments nor the architects of a fixed exchange rate system should regard an exchange rate commitment as incompatible with a significant degree of fiscal autonomy. Nor, we suggest, should this autonomy necessarily be compromised by a perceived need to maintain external balance.

The analysis in Section II assumes that the authorities are and will remain committed to defending the parity. This is not necessarily a prudent assumption from the point of view of those seeking to design a viable fixed exchange rate system. Section III therefore looks at what constraints (if any) one might wish to impose on member countries' fiscal policies from the point of view of ensuring the long-run viability of the system as a whole. We first consider the claim that there would be increased incentives in a fixed exchange rate regime for fiscal authorities to pursue irresponsible budgetary policies and discuss whether such abuse would threaten the monetary stability of the system. Second, we look critically at the argument that centralized budget rules are needed to override the externalities which uncoordinated policies would generate in a fixed exchange rate regime. Section IV draws together our conclusions.

The paper addresses directly issues raised by the Delors Committee's report (1989) on economic and monetary union. However, one of the reasons identified by the authors of this report as to why "binding rules" on national fiscal policies would be required to sustain the path to monetary union is in order to force countries with high inflation rates, who would otherwise be unable to achieve the required disinflation and hence maintain exchange rate stability, to pursue fiscal adjustment.

This consideration is of course excluded from our analysis because of the assumption regarding inflation convergence. Given its importance, however, we take the opportunity here to make two observations on this aspect of the Delors report. First, it is surely true that high inflation is often the result of excessive budget

deficits that are financed--whether out of necessity or expediency--by money creation (the inflation tax). In such cases, reduction of budget deficits to the point at which monetization can be eliminated (or brought into line with partner countries) will clearly be a prerequisite for exchange rate stability. However, it is not clear that this stabilization either requires or favors determining fiscal targets at a supranational level. The governments concerned have, after all, chosen to participate in the fixed exchange rate regime, presumably on an assessment of their own national interest, and in the knowledge that participation will first require control of inflation. If they were unwilling to take the necessary steps to achieve this, it is hard to see why they would have committed to participation in the first place. Moreover, in the transitional stages to monetary union, participating countries are still subject to the exchange rate discipline whose absence in a monetary union is at the root of much of the case for centrally-determined fiscal constraints. Consequently, there should be no need for binding rules during the transition. Secondly, even if it were accepted that centrally-determined fiscal constraints might be politically useful in bringing about inflation convergence, this would imply that such constraints should be part of the transition only and should be lifted once inflation convergence has been achieved. This, however, is not the view of the Delors Committee (1989) who envisage binding rules on fiscal policy as being an integral part of the final fixed exchange rate system (and ultimately of monetary union).

II. The Hard Currency Option: Inherent Fiscal Constraints

1. Monetary constraints

It has long been recognized that the two arms of macroeconomic policy--monetary and fiscal--are not entirely independent. Blinder and Solow (1973) demonstrated that purely bond-financed increases in the budget deficit are unsustainable and must eventually be reversed or monetized. The consequences of the government's financing constraint were explored further by Sargent and Wallace (1981), who showed that--if there is an upper limit on the stock of debt (per capita) which the market will bear, and if the prevailing interest rate exceeds the growth rate of the economy--the authorities will eventually lose control of the monetary base (and hence inflation) unless fiscal policy is subordinated to monetary policy. 1/ Since budget deficits must be financed either by bond sales or money creation, simultaneous constraints on both sources of finance must imply a constraint on deficits themselves.

A number of commentators (see, for example, Tanzi and Ter-Minassian (1987), Dornbusch (1988a,b), Gros (1989), Roubini and Sachs (1989)), have drawn attention to the potential implications this analysis has for

1/ If the demand for high-powered money depends on the expected inflation rate, rather than income alone, then even temporary control of the monetary base becomes impossible without subordinate fiscal policy.

the fiscal policy of EMS members. Countries with large budget deficits are denied, or have highly restricted, access to revenue from seigniorage once they join the EMS and are obliged to maintain a rate of monetary growth in line with their partners. Hence, it could be argued, if they are to avoid unsustainable increases in their debt-GDP ratios, their budget deficits must be tailored accordingly. Fiscal policy is no longer a free instrument. As is well known, this constraint tends to be significant for very high inflation countries. In these countries, monetary financing of fiscal deficits often tends to be large, and other things being equal, proportional to the size of deficits. 1/ However, these are likely to be countries which--perhaps because their revenue base is narrowed by widespread tax evasion, or because of a history of financial and political instability--are up against the limit in terms of how much of their debt the market will bear; that is, they conform to the Sargent-Wallace type. If it were the case that prospective members of the hard currency regime would be faced with rising debt-GDP ratios as a result of loss of seigniorage, this would suggest that they, too, could soon reach the Sargent-Wallace constraint and be forced to tighten fiscal policy.

But how likely are they to hit this constraint in practice? One way to approach this question is to compare prevailing budget deficits with those that might be necessary to stabilize debt ratios in a hard currency regime. 2/ Following this approach, consider two extreme cases: France, which has the lowest debt-GDP ratio in the EMS; 3/ and Belgium, which has the second highest (after Ireland). Assuming that the income velocity of high-powered money is constant over time, it is possible to calculate the ratios of primary budget deficit or surplus (i.e. excluding interest payments) to GDP necessary to stabilize existing debt-GDP ratios for these countries, given plausible values for the main economic variables in a hard currency regime. This is done in Table 1, where we assume 3 percent real growth, 2 percent inflation and real interest rates of 5 percent. Under these assumptions, it would appear that France's budgetary position, not surprisingly, is already substantially better (its primary surplus larger) than would be required to prevent any rise in the existing debt-GDP ratio. This, combined with

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1/ Optimal inflation rates may depend in part on the structure of the tax system; see Guidotti and Végh (1989).

2/ Another is to look directly at the extent to which potential members currently rely on revenue from seigniorage, and compare this with what would accrue in a fixed exchange rate regime. An example is Gros (1989), who looks at the effects of EMS and financial market integration together, and concludes that only for Portugal and Greece might the losses be substantial. Cohen and Wyplosz (1989) make the point that, in principle, the members of a hard currency area could earn joint seigniorage by inflating relative to the rest of the world, and share the proceeds in such a way that no country would need to lose revenue.

3/ On the basis of net general government debt outstanding.

its comparatively low initial level of debt, would suggest that a country in France's position could retain a significant margin for maneuver on fiscal policy while adhering to the strict monetary constraints of a hard currency regime.

Table 1. Debt Stabilization in a Hard Currency Regime

Parameter	France	Belgium
V_H	15.30	12.30
n	.03	.03
ρ	.02	.02
r	.07	.07
$b/_y$	.38	1.25
Required $(d/_y)$	-0.4 %	-2.1 %
Actual $(d/_y)$ in 1988	-1.3 %	-1.9 %

Definitions:

V_H = Ratio of nominal GDP to base money (calculated as the average observed in 1984-88).
n = Growth rate of GDP.
ρ = Inflation rate.
r = Nominal interest rate.
y = Nominal GDP.
b = Net general government debt.
d = Primary general government deficit (negative sign indicates surplus).
$(d/_y) = (n-r+\rho)\frac{b}{y} + (n+\rho)/V_H$ (See Argy (1989) for derivation.)

More significantly, it appears that even a highly-indebted country such as Belgium would be able to stabilize its debt ratio at a level close to that currently prevailing with little or no reduction in its budget deficit. 1/ In addition, it could be argued that the very fact of joining a hard currency club would enhance the degree of integration

1/ In fact, the Belgian Government's strategy does involve a reduction in the deficit as a proportion of GDP over the medium term, so that the debt ratio could be expected to fall (see OECD (1989) for a description of the strategy).

between domestic capital markets and those in partner countries (by reducing exchange rate uncertainty). This could make Belgian government debt a closer substitute for financial assets elsewhere in the hard currency area and thereby enable a larger outstanding stock to be absorbed at "tolerable" interest rates.

What the arithmetic in Table 1 shows, in fact, is simply that it is quite possible to have very different (stable) levels of public sector debt and budget deficits alongside comparable rates of growth in the monetary base. The reason that Belgium and France would not see their debt destabilized by the rigors of a hard currency regime is that both countries have already all but eliminated their recourse to monetary financing (as has the Netherlands--another high-debt/high-deficit country--see Table 2). This is not to say that all high-debt countries wishing to stablize their exchange rate can be complacent about their fiscal positions. In some countries, it might only be feasible to make the necessary reduction in monetary financing by cutting the budget deficit itself. 1/ But it implies--and Table 2 confirms--that monetary and inflation rate convergence (hence exchange rate stability) can be consistent, both in practice and in principle, with a wide range of fiscal positions.

2. Current account constraints

Aside from domestic monetary constraints, fiscal policy is also often viewed as constrained by the need to keep the current account balance above some floor. Indeed, the existence of such a constraint is often thought to account for much of the close historical relationship between national savings and investment rates, despite capital mobility. That is, governments are viewed as having adjusted policies so as to minimize the gap between these otherwise largely independent variables (Bayoumi (1989)). Although the existence of such an external constraint does not hinge on the choice of exchange rate regime, this constraint is often viewed as particularly binding in the case of countries pursuing a hard currency policy because of the implications current account imbalances have for the core of the policy--the fixity of the exchange rate. Indeed, countries pursuing such policies do tend to keep a particularly careful watch on their external position, especially when the balance on current account is in deficit. This has been most evident in the case of France over the past few years, but applies to other members of the ERM with current account deficits as well. In this perspective, deficits are viewed as symptomatic of excess demand and underlying inflationary pressure; of future pressures on the exchange rate; and more generally of a country "living beyond its means". Accordingly, a key objective of fiscal policy is taken to be the need to constrain the current account above some floor--often taken to be balance.

1/ And no government, of course, can ignore the effects of its fiscal policy on longer-term economic performance.

Table 2. Selected Indicators for EC Countries

(1987-88 averages)

	CPI Inflation	General Government Deficit 1/	Net Debt	Current Account Balance 1/	Monetary Financing 1/2/	Exchange Rate Change (%) Vis-à-vis DM
Germany	0.7	1.9	23.1	4.0	zero	--
Netherlands	zero	7.3	53.8	2.0	0.2	0.1
Belgium	1.4	9.0	123.2	2.1	-1.0	-0.9
Ireland	2.7	7.8 3/	131.2	1.9	0.1	-4.2
France	2.9	1.5	25.7	-0.4	-0.1	-3.0
Denmark	4.3	-1.2	24.8	-2.5	-0.1	-1.4
U.K.	4.6	0.3	40.9	-2.0	-0.9	-0.7
Italy	4.9	10.9	91.5	-0.3	0.7 4/	-3.7
Spain	5.1	3.4	31.1	-0.6	0.3	-1.3
Portugal	9.6	n.a.	n.a.	-0.1	n.a.	-8.2
Greece	15.0	n.a.	n.a.	-2.3	n.a.	-10.6

Sources: OECD Economic Outlook, IMF International Financial Statistics; and staff calculations.

1/ Percent of GNP.
2/ Defined as change in Central Bank holdings of government securities.
3/ 1986 Q3-1988 Q3 annual average.

Almost all would agree that fiscal policy ought to be set in part with a view to avoiding excess demand, inflationary and exchange rate pressures, and long run solvency problems. What is less clear is the usefulness of a current account objective in this process. It is true of course that excess demand and inflationary pressures have traditionally led to a deterioration in current account positions, as indeed is to be expected on analytical grounds. However, current accounts are affected by a host of other factors as well--e.g., shifts in the productivity of capital or labor, demographic factors or portfolio preferences--that bear no simple relationship to the postulated policy concerns. For instance, it is not clear that an investment-induced deterioration in the current account is necessarily inflationary; nor does it have any clear implications for long-run solvency or national wealth (Ingram (1973)). Hence, there would seem to be little usefulness in simple current account rules to guide fiscal policy. Indeed, any such rules could well prove to be welfare-reducing--e.g., if an investment-induced worsening of the current account was choked-off through a tightening of fiscal policy, the result being a lower long-run capital stock (see Bean, 1989).

Leaving aside for the moment credibility issues (discussed below), current account objectives would seem particularly inappropriate for European countries participating in a hard currency arrangement, for two reasons. First, the hard currency option brings with it a stable, non-accommodating nominal framework for macro-management. 1/ Given this framework, the current account balance would be expected to lose much of the usefulness it may once have had as an indicator of deficiencies in nominal demand management. Second, the process of economic and financial integration underway in Europe is likely to have a major, if highly uncertain, impact on national saving and investment propensities. Thus, while any deficiencies in nominal demand management would still show up in current accounts, the noise in the relationship would be such that it would be preferable for policies to focus directly on the indicators of interest--inflation, consumption and savings, etc.--rather than the current account.

3. Credibility considerations

The foregoing suggests that adoption of a hard currency policy in a country that has achieved inflation convergence has no necessary implications for its fiscal "room for maneuver." This is a view which many would find counterintuitive. It could be argued, quite reasonably, that the problem with the analysis so far is that it does not take account of the intangible links between levels of indebtedness and current account balances, on the one hand, and confidence in the exchange rate objective, on the other. Confidence, or credibility, is a slippery concept: to the extent that it already exists, the impact of the so-called fundamentals on the exchange rate (or on the level of

1/ Provided the anchor country has such a framework, as Germany does.

interest rates necessary to maintain a given exchange rate) disappears; yet it may not be possible to establish credibility in the first place unless the fundamentals are in order. For instance, while prevailing debt levels might be viewed as acceptable by markets, they could, in the face of unfavorable shocks, be perceived as increasing the incentive for the authorities to breach the exchange rate commitment and raise the domestic price level: the larger the stock of debt the greater the returns from monetization (see Giavazzi and Pagano (1989)). As a result, governments may see themselves as having to accept constraints on fiscal policy as an investment in credibility--even where, in a deterministic world, no such constraints should exist.

A second, closely related reason for governments to apply prior restraint on fiscal policy is to forestall the emergence of "unacceptable" increases in interest rates. Interest rates are the residual element of policy in a hard currency regime, being forced to endure the brunt of the adjustment to unexpected developments. Indeed, insofar as demand management policies do not adjust fully to the change in currency regime, it can be expected that the variability of exchange rates is simply transposed on to interest rates. This increased variability is not without its costs, and governments may well wish to forestall such costs by taking steps to diminish the currency's exposure to shocks.

While such a view can be defended, a government committed to a hard currency policy would have to ask itself whether it would not be preferable--through a combination of repeated policy statements and determined use of interest rates--to "ride out" the exchange market pressures rather than continuously seeking to forestall them through more restrictive fiscal policies. The issues here are ultimately empirical, involving as they do a cost benefit analysis of the two strategies. Nevertheless, governments committed to a hard currency policy should perhaps not overestimate the risks on the interest rate side. Interest rates are not, in general, seen as having very large real effects on European economies. Moreover, these effects would presumably be even smaller under the postulated circumstances since given the commitment to a stable nominal macroeconomic framework, the rise in interest rates would be transitory and largely limited to short-term interest rates. This might well be a cost worth bearing if one considered that it could establish the underlying credibility of the exchange rate policy and hence diminish the probability of incurring such costs in the future. Secondly, it is worth noting that the country which has the longest experience with a hard currency regime free of capital controls (the Netherlands) is also the country which has experienced the least variability and the smallest differentials in interest rates vis-à-vis the anchor country (see Table 3). While this may be due in part to the Netherlands' strong current account position, the fiscal accounts have not been nearly as solid. Moreover, the 1986 fall in oil prices constituted a major adverse and asymmetric shock for that economy in relation to other countries participating in the ERM. The implications would seem to be therefore that adoption of a hard

Table 3. Behavior of Short-Term Interest Rates 1/

(Based on monthly data, Jan. 1985 - Aug. 1989)

	Own Rates		Differential vs. Germany	
	Average	Standard deviation	Average	Standard deviation
Germany	4.9	1.0	--	--
Netherlands 2/	5.4	0.9	0.6	0.5
Belgium	7.8	1.2	3.0	1.1
Ireland	10.3	2.3	5.5	2.4
France	8.6	1.0	3.7	0.9
Denmark	n.a.	n.a.	n.a.	n.a.
U.K.	10.6	1.6	5.7	0.8
Italy	11.9	1.4	7.0	1.2
Spain	10.9	2.2	6.0	2.0
Portugal	n.a.	n.a.	n.a.	n.a.
Greece	16.8	0.6	12.2	1.2

Source: IMF International Financial Statistics.

1/ Three-month interbank or Treasury bill rates.
2/ Up to July 1989 only.

currency policy, together with a willingness to adjust interest rates to whatever degree was required to maintain the exchange rate parity (as is the case with the Netherlands) can significantly lessen the interest rate risks confronting national authorities.

III. Designing a Fixed Exchange Rate System: The Need for Centralized Fiscal Discipline

1. Requirements for monetary stability

We have argued that financing constraints, whether of monetary or external origin, would not, in and of themselves, require a particular configuration of fiscal policies in countries pursuing a hard currency policy. A proponent of binding rules might respond that the arguments advanced--if they have any merit at all--apply only in the case of countries whose fiscal policies are seen by the markets to be clearly "under control." That is, though deficits and debt ratios may be very different, they must be seen to be on a stable or declining path. This has been more or less the case, in recent years, for the two high-debt, strong-currency countries referred to so far: Belgium and the Netherlands. A major concern of the Delors Committee, however, is that a shift toward fixed exchange rates, and especially toward monetary union, would ease the normal constraints facing national fiscal authorities. This easing could encourage policies which do not meet the "stability" criterion and could thereby undermine the system unless neutralized by centrally determined binding rules on fiscal policy, designed to preserve overall monetary stability.

The easing of the constraints could take several forms. One element would be the elimination of the currency premium in interest rates. This would result in a once-and-for-all, step decrease in the debt service burden, which might cause governments to let up on control of noninterest expenditure, for a period at least. Another would be the easing of the current account constraint (and, thus, at one remove, of the fiscal constraint) because of the reduced dependence of the exchange rate on current account developments as the exchange rate regime hardened. Thirdly, as was suggested earlier, the financial integration of Europe--running alongside and given further impetus by moves toward monetary union--would broaden and deepen the market for government paper, making funding of larger deficits feasible. Moreover, the very creation of a European Monetary Union (EMU) would imply increased solidarity among its members, raising the prospect of bail-outs if pressures on member states should become too severe (Isard (1989)). Taken together, these elements could be expected at least to slow countries' adjustment to adverse shocks and might even, in extreme circumstances, lead some into fiscal "adventurism." One would, of course, expect market discipline to counteract at least some of these tendencies. However, in the view of the proponents of binding rules, market discipline could not be expected to be as effective on an ex ante basis as the discipline provided historically by the fear of devaluation. There is, therefore, a built-in threat of increased fiscal laxity

and hence, ultimately, of monetary accommodation that can only be countered by imposing constraints on the fiscal policies of member countries.

While many of the points in this argument are valid, they do not reflect the whole story. Although the adoption of a hard currency policy can be expected to lower real interest rates and hence ease fiscal constraints in one respect, that easing is the result of the Government's having accepted, in a form credible to the market, another constraint--not to inflate their problems away. There is, in the end, no net easing of discipline. To assume otherwise is to suppose that markets would accept a lower risk-adjusted expected return from governments that adopt a hard currency policy than from those that do not, which is implausible. Similarly, while the discipline of the exchange rate would obviously disappear in a monetary union, that symbol of the quality of countries' policies would be replaced by others, e.g., credit ratings and interest rate spreads. In the same vein, the fact that financial integration broadens the market for debt does not mean that governments would be able to be any less responsible--in the sense of pursuing a more lax fiscal strategy. On the contrary, since domestic residents will face increased possibilities for placing their savings abroad, governments may end up having to compete for funds on the basis of a sound fiscal reputation.

Similarly, the evidence used to suggest that market discipline might be insufficient (Lamfalussy (1989), Thygesen (1989)) is not particularly convincing. It is not clear, for example, that the fact that there is only a 50 basis point differential in the borrowing rates of Canadian provinces (despite differences in fiscal positions that approach those of the EC) is relevant to the present situation in the EC. The Canadian provinces achieved monetary unification many years ago, and the differential in their borrowing rates today is unlikely to provide even an approximate notion of how markets would discriminate among EC borrowers as they progress through stages I, II and III. A more relevant measure of such market discipline might be the cost in terms of real interest rates that markets have exacted from those countries that have sought to pursue hard currency policies. This is generally deemed to have been high.

Finally, market discipline, though it is clearly a crucial factor, is not necessarily the only force motivating responsible fiscal behavior; governments' (and their electorates') own conceptions of the proper role of the state in modern economies and concerns about limiting the share of interest payments in the budget or the level of taxation are also likely to play their part. It is noteworthy, in this connection, that the evidence on the finances of local governments in federated states (Lamfalussy, 1989) does not suggest that these units have been particularly undisciplined. The bulk, albeit not all, of the evidence is rather in the opposite direction. Indeed, juxtaposition of the evidence on the finances of federated states cited in the Delors report with that of the finances and inflation performance of nation-

states presented in International Financial Statistics suggests, if anything, that fiscal prudence is inversely proportional to the authorities' leverage over monetary policy, i.e., their access to the inflation tax.

We are thus rather doubtful about the "lack of discipline" arguments. It remains, however, that a monetary union does raise free-rider issues--the incentive for members to use the system to shift their problems onto other members. It is possible to envisage a scenario whereby one member's fiscal policies became so extreme--possibly in part as a result of a misperception of the true nature of the constraints--as to lead to pressures for a bail-out at the community level which in turn might generate an unwanted degree of monetary expansion and undermine the monetary stability of the system. 1/ This is a possibility. But the solution is clear: monetary arrangements at the Community level that would insulate monetary policy from such developments. This could be achieved in a variety of ways, e.g., through restrictions on the Central Bank's holdings of government paper and/or adoption of a binding monetary rule, e.g., regarding monetary growth or inflation. Given such arrangements, it should not even be necessary to impose a no-bail-out restriction since bail-outs (such as, for instance, that of the S&Ls in the United States) do not, in and of themselves, generate monetary accommodation. Only if the complete independence of the Central Bank could not be guaranteed, allowing the possibility that the pressures (e.g., on interest rates) generated by a bail-out could lead to monetary accommodation, would a no-bail-out restriction also be required. In either case, of course, bail-outs are a fiscal threat to members of a monetary union, just as they are to a country's tax payers when a government bails out a corporation, for instance. It is therefore quite appropriate for participating countries to guard against such threats by explicitly prohibiting cross-guarantees regarding the public debt of member countries--an arrangement that would provide the basis for a standard "stabilization program" arrangement if a member should run into difficulties. Be this as it may, the basic point is that free-rider threats to the financial stability of a monetary union are best taken care of by clear monetary "rules of the game," of the sort mentioned, than by additional restrictions on fiscal policy.

2. Fiscal coordination and the efficiency of policymaking

The second main strand in the argument for increased centralization of fiscal policies within a hard currency area can be viewed as an extension of the general case for policy coordination. This derives from the existence of significant spillover effects on the economy of one country resulting from policies pursued in another (see, for example, Corden (1986)). Where all countries are "small", in the sense that no individual government can influence world relative prices

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1/ Casella and Feinstein (1989) formalize some bail-out scenarios (of a kind).

through its policy actions, there is no need for coordination: by analogy with the perfect competition model and standard welfare theory, it can be deduced that decentralized and uncoordinated policymaking is efficient when governments are atomistic. This has been proved formally by Backus et al. (1988). But in the more pertinent case where countries are large enough to have perceptible effects on one another, there is a problem of externalities: a government may fail to give adequate (if any) weight in its policymaking to potential effects on partner countries. These externalities generate inefficiency--excessive or insufficient policy action relative to some optimum--which coordination is supposed to cure. It is this notion which underlies much of the case for fiscal coordination in Lamfalussy's (1989) contribution to the Delors report.

A point which is sometimes overlooked in the debate on this subject is that it is not sufficient to demonstrate the existence of externalities from uncoordinated fiscal policies in order to make central coordination a necessary ingredient of a fixed exchange rate regime or monetary union. If the externalities would have existed in any case (i.e., with flexible or managed floating exchange rate regimes), and if they were not aggravated by the imposition of fixed exchange rates, then they would have no bearing on the present debate. In these circumstances, the merits and demerits of policy coordination and the prerequisites for an effective hard currency regime should properly be treated as separate issues. If, on the other hand, the move to fixed exchange rates could be shown to generate new or more significant spillovers between participating countries, then there would be grounds for requiring enhanced policy coordination as part of the new regime. Bearing this in mind, we consider two of the main potential sources of inefficiency which have been ascribed to uncoordinated fiscal policy: disturbances to saving, investment and real interest rates in partner countries; and incentives for beggar-thy-neighbor strategies in response to exogenous shocks.

On the first of these, the argument runs roughly as follows. With integrated capital markets and no exchange controls, fiscal expansion in country X will: (a) draw partly on the savings of country Y; (b) almost certainly reduce the two countries' combined saving rate (though the level overseas may rise); and (c) tend to push up real interest rates in both countries, crowding out private sector investment. 1/ This sequence of effects does not, in itself, imply any inefficiency in policy. Residents of country Y would only reduce domestic investment or raise saving (if at all) to the extent that they are compensated for doing so by higher interest rates. However, the policy of country X may generate costs for Y which are not internalized (Corden, 1986). First, there are likely to be adjustment costs imposed on Y, for example in labor markets, where it would be necessary to reduce the average

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1/ We assume that public sector debt is not "neutral," in this sense (see Nicoletti (1988)).

capital-labor ratio in order to avoid increasing unemployment. The less flexible are relative factor prices in Y, the more difficult this adjustment will be. If X's fiscal expansion were subsequently and unexpectedly reversed, the adjustment costs could be even higher, even though saving, investment, and real interest rates may return to previous levels. Secondly, over a longer horizon, higher real interest rates may adversely affect the collective potential growth rate, with implications for intertemporal or intergenerational welfare. Only if X's government happened to be acting "as if" it were a competitive private entity--using the proceeds of its extra borrowing for productive capital investment at market-determined interest rates--would this problem not arise. 1/

Clearly, these sorts of externalities could occur whatever exchange rate regime was in place. As regards a hard currency regime (and particularly a monetary union) one could follow Lamfalussy (1989) and others in suggesting that governments might be encouraged to be less careful about using borrowed funds efficiently and productively, on the assumption that other countries would be more likely to share the burden of any future financing difficulties. This was discussed in the previous section, and the same counterarguments used there can be applied. Alternatively, it is possible to argue that the (alleged) increase in the international substitutability of assets associated with a fixed exchange rate regime could raise the degree to which a given amount of government borrowing in one country diverts saving from other partner countries. Any externalities involved would therefore be exacerbated. This is a valid concern, but one which should not be overstated: increasing integration of European (and world) capital markets has been a prominent feature of the 1970s and 1980s, and the "hardening" of exchange rates could be seen as a continuation of that process rather than a sea-change. On this view, the implications for European fiscal policy--though pointing in the direction of more coordination--would be less radical than some have suggested.

A second source of externalities in policymaking, and one which has received more attention in the literature (Sachs (1983), McKibbin and Sachs (1988), Canzoneri and Henderson (1989)), is the existence of incentives for strategic beggar-thy-neighbor policies in response to exogenous shocks. Consider the case of two identical countries, with objectives for price and output stability, subject to a simultaneous and

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1/ Unfortunately, it is not possible to argue that this pseudo-competitive behavior would be assured simply by financial markets' attaching realistic risk premia to government debt. Markets are concerned only with the expected return on their assets, and for governments, unlike private corporations, this return is a function not only of the viability of the project being financed but also of the government's ability to raise taxes. The existence of efficient financial markets is not, therefore, sufficient to eliminate the spillovers described above.

symmetric adverse supply shock (a rise in energy prices, for example). If each takes the setting of the other's policy instruments as given, and the exchange rate between them is fully flexible, it is straightforward to show that both countries have an incentive to pursue a combination of relatively expansionary fiscal policy and tight control of monetary growth: in so doing, each will hope to force up its exchange rate relative to the other, thereby dampening the effect of the supply shock on domestic prices by "exporting inflation." 1/2/ Of course, with both countries acting in the same way, the pressures on the exchange rate will cancel out and the only result will be an inefficient distortion to the collective fiscal-monetary mix. Coordination of policy, aimed at maximizing a joint objective function, would eliminate this inefficiency, since movements in the exchange rate would be seen to have only redistributive effects. The benefits from such coordination would be stronger the more prevalent are symmetric rather than asymmetric shocks, since it is clear that the conflicts over the exchange rate will be much reduced (or possibly, in the simplest models, eliminated) if disturbances in the two countries tend more often to be in opposite directions. 3/

In the simple two-country world described here, a shift from floating rates to a fixed exchange rate regime is sufficient to eliminate the negative externalities deriving from unilateral changes in a country's fiscal-monetary mix (see McKibbin and Sachs (1988) for formal proof). It would be tempting to infer from this that fiscal coordination becomes less, not more, necessary as the flexibility of exchange rates is reduced. However, more recent studies (Cohen and Wyplosz (1989); Canzoneri and Henderson (1989)) have shown the importance of taking into account interactions with third countries, or groups of countries.

For ease of exposition, suppose that Europe consists of France and Germany, and that the U.S. comprises the rest of the world. If France and Germany agree to fix the franc-deutsche mark exchange rate (floating jointly vis-à-vis the U.S. dollar), they eliminate the intra-European externality, as we have said, but create a new one: a fiscal expansion in, say, France (for given monetary growth) will now tend to push up the joint exchange rate against the dollar, generating spillover effects on Germany. Cohen and Wyplosz show that, here, the resulting inefficiency will--in contrast to the case of flexible exchange rates--be most severe when shocks affecting the European partners are asymmetric. In order to

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1/ See Roubini (1989) for some model simulations demonstrating this phenomenon in the United States-European context.

2/ In most models the gains from this strategy would only be temporary. Nevertheless, as Sachs (1983) argues, it would still be worthwhile for a government interested in smoothing the adverse effects of an inflationary shock.

3/ See Amalric and Sterdyniak (1989) for a demonstration of the different effects of symmetric and asymmetric shocks.

dampen the impact on its domestic inflation rate of an adverse supply shock, France might wish to see an appreciation of the European currency vis-à-vis the U.S. dollar and would tend to loosen fiscal policy to bring this about. If, at the same time, Germany was subject to a beneficial supply shock, the French action would aggravate the disturbance to the German economy (push inflation down further); countervailing fiscal measures by the Germany authorities would then set in train an inefficient and fruitless conflict over the joint exchange rate. 1/ In the case of a symmetric shock, conflict would be much reduced--since both countries would want the exchange rate to move in the same direction--and would derive solely from the incentive to "free ride" (each wanting the other to make the necessary policy adjustment, resulting in insufficient adjustment overall, relative to the optimum).

Consideration of these stylized scenarios is therefore, a priori, inconclusive on the question of whether fiscal coordination is more or less necessary under fixed than under floating exchange rates. Incentives for inefficient strategic policy conflicts exist under both regimes, only in rather different forms. However, there are two reasons for believing that the potential problems might actually be less severe in a hard currency regime or monetary union than under present arrangements. First, it is widely held that the European economies are more closely integrated with each other than they are with the rest of the world. Since the spillovers from policy are directly related to the degree of integration between economies, this would imply that the externality being eliminated (the intra-European externality) might be more significant in practice than that being created (conflict over the common exchange rate vis-à-vis the rest of the world). Secondly, some empirical work in Cohen and Wyplosz (1989) 2/ conforms with intuition in finding that disturbances to the French and German economies from the mid-1960s to the mid-1980s have been more strongly symmetric (and sustained) than asymmetric. 3/ As we have seen, this would also tend to

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1/ The simulations reported in Roubini (1989) imply that this problem would also exist in a hegemonic, deutsche mark-led hard currency regime. However, in this case, the externalities from German fiscal expansion would be greater than from a similar policy shift in France. Assuming that Germany follows a fixed money supply rule and that France adjusts its monetary policy in order to maintain the franc-deutsche mark parity, a German fiscal expansion forces a monetary tightening in France. A French fiscal expansion, on the other hand, must be accommodated by faster monetary growth in France. Hence, the European currency appreciates more vis-à-vis the U.S. dollar in the former case than in the latter, and the resulting externalities are correspondingly affected.

2/ Albeit called into question, on technical grounds, by Giovannini (1989).

3/ Cohen and Wyplosz point out that it is primarily temporary rather than permanent shocks which cause these problems, since the motivation for "smoothing" is stronger when shocks are temporary.

favor fixed over adjustable exchange rates in Europe, in terms of minimizing the costs of inefficient policy conflicts. While there is a clear need for more research in this area--both theoretical (looking at a wider range of shocks and more sophisticated models) and empirical--it appears that, at present, the case for enhanced coordination of fiscal policies as a necessary adjunct to monetary union is unproven.

IV. Conclusions

Given the variety of approaches that one can take toward the issue of fiscal discipline in a fixed exchange rate regime, it is perhaps not surprising that a meeting of minds among the European partners on this subject has yet to materialize. A consensus, in one direction or another, seems more likely if the various themes in the debate can be separated and each discussed on its own merits.

In this paper, we distinguish between fiscal constraints that might face individual countries pursuing a hard currency policy, on the one hand, and those that the designers and managers of a fixed exchange rate system might need to impose on member governments, on the other. From an individual country's point of view, our conclusions are:

-- first, that a wide range of deficit and debt ratios can be, and indeed has been, consistent with stable exchange rates (compare the Netherlands and Germany over the past six years). The key is that higher deficits must not be associated with more monetary financing. It is shown that even a country such as Belgium, with deficits of over 7 percent of GDP, is more or less able to stabilize its current debt-GDP ratio with no monetary financing whatsoever;

-- second, that external balance considerations, per se, should also have little bearing on the setting of fiscal policy once the hard currency regime is established. This is mainly because of the inadequacies of the current account as an objective for policy in general--particularly in a regime with a nominal anchor for inflation. It is recognized that, in the transition to irrevocably fixed exchange rates, governments may feel obliged to counteract any deterioration in their current account positions--and perhaps also to reduce their domestic debt-GDP ratios--by tightening fiscal policy, thereby reducing the interest rate cost of establishing credibility. Against this, it is possible to argue that credibility in the exchange rate objective might actually take longer to establish if conflicts with currency speculators are deliberately avoided in this way.

All in all, we do not see a strong case for arguing that countries that have managed to bring their inflation performance into line with that of the anchor must tighten fiscal policy if they are to be able to participate in a hard currency regime or monetary union. This is certainly not to say, however, that countries with high deficit or debt ratios can be complacent about continuing adjustment, since there are good reasons for believing that their debt burdens are likely to impede their long run economic performance. Nor can it be denied that countries with above-average inflation rates might have to tighten fiscal policy as part of the stabilization process. But none of this provides justification for a system of centralized "binding rules" on national fiscal policies--particularly when the proponents of such a system see it not just as a transitional device but as an integral part of eventual monetary union.

From the perspective of preserving the monetary stability of a fixed exchange rate system, we find that the shift to such a system does result in an easing of some of the traditional constraints on fiscal policy. However, we argue that this easing is essentially offset by the emergence of new constraints--constraints innate to a hard rather than a flexible exchange rate regime. We therefore see little reason to think that the monetary stability of a fixed exchange rate system requires any restrictions other than the generally accepted one of insuring the independence of monetary policy from the fiscal policies of member countries.

Finally, there is the argument that a move to permanently fixed exchange rates within Europe should be associated with increased fiscal coordination among member countries in order to ensure an "appropriate" fiscal-monetary mix for the membership as a whole. The paper acknowledges that there is a role for coordination to limit the impact of one country's fiscal behavior on the community-wide level of real interest rates and investment. However, this role exists with or without fixed exchange rates or monetary union. There is an important distinction between arguing that more coordination might be desirable for its own sake and claiming that it is a sine qua non for monetary union. While it is true that the elimination of adjustable exchange rates may push forward the process of increasing economic integration in Europe--thereby accentuating any spillover effects between economies--it is not clear that this would warrant the radical change in the mechanisms for coordination ("binding rules") implied by the Delors Report. Our skepticism on this issue is reinforced by a consideration of what effect fixed exchange rates might have on the incentives for beggar-thy-neighbor fiscal policies. Such incentives exist under both fixed and flexible exchange rate regimes, in different forms, and under certain (we think, plausible) assumptions, the problems resulting from noncooperative fiscal policy would appear to be weaker rather than stronger when exchange rates are irrevocably fixed.

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