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**Fiscal Policy Management in an Open Capital Regime**

Prepared by Peter S. Heller<sup>1</sup>

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**Abstract**

This paper argues that as countries open their capital regimes, the appropriate fiscal stance should become more conservative than when capital is immobile. Further fiscal adjustment may be necessary in the face of large and volatile capital flows. However, the required changes would be smaller. If a fiscal response is unavoidable, some elements of fiscal policy are easier to manipulate and less distortive than others. Determining the actual stance of fiscal policy is more difficult in an open capital regime, underscoring the need for transparency about fiscal rules. A more open capital environment also constrains the sustainable fiscal structure.

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Author's E-Mail Address: pheller@imf.org

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### Summary

This paper discusses how countries should manage fiscal policy as they move to the uncertain world of more open capital regimes. The possibility of both significant inflows and outflows may lead to calls for additional fiscal adjustment, compared with what was considered appropriate for a closed capital regime, particularly when the exchange rate adjustment is constrained. The appropriate fiscal stance in an open capital regime should thus be more conservative than when capital is immobile. Preemptive tightening is required when the capital regime is opened.

This would not preclude the need for further fiscal adjustment in the face of large and volatile capital flows. However, the required changes would be smaller. Reducing the size of the needed fiscal response has important virtues, since fiscal policy is poorly adapted as a useful instrument of short-run macroeconomic adjustment. Many fiscal variables are difficult to manipulate flexibly in the short-run, such that fiscal interventions can involve high transaction costs and create distortions in resource allocation.

If a fiscal response is unavoidable, some components of fiscal policy are easier to manipulate, more effective, and less distortive than others. Also, shifts to an open capital regime make it difficult to determine the actual stance of fiscal policy, underscoring the need for transparency about the "fiscal rules" governing the fiscal stance, the fiscal policy response to capital flows, and the actual fiscal position. A more open capital environment also constrains the sustainable fiscal structure, forcing a reevaluation of government expenditure and revenue policies.

## I. INTRODUCTION

Much has been written since the Mexican crisis of late 1994 caused policy makers to reexamine their approach to conducting macroeconomic policy in an increasingly globalized world. The potential swiftness of capital flow movements, their heightened sensitivity to changed expectations, and the relative transactional ease with which movements can occur suggest the growing complexity of the institutional environment facing policy makers. In times of crisis, monetary policy measures normally represent the first line of defense in responding to a significant change in capital flows. However, authorities are often unwilling to allow significant exchange rate adjustments. Hence, there are obvious limits to the role that monetary policy can play beyond the short term. Even where a country's fiscal policy is not an obvious factor causing a shift in capital flows, it may be asked to play an important part in the overall macroeconomic policy response, despite the unavoidable delays inherent in adopting and implementing fiscal measures.

Particularly interesting is the seeming *asymmetry* in the perception of the appropriate role of fiscal policy under capital mobility. Specifically, fiscal tightening is usually seen as a necessary policy response to a *capital outflow*, reflecting the need to reduce absorption in the context of an unfinanceable current account balance, while limiting the adverse effects of a squeeze in credit on private sector investment. If associated with monetary tightening, and assuming that expectations are otherwise unaffected, it should have the effect of raising interest rates (increasing the attractiveness of the local currency). Further, such fiscal tightening may also be seen as necessary to strengthen the market assessment of the medium-term viability of a country's fiscal stance. Yet, in the context of significant *capital inflows* and in a world where capital flows are highly elastic, a tightened fiscal policy stance is also often advocated, given the ineffectiveness of monetary policy to sterilize inflows, absent a significant exchange rate appreciation.

Here it should be observed that the macroeconomic policy context and the problems created by inflows are typically seen as different from those associated with outflows. In the former, the authorities are often primarily concerned with preventing an exchange rate appreciation and limiting overheating. In this context, it tends to be taken for granted that capital mobility is high. There are few capital restrictions and usually direct investment inflows are heavily sought. In contrast, when there are capital outflows, the concern is usually to pre-empt or limit a balance-of-payments crisis; often the flows occur despite the presence of formal capital account restrictions. Also, more often than not, an unbalanced fiscal sector is perceived as a key factor underlying the capital flight.

Moreover, whereas much has been written on the specifics of the fiscal strategy needed to offset an adverse turn in the balance of payments,<sup>2</sup> the nature of the fiscal adjustment appropriate for responding to sudden or large capital inflows (and to the capital

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<sup>2</sup>See Nashashibi et. al. (1992); Fiscal Affairs Department (1995); and Schadler et. al. (1995).

outflows that reverse such inflows) has received significantly less attention (perhaps because it is assumed to be analogous). And, for both inflows and outflows, but particularly as regards volatile capital inflows, there has been limited consideration of the opportunity cost of changing the components and structure of revenue and expenditure when fiscal instruments are used to re-equilibrate demands for domestic and foreign assets.<sup>3</sup>

This paper explores the issue of whether there should be a change in the stance of fiscal policy and in the underlying structure of revenues and expenditure when the capital account becomes open and there is a prospect of increased capital volatility. A number of specific questions are raised. First, what is the appropriate underlying fiscal stance in a new, more open, capital regime--compared with the stance in the previous regime? Second, having adopted an appropriate stance, how should fiscal policy makers further respond to significant shifts in capital flows, inward or outward? Is the "asymmetrical" response discussed above always warranted? Third, should the nature of the fiscal response differ depending on the source of the capital flow problem--whether it is exogenous or caused by factors in the domestic policy environment?

Fourth, if the fiscal position is itself significantly affected by capital flows, how does this affect an analytical assessment of the appropriateness of the fiscal policy stance? Fifth, looking beyond the macro stance, should the underlying composition of fiscal policies (viz., the constituent tax and expenditure policies) be modified in a more open capital environment, in order to reflect in part the constraints such an environment would impose on such policies? Finally, which fiscal instruments are best adapted for responding to significant capital flow movements, and is there a core of fiscal policies that are less suited--and therefore should not be adjusted--for such purposes?

There are no easy answers to these questions. The analysis in this paper reflects a review of the literature of the last 18 months and an attempt to synthesize the implications for fiscal policy at a broad brush level. Most important, it seeks to provoke further discussion and analysis. In what follows, Section II briefly surveys the types of macroeconomic challenges posed by an open capital environment; it also raises the issue of whether certain elements of the fiscal structure should be excluded for the purpose of macro policy adjustments. Section III discusses the issues that arise in determining the appropriate fiscal stance and response as one moves to a more open capital account environment. Section IV examines how the structure or composition of fiscal policies may need to be adapted to operate in a more open capital environment. Finally, Section V provides some concluding remarks.

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<sup>3</sup>For a recent discussion on some of these issues, see T. Ter-Minassian (1996).

## II. THE POLICY CONTEXT

### A. Factors Influencing Shifts in Capital Flows

A more open capital environment is particularly complex for policy makers because of the inherent uncertainty about the likely magnitude, speed, and possibly even direction of capital flows during any period. Such flows may occur "smoothly"--within a relatively limited band of uncertainty about the factors that may affect such flows in the near term--or may be subject to occasional bouts of "disorderly" movements, with unexpected shocks forcing an emergency policy response. The size of the flows may also be large, particularly relative to the size of the domestic economy. The existence of greater uncertainty implies that fiscal policies need to be formulated bearing in mind that one could observe *significant* inflows or outflows at any point in time. Under such circumstances, three questions can be raised: whether fiscal policy is an efficient and sufficiently flexible instrument for a macroeconomic policy response to such shocks in the capital account? Second, if it is to be used, what are the implications for the underlying composition of expenditure and revenues? And, third, what are the most appropriate fiscal instruments for such a response?

#### Exogenous Factors

To some extent, the uncertainties facing policy makers may reflect exogenous factors over which most countries have little control. Shifts in the economic environment of the industrial economies (e.g., interest rates, real growth) are obviously important to smaller countries because they affect industrial country interest rates--and thus the differential between the rates available in a given country and that of plausible alternative investment opportunities elsewhere.

More generally, shifts in the economic environment of other emerging market or industrial economies may arise from a contagion effect caused by adverse developments in another country, or from the perception of stronger, more positive investment options in other countries. By its underlying macroeconomic policy stance, a country may seek to reduce the degree to which it is vulnerable to such exogenous factors, or at least those factors giving rise to large and disorderly capital flows. Adding to the uncertainty, of course, is the difficulty of fully gauging the reaction functions of different market players to exogenous developments, i.e., of local investors and more importantly, key international institutional investors; this further complicates the task of policy makers in emerging markets in predicting changes in the domestic demand for money.<sup>4</sup>

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<sup>4</sup>For a discussion on factors influencing capital inflows and measures of volatility, see Claessens et. al. (1995) and Calvo et. al. (1993).

## Endogenous Factors

Some of the factors potentially affecting capital movements must be considered as relatively endogenous, viz., affected by a country's own policies. Most obviously, an excessively expansionary fiscal policy may itself be the source of the capital flow problem. Coupled with a tight monetary policy, this could lead to high real interest rates that initially provide an environment that attracts (or indeed encourages) capital inflows, but which is susceptible to rapid reversals. Similarly, countries that have accumulated a large public debt burden may be subject to significant interest rate premia, thus increasing their vulnerability to a turn in investor sentiment. In such cases, fiscal policy would need to play a role in responding to capital flows, less because it is an effective policy instrument, and more because it is the principal source of the problem. But even in the absence of obvious fiscal imbalances, market perceptions about the firmness of fiscal discipline are an important factor influencing investor expectations and a source of potential instability in capital flows.

Capital flows (both portfolio adjustments and direct foreign investment) may also be influenced by the domestic institutional environment, particularly the extent to which it supports productive and profitable investments. The range of fiscal policies which may be considered supportive is wide, from the provision of a disciplined fiscal regime with relatively low and stable tax rates to more debatable approaches, such as the provision of corporate tax incentives for foreign investments or the establishment of free-trade zones.

Another aspect of endogeneity relates to the extent to which the fiscal position is itself affected by capital flow movements or by the general macro policy stance adopted in the context of an open capital regime. For example, Hausmann et al (1996) have noted that in Latin America, capital flows tend to be highly correlated with cyclical movements in the economy (viz., inflows associated with strong economic performance, and the converse for outflows). Moreover, such flows may also have an independent influence which exacerbates a fiscal imbalance (with capital inflows associated with booming imports and high customs duty receipts, and outflows associated with a corresponding weakening in the fiscal accounts).<sup>5</sup> The weak fiscal position that has arisen in periods of capital outflows and recession have made it difficult for policy makers to tighten fiscal policies in response to the adverse turn in the balance of payments. The existence of such endogenous relationships must be taken into account in assessing and formulating the appropriate macroeconomic policy stance in relation to capital flows (see Section III.B).<sup>6</sup>

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<sup>5</sup>Hausmann et. al. (1996).

<sup>6</sup>For example, such endogeneity might be perceived as desirable, allowing fiscal policy to exert a strong automatic stabilizer in response to significant shifts in capital flows. The issue then would be what preconditions would make it useful for the fiscal stance to be so responsive.

## B. Underlying Structure of Fiscal Policies

To summarize the discussion so far, as the capital environment becomes more open, there may be additional pressures for fiscal adjustment. A central issue for this paper is the extent to which fiscal policy should play such a role and if so, whether this can occur without adversely affecting the other redistributive and allocative roles that governments should play in society. Specifically, the paper argues that, in identifying possible macroeconomic policy responses, and in understanding their limits, one must examine whether certain elements of the fiscal structure should be relatively insulated from adjustment. It also raises the subsidiary question of whether the fact of a country operating in a more open capital environment should itself motivate a change in the composition of the fiscal structure.

*The possible need to insulate fiscal functions may be explained by the concept of the basic or "core" allocational and distributional roles of a government. Economic theory suggests a justification for government roles that are of a public good nature, or for which there may be significant externalities. Other core roles may derive from the constellation of political forces and the social values in a society: redistributive outlays and fiscal federal transfers may be important reflections of the social conscience and the balance of political power. The need for protecting certain activities might also arise from the high opportunity cost of changing some policies, the large efficiency costs of allowing for variability, or high contractual costs of delaying or curtailing certain programs.*

Recognizing the blurriness of the borders which delimit the fundamentally necessary roles government must play, one can nevertheless assert a general principle. There is a core set of expenditures associated with such roles and functions which need to remain *outside* (or nearly outside) the realm of frequent adjustments in pursuit of macroeconomic policy objectives if a government is to retain its legitimacy and maintain minimal efficiency. Section IV expands further on the issues involved in clarifying what such core expenditures might be and the issues involved in determining what scope there would be for expenditures to be adjusted.

Similar considerations would suggest that there are limits on the extent to which the revenue structure should be changed for macroeconomic purposes. Certain tax regimes play well-recognized roles in influencing rates of investment and savings, production and pricing decisions, and the supply of labor. The effective rates of the income tax are particularly relevant in this regard, but tariff adjustments also have important effects. Frequent changes in the tax and tariff policy environment within which economic agents make resource allocations would be disruptive and thus undesirable. This would argue that tax rate or base adjustments on macroeconomic grounds should be associated with those elements of the revenue structure which would have the least distortionary impact on allocative decisions. Unsurprisingly, this would suggest a focus on such tax bases as the general sales tax or excise taxes on goods subject to relatively inelastic demand.



As will be elaborated further in Section IV, a more open capital environment may also impose constraints on a government's ability to use revenue measures for fiscal adjustment. Competitive pressures may limit the effective tax rates that can be imposed on mobile factors of production--most obviously, on capital incomes. Even those taxes that are less directly targeted at mobile factors, such as a general sales tax, may nevertheless be constrained by the need to avoid a comparatively high tax environment.

Even if one could agree on a normatively desirable expenditure or revenue structure, the actual fiscal structure is likely to depart from it. Fiscal structures are the product of the institutional inertia of past policies and may offer considerable scope for rationalization in the composition of both revenues and expenditures. Similarly, there is also always room for a rethinking of the definition of "core," in terms of the nature of a government's expenditure policies, the way in which they are produced, or the distribution of the burden in their financing. Also, if the level of outstanding public debt is high (relative to GDP), there is the possibility of a virtuous circle as fiscal deficit reduction strengthens market perceptions, reduces interest rate premia and, given a lower deficit, facilitates lower interest rates and thus further allows for cuts in the burden on the budget of debt service.<sup>7</sup> Thus, our argument does not imply that fiscal structures should not be adjusted over time, but rather that the scope for fiscal policy as a macroeconomic policy variable, given debt service or personnel or contractual commitments should, over time, become fairly, limited

### III. THE RESPONSE OF FISCAL POLICY TO A MORE OPEN CAPITAL ENVIRONMENT

#### A. The Appropriate Underlying Fiscal Stance

##### In a Closed Capital Regime

The starting point for an exploration of the impact of a shift to a more open capital environment on fiscal policy is the appropriate underlying fiscal stance in a relatively more closed capital regime. If the structural fiscal balance,  $S$ , is defined as the fiscal balance<sup>8</sup> that would, for a given constellation of revenue and expenditure policies prevail at the economy's potential output (or NAIRU) level (hereafter,  $Q_p$ ), the *appropriate* structural fiscal balance,

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<sup>7</sup>As with the case of Denmark and Ireland in the 1980's, an appreciation of the real exchange rate may reduce external debt service costs significantly.

<sup>8</sup>In what follows, the fiscal balance is defined as equaling revenue minus expenditure and is stated as a share of GDP.

$S^*$ , is defined to be that  $S$  which is financially sustainable over the longer term, given the context of a relatively closed capital regime.<sup>9</sup>

Fiscal sustainability must take into account the size of the outstanding explicit public debt, the expected long-term growth, the implicit public debt associated with clearly recognized intergenerational trends (e.g., the effects of an aging population on the government's likely long-term fiscal obligations), and any government guarantees or contingent liabilities (e.g., to the banking system, public enterprise sector, etc.). The government's role in promoting infrastructural investment may also be a factor. Where such investments are socially profitable, and where sufficient externalities warrant their being undertaken by the public rather than the private sector, the overall fiscal balance may incorporate such capital outlays, thus yielding a lower value of  $S^*$ .

In Figure 1, the appropriate structural balance,  $S^*$ , is shown as realized at the potential output level,  $Q_p$  (note: this  $S^*$  could be a surplus or deficit, depending on individual country circumstances);<sup>10</sup> given the tax and expenditure structure, the actual balance will fall below  $S^*$  at output levels below  $Q_p$ , reflecting the lower tax revenues and higher social transfer payments associated with reduced output and employment. The relationship between the actual fiscal balance and output, for any given set of tax and expenditure policies, is shown generally as an  $F(q)$  function. Clearly, the actual fiscal balance may also vary if the tax-expenditure policy mix changes.

### **In an Open Capital Regime**

The conventional fiscal policy response. If a government is pursuing appropriate sustainable policies, as reflected in a structural balance  $S^*$ , should an opening of the capital account lead to a change in these policies and thus in the appropriate structural balance? Obviously, this depends on the roles given to the different macroeconomic policy instruments in response to capital flow movements. For example, if changes in the exchange rate are allowed to bear the brunt of the effect of capital flows, there is obviously less need to adjust fiscal or monetary policies. In contrast, in situations where the authorities are unwilling to allow the exchange rate to adjust, a monetary policy response to inflows will be inherently limited, and fiscal policy may need to bear the brunt of the pressure to adjust demand

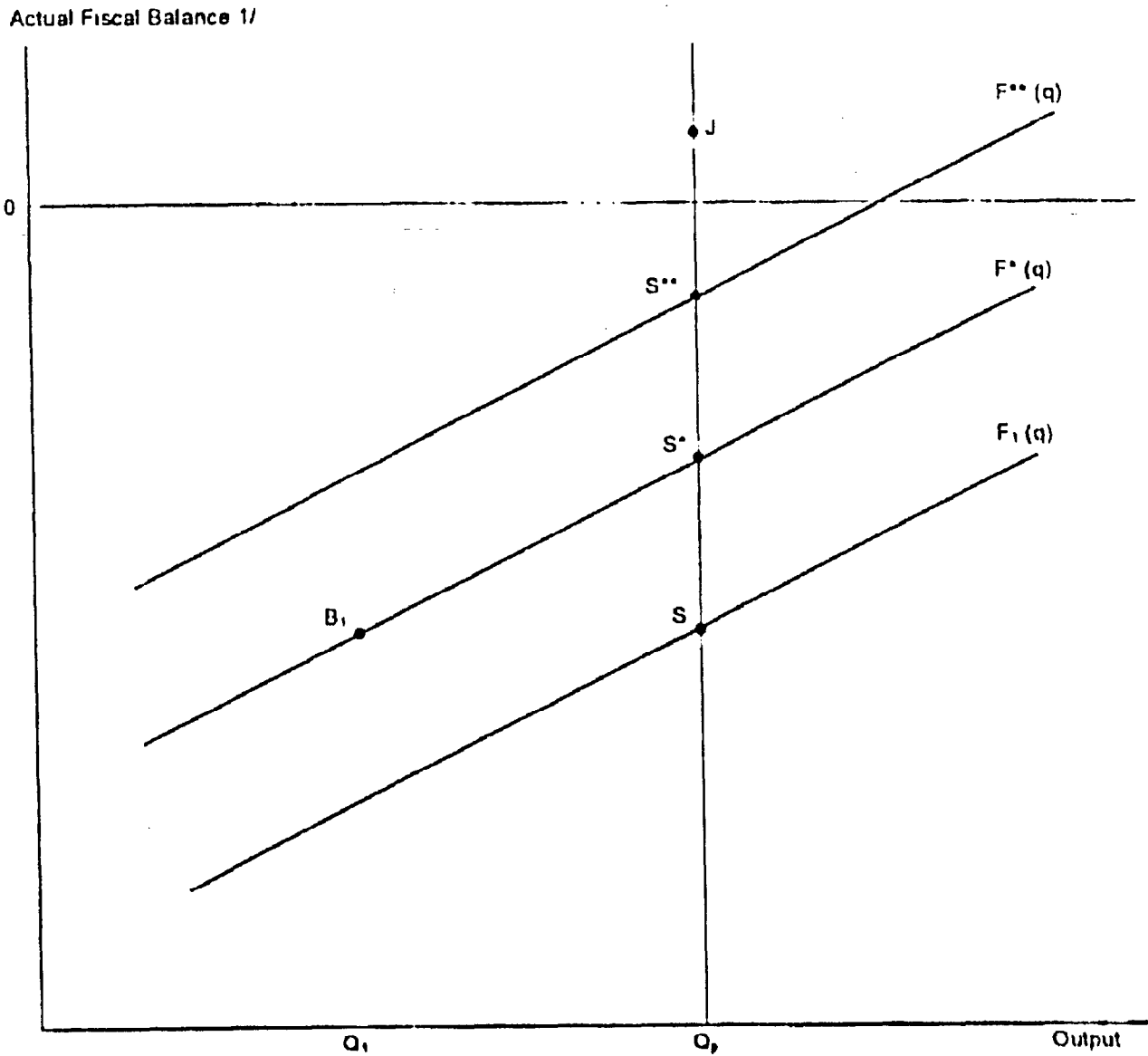
It is also likely to depend on the nature and size of the flow. For capital inflows, particularly where exchange rate stability is sought, some types of flows may facilitate increased productive investment (public and private) and increased imports in the economy

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<sup>9</sup>See Heller et. al (1986); Fiscal Affairs Department (1995), Khan and Reinhart (1995); and Cheasty and Blejer (1993)

<sup>10</sup>The  $F$  functions ignore the fact that changes in the composition of expenditure and revenue may have an impact on  $Q_p$ .

Figure 1



(n.b. Structural balance = actual balance only at  $Q_p$ )

1/ The zero balance line here is purely illustrative. Its actual position would depend on individual country circumstances

Higher externally financed public investments may be reflected in a lower  $S^*$  without excessive strain on the money supply and inflation. However, other inflows or an overall flow which is large in aggregate terms may prove to have more of a monetary effect; efforts to build up a larger stock of international reserves and the associated need for sterilization will ultimately prove costly to the Central Bank, force higher real interest rates (which are in turn likely to provoke further inflows), and, most important, may be difficult to sustain beyond a limited period.<sup>11</sup> Since the interest costs of sterilization are quasi-fiscal (viz., borne by the Central Bank and reflected in the size of its transfers to the government), the choice of a fiscal adjustment-cum-sterilization response over a simple exchange rate adjustment requires that this quasi-fiscal operation be taken account of in determining the size of the fiscal adjustment.

Even recognizing that fiscal policy is a more cumbersome instrument that achieves its effects with greater delay, fiscal consolidation (say a further tightening of the actual fiscal position to  $J$  relative to  $S^*$  in Figure 1) may be required to ease pressure on domestic financial markets, limit crowding out, and reduce expansionary pressures from the capital inflows. Such a tightening may have the initial effect of reducing output below  $Q_p$ , unless offsetting monetary policy measures are taken.

In a situation of capital outflows, when outflows are large enough to put pressure on the external account and reserves, fiscal consolidation is likely to be unavoidable if domestic absorption is to be reduced.<sup>12</sup> Consolidation may also serve to strengthen the confidence of international investors. However, here, fiscal consolidation is likely to be procyclical, aggravating the usual adverse effects on the economy that are associated with capital outflows.

It is clear from the above discussion that the desirable *direction* of the fiscal policy response to a change in capital flows is relatively well-understood. What makes an opening of the capital regime more complicated for fiscal policy managers is that there becomes far less predictability as to the nature of the flows that would need to be responded to. As noted earlier, one may be dealing with flows which are *large* relative to the size of the domestic economy; subject to significant *volatility*, often as a consequence of exogenous factors; and subject to a higher degree of *unpredictability*. Should the possibility of significant

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<sup>11</sup>For example, in the Czech Republic, efforts at sterilization of inflows to tighten liquidity conditions became increasingly more difficult in late 1994, where almost 80 percent of primary securities sold to sterilize external inflows had been acquired by nonresidents and foreign banks' branches. Although most studies suggest that sterilization is a feasible option for central banks to pursue, there is also a recognition that in quasi-fiscal terms, this can become expensive. See Schadler et al. (1993).

<sup>12</sup>As Milesi-Ferreti and Razin (1995) have pointed out, the effectiveness of such policies may be compromised if there is a significant Ricardian offset, as would arise in situations where the burden of public debt is large relative to GDP.

unpredictable volatility in the size and direction of capital flows call for frequent fiscal policy tightening beyond the appropriate underlying fiscal stance of  $S^*$ ?

Certainly, one approach to fiscal policy management would be that the appropriate underlying balance would not need to be changed, but that the particular conjunctural circumstances would nevertheless periodically force fiscal policy to be tightened temporarily beyond  $S^*$ , with the stance returned to  $S^*$  when the capital flow incident had abated. This suggestion reflects the view that the macroeconomic arguments for fiscal tightening pertain, *regardless* of the underlying structural balance target. Thus, there is no reason to change the underlying structural fiscal stance that was appropriate when capital markets were closed, and which had reflected underlying savings-investment balances; all that is required would be a change in the conjunctural fiscal stance as shocks occur.

The argument against this approach is as follows. If the implication of a change to a more open capital environment is that there will be greater unpredictability in terms of the frequency and size of the response that is needed, then it may be very costly and undesirable to have the *content* and *composition* of expenditure and revenue policies subject to such frequent adjustment. If expenditure policies are formulated with consideration of their optimality in terms of allocative and equity criteria, one must seriously doubt the appropriateness of adjusting them in response to conjunctural volatility, particularly given the high political and transaction costs of such changes.

Similarly, if the revenue structure is appropriately balanced in terms of realizing equity objectives and minimizing allocative distortions, one must question whether the fiscal authorities should continue adjusting the level of rates or structure of the different tax bases in response to macroeconomic pressures arising from capital flow movements. In effect, there is a very high opportunity cost associated with changes in the core tax and expenditure structures (and underlying policies) and in the key tax rates in the economy.<sup>13</sup>

Tightening the underlying fiscal stance. An alternative approach would argue for minimizing such opportunity costs by insulating, as much as possible, core revenues and expenditures from the need for frequent macroeconomic policy-induced changes. Yet to achieve such insulation and avoid frequent changes in fiscal variables, the underlying fiscal position would have to be both strong and consistent with the core policies. Such reasoning argues for a *preemptive tightening* in the underlying fiscal position as one moves from a closed to a more open capital environment.<sup>14</sup>

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<sup>13</sup>And this does not even speak to the political economy of reform issues associated with changes in many such core (or noncore) policies.

<sup>14</sup>Governor Frenkel has orally argued this perspective in recent seminars on the macroeconomic impact of capital flows. The point has also been made by Gavin and

Specifically, the fact that the appropriate policy response is qualitatively the same in both cases of inflows and outflows suggests that there is a higher, appropriate structural balance,  $S^{**}$ , and an associated fiscal balance function,  $F^{**}(q)$ , applicable to economies with unrestricted capital movements (see Figure 1).<sup>15</sup> As with  $S^*$ , the new target  $S^{**}$  is set with a view toward medium to longer term sustainability. If fiscal policies are called upon beyond this for further macroeconomic adjustment, the required ad hoc policy measures should then be significantly more limited (see Section III B). Other macroeconomic policy instruments, particularly the exchange rate, would have to carry more of the load. Recourse to further fiscal policy adjustment would require a convincing argument that the social cost of using other macroeconomic policy instruments, including allowing the exchange rate to change, would outweigh the cost of "tampering" with the optimal fiscal structure. More generally, policy makers would have to accept that the quid pro quo for a tighter underlying fiscal balance,  $S^{**}$ , would be a commitment to avoid further ad hoc tinkering whenever possible.

The role of external expectations. So far, the proposal to tighten the fiscal stance as the capital regime is opened has been justified with reference to the "asymmetry" of response recommended to capital inflows and outflows, and the observation that governments in an open capital environment are likely to be called upon to offer such responses relatively often. Another argument for moving to a structural balance  $S^{**} > S^*$  (which may simply imply a lower deficit rather than a larger surplus) is that a tighter underlying structural fiscal position constitutes a statement to domestic and international markets on the soundness of a country's underlying macro economy and on the enhanced capacity of a government to adopt (or accept) an *appropriate* fiscal policy stance in the context of any shock--from capital flows or domestic economic exigencies.

In effect, by starting off with a tighter stance, a government will be in a stronger position to allow countercyclical automatic stabilizers to function, rather than being forced by external considerations to tighten the budget further in a procyclical way that would weaken the domestic economy even more.

In other words, preparedness for openness to capital flows provides an in-built discipline to the conduct of fiscal policies. Fiscal policy can thus play the role of an "anchor," stabilizing market expectations with respect to both the underlying tightness of the fiscal position *and* to the potential swings in a country's fiscal position that are seen as acceptable

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<sup>14</sup>(. . continued)

Leiderman (1995), and Corbo and Hernandez (1994).

<sup>15</sup>Calvo (1995) has argued this in a different way, noting the asymmetry of market perceptions in periods of short run financial turbulence. He argues that fiscal authorities should err on the side of "underestimating the permanence of capital flows" and thus seek "larger than symmetric fiscal surpluses in capital inflow periods" (p. 18).

and consistent with the rules of prudent fiscal policy management.<sup>16</sup> This may also facilitate limiting the sensitivity of the economy to contagion effects.<sup>17</sup> It should be noted however, that the success of such a strategy requires the market to be in a position to understand how the authorities perceive the role of fiscal policy, greater transparency of the actual fiscal position, and adequate clarity as to the rules by which fiscal adjustments will occur in response to capital flows.

Containing interest rate costs. A third argument can be made for a tightened underlying fiscal position. In an open capital market with a relatively fixed exchange rate, interest rates will be more sensitive to international pressures and will be more likely to reflect interest rate premia associated with the perceived risk of an individual country's securities. Since countries running loose fiscal positions are usually seen as higher risks, it can be argued that larger levels of government indebtedness lead to higher interest rate premia in the financial market, and that this relationship is most likely nonlinear (as shown in Figure 2).<sup>18</sup>

While maintaining the closed economy structural balance target of  $S^*$  may be consistent with a long-term sustainable position, it also implies that with any variability in the fiscal deficit, as between A and B, the actual mean interest rate premium that one would be likely to observe would not be  $i_0$  (associated with  $S^*$ ), but rather the average of the interest premia observed, viz.,  $i_1$  (reflecting the average between  $i_0$  and  $i_2$  for deficits A and B, respectively). Tightening the fiscal deficit to a lower position, say A in Figure 2, would allow the average interest rate premium to remain closer to  $i_0$ , even with some variability in the deficit.

This point emphasizes another important factor arguing for a tighter underlying fiscal stance. The interest rate burden of servicing government debt may prove larger in an open capital market. In principle, accessing a wider world capital market may allow a government to tap new sources of funds from a far deeper capital market than is available domestically, thus potentially reducing the average effective cost of borrowing. However, to the extent that a government has, in the past, been able to force the domestic market to accept government debt obligations at a below market interest rate, the opening of the market is likely to limit the availability of such captive sources of financing. In effect, liberalization eliminates the possibility of such quasi-fiscal taxes. In such circumstances, the interest cost of any new debt

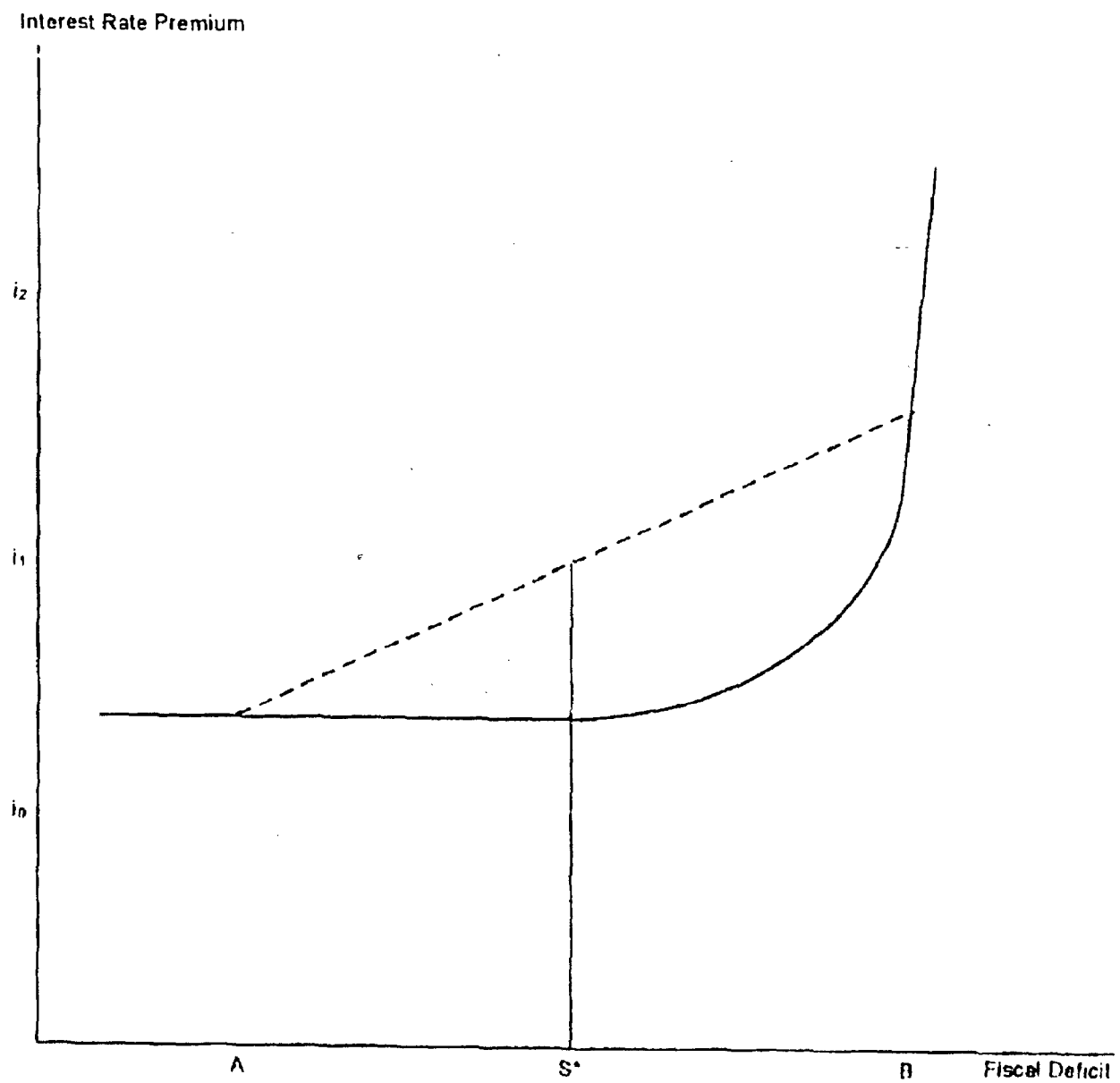
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<sup>16</sup>Calvo (1995) has argued this point in terms of the fiscal position being sufficiently strong such that a government is not perceived as being "forced into medium-run costly fiscal adjustment which [would validate a market perception of a] bad equilibrium." (p. 15)

<sup>17</sup>A virtuous circle may arise from the market's perception of a stronger fiscal stance. By facilitating a fall in interest rate premia, it may reduce debt service costs.

<sup>18</sup>See Tanzi and Fanizza (1996) for empirical evidence on this issue in the G-7 countries. Also, Bayoumi et. al. (1995) and OECD (1995) for empirical evidence of such a relationship in the states of the United States and for the Canadian provinces.

Figure 2





to be issued, either for rescheduling of old debts or for the financing of new deficits, will be more market-related.

Thus, the burden of risk premia becomes far more apparent in an open capital market environment, potentially raising the average effective cost of borrowing and thereby increasing the pressure on a government to take steps to limit the extent of the risk premium. These issues are particularly relevant for governments whose debt to GDP ratios has led to the cost of borrowing to be near the rising portion of the risk premium curve (e.g., point B in Figure 2).

Finally, one obvious exception to the argument for a tightened underlying stance would arise in countries where the authorities want to use the opening of the capital account to increase the rate of capital accumulation in the economy. Although this strategy may be concentrated on attracting direct foreign investment or greater equity financing of domestic enterprises, it could also include tapping foreign capital markets for the government's own investment program. The danger in adopting a more relaxed structural balance (a lower  $S^{**}$ ) is that investor sentiment may prove fickle, leaving a shortfall in financing that must ultimately be met from domestic monetary sources. This would suggest the need either to ensure that augmented public investment budgets are financed from long-term capital flows that are not easily reversed by foreign investors, or that the public projects are sufficiently small or adaptable that they can be put on "hold" if necessary (the latter being the safer option, given the inertia associated with most investment projects).

### **Magnitude of Adjustment**

This paper stops short of discussing the magnitude of tightening needed in moving to a more open capital regime. Obviously, the likely effect of the capital regime opening on the size of capital flows would be important to monitor carefully. As with the proverbial party where many are invited and no one comes, when the opening does not yield significant change in the size of capital flows, one would not need to adjust fiscal policy preemptively beyond  $S^*$ . The problem arises when one begins to observe a significant pickup in flows, greater interest by a broad range of outside investors, and a greater sensitivity by local residents to external interest rate developments. In such circumstances, the argument for preemptive tightening from  $S^*$  to  $S^{**}$  becomes more relevant, and would be motivated primarily by three principal factors: the desire to contain adverse effects due to the possibility of having to adjust the structure of expenditure and revenue in response to unpredictable capital flows; limiting the prospect of being faced with excessive risk premium; and the need to engender greater international confidence in the durability of the fiscal position.

The magnitude of change would thus need to be large enough to be noticeable to external markets and to lead to a significantly lower trajectory in the ratio of public debt to GDP over time. Equally, it would have to be large enough to allow for the possibility of higher deficits in periods when some fiscal expansionary impulse might be needed on various

grounds.<sup>19</sup> Consideration would also need to be given to the short-run macroeconomic impact of such a fiscal consolidation, which could prove contractionary in the absence of crowding-in from the private sector.<sup>20</sup>

### **B. The Role for Fiscal Policy with an Adequately Tightened Underlying Stance**

If the underlying fiscal position has been adequately tightened as capital markets opened, what then would be the role of fiscal instruments in the overall macro policy response if capital flows occurred? To some extent, the appropriate response of fiscal policy would depend on the source of the flows. We have noted that capital flows could arise from exogenous factors (e.g., a change in industrial country real interest rates, a contagion effect, or a change in the relative attractiveness of countries' investment possibilities); or endogenous ones (e.g., a perception that a country is maintaining unbalanced macroeconomic policies, or the "pursuit" of capital inflows for investment purposes); or an interplay of both (e.g., exogenous disturbances leading to capital outflows that weaken the fiscal balance and thereby inspire further speculative attacks).

#### **Exogenous Factors**

The argument for a prior tightening of the underlying fiscal stance is particularly compelling as an *ex ante* response to the problems induced by capital flows caused by exogenous factors; such a tightening may create an "announcement" effect that can reduce the risk of being subject to such exogenous fluctuations. Further *discretionary* fiscal policy may nevertheless be necessary if exogenous shocks occur. Gavin and Leiderman (1995) have noted that if speculative flows are a particularly important problem, then one may need to maintain a stronger reserve objective in order to address the possibility of reverse flows; the prospect then of a more active sterilization policy may then imply the need for an even tighter underlying fiscal position than  $S^{**}$ .

Alternatively, the fiscal position might be moved temporarily from  $S^{**}$  to a temporarily tighter position J (Figure 1). In the latter case, the operative question is how to minimize the opportunity costs of having to make such temporary adjustments to what was a

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<sup>19</sup>It is interesting to note a recent study by McDermott and Waistcoat (1996) which argues that the size of fiscal consolidation is an important factor influencing the success of fiscal consolidation (where success is determined by whether it leads the ratio of public debt to GDI to start to decline and stay on a declining trend). In particular, they note that the "average magnitude of [a] two-year fiscal contraction was 4.0 percent of potential GDP for the successful cases, but only 3.2 percent for unsuccessful cases" (p. 13).

<sup>20</sup>See a recent World Economic Outlook annex on the "Exchange Rate Effects of Fiscal Consolidation," International Monetary Fund (1995).

preferred--and perhaps optimal--fiscal structure. In effect, there should be a very high opportunity cost associated with changes in the core structures (and underlying policies) and in the key tax rates in the economy for which there are important allocative effects. Section IV.C will discuss the components of a preferred approach to further fiscal adjustment in more detail.

A dilemma will arise if the stronger underlying fiscal stance and the improved discipline in macro management itself becomes a factor influencing capital flows. In some countries (notably in Southeast Asia and Eastern Europe), increasing inward flows as countries respond prudently to an inflow "problem" have created pressures for further fiscal consolidation which may exceed that warranted on structural considerations alone. A fiscal strategy which seeks to insulate the core fiscal sector must be clear as to the limits on the pressures that can be accommodated by a purely fiscal response. As previously mentioned, the issue becomes that of the opportunity cost of using fiscal rather than other macro economic instruments.

Beyond a certain point, by not allowing the exchange rate to adjust (particularly in the context of higher productivity growth), too heavy a burden is placed on monetary instruments (with high opportunity cost) to adjust, including the cost of maintaining expensive real interest rate premia. Given the limited time frame over which monetary intervention can be sustained, the burden inevitably is shifted toward the need for fiscal adjustment. Such interest rate premia may also engender excessive fiscal costs, both in immediate debt service but also in terms of the possibility of higher bailout costs in the financial sector if such higher rates weaken the profitability of banks and other financial institutions. For countries concerned with maintaining a relatively stable exchange rate, this may at least imply the setting of a significantly wider band within which the nominal exchange rate can fluctuate.

### **Endogenous Factors**

It was noted above that fiscal policies may be as much the source of the problem as the solution. Clearly, when a country's macroeconomic policies are unbalanced at the outset (e.g., an excessive structural fiscal deficit combined with a very tight monetary policy stance), there is a clear argument for strong fiscal adjustment that moves the fiscal balance to a sustainable long-term position

More interesting is the case where the fiscal balance has been adjusted to  $S^{**}$ , but where the economy and fiscal position are strongly affected by capital flow movements. We have already noted the observation by Hausmann et. al. (1996) that in a number of Latin American economies, capital inflows have a strong positive impact on the domestic economy, with an improvement in the fiscal balance through increased VAT and tariff revenues associated with the higher imports facilitated by capital inflows, and more generally, buoyant income taxes. Similarly, the converse relationship pertains during periods of capital outflows, with a weakening both of the economy and in the fiscal balance.

This correlation is particularly likely where capital flows are associated with direct investment (which would have a direct stimulative effect on employment and output levels), but may also be true for portfolio or short term capital flows. To the extent that capital inflows are correlated positively with a strengthening of the economy, there may also be an inverse relationship with outlays for unemployment insurance. Interest outlays may also be positively correlated with inflows (thus offsetting some of the positive fiscal effects), to the extent that efforts at sterilization lead to higher interest rates and a higher quasi-fiscal deficit

Abstracting from any expenditure responsiveness to the emergence of inflows, this implies that one may, in effect, see a shift in the  $F$  function according to whether capital is flowing in or out. Figure 3 illustrates the sensitivity of the fiscal balance to capital flows. The function  $F^{**}(n)$  illustrates the relationship between the fiscal balance and output in an open capital regime (see Figure 1), during a period with a normal ( $n$ ) level of capital flows. *Ceteris paribus*, a higher level of capital inflows may be associated with a stronger fiscal position, reflecting a higher level of tax and tariff receipts. This suggests that with larger inflows, one would expect an uniform upward shift from  $F^{**}(n)$  to  $F^{**}(i)$  (where  $i$  connotes inflows); conversely, lower fiscal receipts associated with significant capital outflows ( $o$ ) would lead to a shift from  $F^{**}(n)$  to  $F^{**}(o)$ .<sup>21</sup> In other words, the fiscal balance is influenced both by the output level and by the magnitude and direction of capital flows into the economy.

However, one would also expect some degree of covariance between capital flows and output, such that from a fiscal position and output level corresponding to a given normal level of capital flows ( $B_1$  on Figure 3), additional inflows may shift the economy to a higher level of output ( $Q_p$  for illustrative purposes) and the fiscal balance, correspondingly, to the stronger position observed at  $B_2$ ; outflows may correspondingly cause a contraction in the economy to  $Q_1$  and reduce the fiscal balance to the level reflected at  $B_3$ . Such endogenous changes in the fiscal position are analogous to those more conventionally observed in the response of the fiscal balance to cyclical movements in the economy.<sup>22</sup>

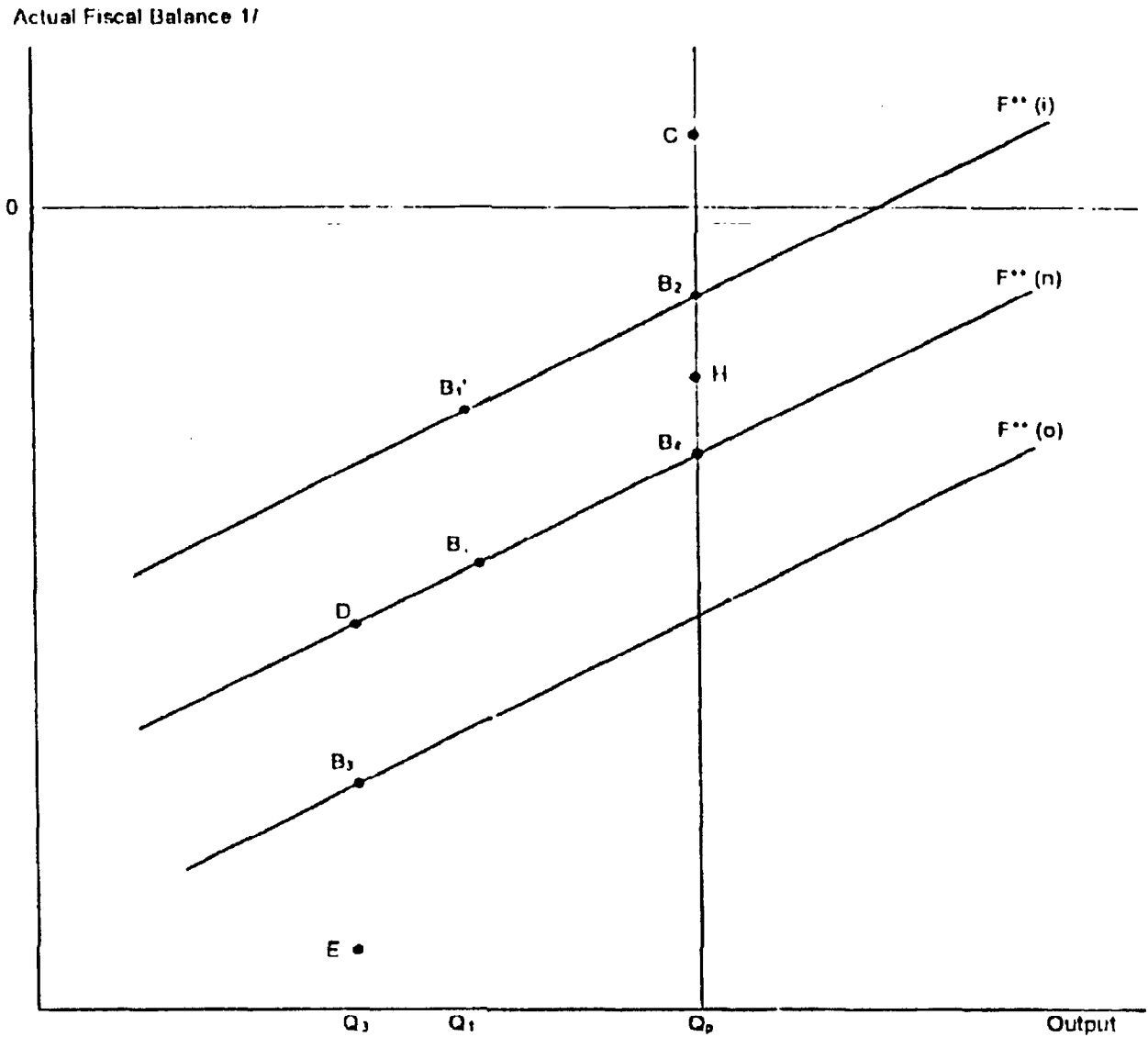
The issue then arises whether the asymmetrical fiscal policy response to such capital flow movements discussed at the beginning of the paper is in fact still desirable, even with a tighter underlying fiscal stance. Specifically, in periods of inflow, should fiscal policy be tightened further, beyond the level observed at  $B_2$  (e.g., at  $C$ ), and in periods of outflow, to a fiscal balance exceeding that observed at  $B_3$  (say at  $D$ )? Note that some shift in the fiscal position would already occur on account of the capital flows; during outflows, as Hausmann

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<sup>21</sup>The nature of the shift in the  $F$  function as capital flows change may be more complex than taking account simply of the relationship of government revenues to capital flows. For example, if monetary sterilization efforts lead to higher interest rates, this may increase overa government debt servicing costs and thus cut into the positive impact of inflows on revenues.

<sup>22</sup>This also implies that the structural balance at  $Q_p$  may vary according to the level of capital flows.

Figure 3



1/ The zero balance line here is purely illustrative. Its actual position would depend on individual country circumstances

i = significant inflows  
 n = normal flows  
 o = significant outflows

et. al have noted, there would be an endogenous weakening in the fiscal stance as one moves from  $B_1$  to  $B_2$ ; with inflows, a further fiscal tightening in the fiscal balance would be observed in the move from  $B_1$  to  $B_2$ .

In the latter case, one might observe that a government chooses to respond to its healthier fiscal position by relaxing expenditure discipline or cutting revenues. In other words, it could choose to maintain the pre-inflow balance observed at  $B_1$ , rather than the stronger possible position seen at  $B_2$ . Indeed, the government might adopt an even weaker fiscal stance as at D, as the availability of inflows could inspire additional external borrowing for public capital projects. The danger of a larger deficit would be the difficulty of reversing the expansionary policies if capital flows dried up--particularly if the increased expenditures were on core outlays (for example, increased entitlements). For prudence, a government should maintain, as a minimum, the endogenous fiscal strengthening implied by the move to  $B_2$ . Besides being in line with the macroeconomic policy stance discussed earlier, it would also provide a cushion against an endogenous weakening of the fiscal stance in subsequent periods of capital outflow. Talvi (1996) notes that such a stance would also allow an improvement in the debt maturity profile during an upswing, and an accumulation of liquid reserves, thereby further strengthening the overall policy response.

In other words, the existence of this type of endogeneity effect does not invalidate the previous policy recommendation about the appropriate reaction to capital inflows, (viz., some observed tightening though the magnitudes involved might be different). An important aspect of fiscal policy analysis in such an environment would be to *recognize* the endogenous impact on the fiscal position of the inflow of capital and the strengthened position of the economy and, in analyzing the macroeconomic situation, to take this into account in assessing the fiscal policy stance (i.e., not accepting a weaker fiscal balance than obtained at  $B_2$ ).

More problematic is the question of whether discretionary fiscal tightening should be called for during capital outflows, despite the already weakened fiscal position and domestic economy. Where existing fiscal policies imply a high deficit (say, at E) and an unsustainable current account balance, a cutback in absorption would be necessary, despite the aggravated effect on the domestic economy. However, if one had started with the tighter, more defensible underlying fiscal stance obtained at  $B_1$ , *it would be desirable to accept the movement from  $B_1$  to  $B_2$* , as allowing fiscal policy to play an appropriately countercyclical role. In other words, the appropriate fiscal response to a weakened economy would involve allowing for a higher, endogenously generated, fiscal deficit. In effect, by starting from a strong fiscal position, it will be possible to accommodate an endogenous deterioration in the fiscal balance with less danger of it being perceived as jeopardizing stabilization. Thus, a government can avoid having to react to external pressures for tax increases or further expenditure cutbacks in order to achieve a tighter fiscal position at a time when the economy is weak.<sup>21</sup>

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<sup>21</sup>In some respects, this mirrors the argument being advocated by many with respect to fiscal  
(continued...)

### C. Problems Posed for Fiscal Analysis

One issue highlighted by the above discussion is the greater difficulty faced by authorities and the market in assessing the actual degree of tightness or looseness entailed by a given fiscal policy position when the capital regime is open. For example, in Figure 3, with significant capital inflows, one might observe an improved fiscal position as one moves from  $B_1$  to H. While this would appear to imply a strengthening of fiscal policy, in fact, it represents a more relaxed fiscal position than is consistent with the structural balance appropriate for this level of inflows and output. Similarly, a deterioration in the fiscal balance associated with a move from  $B_1$  to D as a result of outflows would represent a *tightening* relative to the structural balance consistent with this level of outflow (viz., at  $B_1$ ). Such further tightening would then be inadvisably contractionary.

In other words, the impact of capital movements adds considerable complexity to efforts to get a true reading of the actual stance of fiscal policy at any time. This underscores the need for greater transparency about the "fiscal rules" that govern the fiscal stance, the nature of the fiscal policy response to capital flows, and the actual fiscal position, in order to ensure that the market *correctly* perceives the actual conduct of fiscal policy.<sup>24</sup>

### IV. THE IMPACT OF A MORE OPEN CAPITAL REGIME ON THE FISCAL STRUCTURE

The thrust of the paper so far is that a move to a more open capital environment should prompt the authorities to tighten the underlying fiscal stance. This should significantly reduce the extent to which fiscal policy should then be used to respond to capital flow shocks. However, it should also be clear that the move to a tighter fiscal stance  $S^{**}$  in a more open capital regime does *not* rule out the use of some fiscal instruments in responding to capital flows. Nor does it imply that fiscal restructuring, particularly with respect to revenues, may not be needed. Neither does it imply that there may not be a change in the actual fiscal position as capital flows occur--indeed, this is likely. Rather, what should be clearer is the explicit tradeoff that would be required between policy changes for macroeconomic objectives relative to the opportunity cost of changes in the fiscal structure.

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<sup>23</sup>(...continued)

policy rules in a post-Maastricht world, where by a norm fiscal deficit of no more than 1 percent is seen as desirable (viz., the so-called Stability Pact that has been agreed by candidates for membership in the European Monetary Union). This would then allow, in a period of recession, that automatic stabilizers play a role (and which could then imply a higher fiscal deficit, but still less than 3 percent of GDP, during such weaker periods).

<sup>24</sup>This point has also been noted by Talvi (1996).

The force of this argument is particularly strong if there is a perception, at the time of capital account liberalization, that the composition and level of government expenditures is reasonably optimal and close to the "core" necessary outlays, and that the structure of the revenue system (including tax rates and base) is appropriate. However, as noted earlier, it is more than likely that, when consideration is being given to an opening of the capital account, the fiscal structure is not optimal. On the one hand, this may delay the opening of the capital regime. However, from another angle, the necessity to tighten the fiscal stance with an opening of the capital account provides an opportunity, over time, to achieve a more appropriate fiscal structure, while at the same time insulating that structure more convincingly.

This section examines some of the key conceptual issues that should be considered in adjusting the underlying *structure* of fiscal policies in the context of an opening of the capital regime. In particular, a more globalized economy, with capital and conceivably labor more mobile, will impose constraints as to the type of fiscal structure that can be sustainably maintained. Significant differences in tax rates will provoke capital (and possibly labor) mobility, moreover, substantial differences in expenditure policies may have comparable effects. Second, adopting the tighter fiscal stance proposed in Section III will require governments to obtain greater clarity, both as to the core expenditure functions and tax policies which should be relatively insulated from macro pressures and in terms of the fiscal instruments that can best be used for macroeconomic adjustment purposes. Third, it may be necessary for fiscal authorities to consider whether one should seek a reduction in the sensitivity of the fiscal position to shifts in capital flows through a change in the composition of revenue and expenditure.

#### **A. Constraints on the Fiscal Structure Arising From Greater Globalization**

In the last two years, the constraints that globalization may impose on specific fiscal policies has begun to receive attention. For example, Tanzi (1995) has pointed out that a more open capital environment will constrain country "policy makers in their choice of tax structures and tax levels,"<sup>25</sup> with countries having much less ability to maintain significant differentials in tax rates on relatively mobile factors of production. Corporate profit tax rates are the most obviously constrained, but tax rates applicable to other forms of capital income (e.g., schedular tax rates on interest, dividend income or capital gains) also cannot diverge significantly from those prevailing in other competitor capital markets. While Tanzi has noted that this has initially led to alternative forms of tax competition, notably in the less obvious ways (such as the definition of the taxable base), the shift in competition merely creates new loci of pressures for a narrowing in such other differences.

It is also possible that increased immigration, particularly of skilled labor, may be facilitated by the process of globalization. Andersson (1995) has noted that if tax rates on capital income (particularly on financial capital) are lowered in order to continue to attract

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<sup>25</sup>See Tanzi (1995) for an extensive discussion on the impact of globalization on tax policies.



financial capital flows, it may be difficult to sustain high tax rates on human capital, given arbitrage possibilities and perceived inequities in the distribution of tax burdens. Both Andersson and Tanzi have noted that the possibilities for emigration of high productivity individuals is a factor influencing (if not constraining) tax rates on labor incomes. This results in downward pressure on tax rates "as something that is more or less inevitable."<sup>26</sup> Although the above considerations are less relevant for general sales taxes and excises, some analysts have noted that there are also limits on the extent to which the rates of these taxes can diverge. Pressures for harmonization of the VAT in the European Community have steadily intensified in recent years (Tanzi, 1995), the growing possibilities of cross-border shopping because of enhanced communication technologies is also a constraining element.

Thus, on the revenue side, open economies may be more constrained in terms of their capacity to raise the share of revenues that can be derived from some of the more important tax bases. As other authors have noted, this will force greater reliance on those tax bases for which greater degrees of freedom exist in the application of differential tax rates (notably sale and excise taxation, taxes on labor income, and property taxes).

Less attention has been paid to the implications of globalization for the expenditure side of the fiscal accounts, but one can easily envisage that significant differentials in the generosity of public benefit programs--unemployment insurance, health care benefits, pension systems (particularly in terms of the qualifications required for eligibility in drawing benefits) will be a factor inducing migration.<sup>27</sup> Understandably, such differentials may induce greater restrictions on eligibility rather than efforts to narrow differentials in benefit rates, if immigration proves costly for fiscal outlays (witness recent efforts in California and even at the federal level in the U.S.) In aggregate terms however, such competitive pressures may also limit the ability of governments to curtail certain types of expenditure programs.

#### **B. Identifying the "Core" Functions in the Fiscal Structure**

In terms of expenditures, it is easy to assert one's professional instinct that there is a core of government functions which should be "outside" the scope of fiscal policies used for responding to macroeconomic pressures, but it is more difficult to define this core. The extensive literature on the responsibilities which appropriately inhere in government is well known. Those goods and services involving significant externalities, "public goods," and redistributive functions would dominate any list. Most public finance analysts would include among public goods the provision of law and order, external security, the executive, legislative and judicial branches of government, the administration of market regulatory functions, and certain types of public infrastructure. Significant externalities accrue in the provision of primary education, public health immunization, and environmental regulations.

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<sup>26</sup>Andersson (1995), p. 4.

<sup>27</sup>Andersson (1995), p. 103.

Beyond the role that governments play in substituting for absent insurance markets, equity considerations obviously play a role in justifying many kinds of transfer programs. Interest outlays are by definition core contractual obligations of the Government at any time, although an obvious target for containment through a sustained reduction in government debt

Countries obviously have different views on which of these functions are perceived as critical "core" activities (for instance, the extent to which redistributive actions are seen as socially necessary) and on the qualitative and quantitative levels at which the government should provide different services. Attempts at definition are rendered more complex when one considers less the functional attribute of an expenditure and more the process by which a public service is produced, the terms on which transfers are provided (eligibility requirements, benefit levels), and the way in which the government, as a producer, purchases goods and ~~services in product and factor markets~~. Recent public sector reform efforts in such countries as New Zealand, Australia, and the United Kingdom have even sought to redefine the basis of the public sector's role and the way in which the private sector can be brought into supplying efficiently public sector functions. Thus, there may be agreement on what constitutes "core outlays" and yet significant differences as to how such core outlays are to be produced or the level at which core redistributive transfers should be provided

Such differences may allow for a significant margin in defining core expenditures, thus giving some flexibility to a government in determining how it protects the core expenditure areas while using fiscal instruments to respond to macroeconomic imbalances. Examples would include the government's policy toward civil service compensation (including adjustments for productivity and inflation, generosity of civil service pension system benefits, and nonwage compensation); the degree of indexation provided to public and private pensioners; and the role played by privatization, deregulation, and contracting-out.

To summarize, the concept of "core" expenditure responsibilities is not immutable. Ultimately, governments must assess the opportunity costs of accepting adjustments to the core, either in terms of the included goods, services, and transfers or in the nature of the processes by which such services or goods are produced or delivered.<sup>21</sup> What becomes

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<sup>21</sup>It is also useful to note the conflicting pressures that may emerge as authorities seek to define core expenditures in a situation where the revenue structure become more and more constrained. To the extent that it is perceived that labor incomes bear an increasing burden of taxation, the importance of a perceived link between expenditures and revenue becomes more critical. Justifying high tax rates on labor income requires a perception by the taxpayer that such taxes are matched by adequate publicly provided services and benefits; tax evasion emerges as a problem when this link is viewed as tenuous. Yet it is precisely those "core" functions which are labeled as "public goods" for which the link between taxation and direct benefit to the taxpayer is least obvious. Thus, an effort to concentrate on what might be traditionally defined as the hard core of public output may in fact prove most difficult to

(continued...)

important, in an open capital environment, is that governments actively consider and identify those elements in the expenditure structure (including its internal production function and transfer policy regime) which should not be subjected to significant macroeconomically-induced swings. Moreover, it is best that the defining of what is the core should not be determined by short-term macroeconomic considerations.

On the revenue side, the issues involved in defining the core are somewhat different. The taxation of some forms of income and of goods and services are more likely to give rise to greater allocative distortions or excess burdens than others. Notably, these would include taxes on factor services (labor and capital), excise taxes on goods with relatively elastic demand, tariffs on imports, and export taxes. We have argued that those types of taxes, which have significant efficiency effects (both intratemporally and intertemporally), should be least exposed to adjustments dictated by external macroeconomic pressures; they should be relatively stable and time consistent.

As discussed, a subset of such taxes, notably taxation of capital incomes, is particularly constrained by competitive pressures in an open capital environment. The tax rates feasible for others (income taxes, import tariffs, and excises on goods in elastic demand) are constrained by the need to limit excess burdens, and to a lesser extent, by competitive considerations. Such constraints may be politically unfortunate, in that they may limit the extent to which those taxes most relevant for achieving redistributional objectives can be dedicated to these goals. Nevertheless, these constraints suggest that the aggregate yield from so-called "core" revenues will essentially be dictated by the opportunities for broadening the tax base of these taxes and by the rate levels consistent with these constraints. Thus, in effect, one is left with a few, albeit important, tax bases which can be considered as relatively "adjustable" (e.g., sales taxes and certain excises) outside the core and potentially adjustable in response to macroeconomic pressures (see below).

A final consideration regarding the modification of the structure is the question of whether the authorities can reduce the degree of endogeneity in the response of fiscal revenues to capital flows. The most important revenue which is directly endogenous would be tariff receipts. This would suggest the importance of reducing the relative importance of tariff revenues in total revenue, in order to reduce overall revenue sensitivity to significant shifts in import flows. This will be particularly relevant if volatility in flows is matched by significant

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<sup>28</sup>(...continued)

finance in terms of taxpayer compliance.

shifts in imports of consumer goods.<sup>29</sup> Any other taxes closely related to capital flows, such as stamp duties or bank transfer taxes, should also be minimized

### **C. Fiscal Policy Responses with Limited Impact on Fiscal Structure**

Since fiscal policy instruments will need to be used at times in response to a significant shift in capital flows, the issue then is to identify those instruments which will distort the fiscal structure the least.

#### **Fiscal Policy Instruments that Least Impinge on the Fiscal Structure**

A number of fiscal instruments are available which, while not changing the level or structure of revenues and expenditures, may affect their timing during the budgetary year, the way in which the fiscal accounts are financed, and the form and location of government asset holdings. Specifically, since governments can exert discretion on the timing of some expenditures, they may be deferred until later in the fiscal year if a capital shock arises, but is expected to be reversible. Accelerating revenue collections is typically more difficult for most types of revenue, since it would require changes in collection procedures. Only in extraordinary circumstances would one be able or wish to make such changes in response to a capital shock. However, one should note that several industrial countries have devolved the capacity for such a policy, having introduced systems for more closely aligning the accrual of tax liabilities with tax payments.<sup>30</sup> Movements in the opposite direction are easier, particularly on the expenditure side, by accelerating expenditures. Less desirable, though obviously an option, would be a delay in the collection of taxes.

Shifting the locus of government bank deposits between the commercial banking system and the Central Bank may also prove a mechanism for adding or withdrawing liquidity from a financial system in situations of significant capital flows. Also, the way in which the government manages its debt maturity structure (including the currency in which the debt is denominated), as well as the way in which current budget deficits are financed, may influence the yield curve and thus affect the likelihood of capital flows into or out of the country.<sup>31</sup>

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<sup>29</sup>While this issue has proven particularly important in some Latin American countries, this issue may become increasingly less relevant as countries move to open up their trade regimes (at least in the context of regional trading blocs).

<sup>30</sup>For example, in the U.S., advanced payments systems have been introduced to provide for weekly or fortnightly payments by enterprises of payroll taxes and withheld income taxes. The frequency of required payments of VAT can be increased, though this may give rise to administrative complications.

<sup>31</sup> See Calvo (1995) for an examination of the pros and cons of different debt mixes in this  
(continued...)

Longer term financing (particularly if externally rating acts as a disciplinary force) is likely to be less susceptible to sharp capital flow movements.

A strengthening of budgetary institutions and processes and enhanced transparency in budgetary operations may, at the margin, also contribute to a perception of tightened fiscal management. The effect would be to give greater confidence to the capital market that the government can meet its budget targets and will not be buffeted by significant hidden, implicit debt of unknown proportions.

### **Expenditure Policy Instruments for Fiscal Policy Management**

The types of expenditure policy instruments that are most suitable for adjustment in response to capital flows are those which can most readily be reversed. By applying stricter criteria as to which expenditures should be "insulated" as part of the core functions, the scope for such expenditure variability would become significantly reduced. This suggests that augmented revenues derived from capital inflows (either indirectly via higher tax returns or directly from financing for investment projects) should be used to finance noncore expenditures which can be quickly curtailed as needed and with significantly lower opportunity cost, in the event of a sharp reversal of capital flows and associated diminished receipts to the budget. Keynesian "off-the-shelf" projects of limited duration and size are of this type (though it is questionable whether this was ever, in fact, a realistic perception of how productive investment projects are developed and implemented).

As noted above, the scope for flexibility may arise largely in the way in which core activities are produced, in how the government behaves at the margin as a purchaser of goods and services in the market, and in the way it adjusts the terms at which transfers are delivered in the context of inflationary developments. For example, this includes the pace at which certain fiscal outlays are adjusted for productivity (e.g., civil service wage rates) or inflation (in addition to wages, other public sector benefit payments, such as pensions), recognizing that ultimately some catching up may be necessary when a more relaxed fiscal position can be accommodated.

There are alternative ways in which the choice of candidates for expenditure adjustment have been analyzed. Reflecting the strand in the literature that focuses on the

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<sup>31</sup>(...continued)

context. In particular, he notes the dangers associated with excessive reliance on short-maturity debt, since it can trigger a "self-fulfilling speculative attack." While recognizing that extending the debt maturity can be costly, the higher premia that may be associated with longer term debt should be "a warning signal to policy makers that credibility is slim." (p. 16). He also notes that foreign holdings of short-term public debt are particularly volatile, and it may be advisable to endow such debt with characteristics that make it somewhat unappealing to foreign holders.

macroeconomic effects of particular expenditure cuts, Schadler et. al. (1993) have argued that in periods of capital inflow, an important consideration in cutting expenditure is the extent to which spending items are concentrated on traded or nontraded goods. During capital inflows, cuts in outlays on traded goods would further add to pressures for a real exchange rate appreciation; thus, cutbacks in nontraded goods would be preferable to achieve fiscal consolidation.

In contrast, cutbacks in traded goods would be more appropriate during periods of capital outflow, where a strengthening of the trade balance would be necessary. While such a distinction can reasonably be made with respect to certain types of public outlays (notably import-intensive capital projects), the categorization of many types of government expenditures in terms of their likely impact on traded vs nontraded goods may be less transparent, depending more on the nature of the consumption function of recipients of government payments. It may also conflict with the more fundamental allocation or distributional criteria which are the basis for such expenditures in the first place.

The possibility of a Ricardian offset might also affect the choice between expenditure and tax instruments. Tax increases could be offset by reduced private savings, thus partially reducing the net aggregate demand impact and the possible effect in minimizing crowding out effects.<sup>32</sup> However, consolidation achieved through expenditure policies could have a similar effect, particularly if achieved by transfers or income payments to groups with some capacity to reduce their savings rates.

### **Revenue Policy Instruments for Fiscal Policy Management**

In contrast to the revenue instruments that form part of the core, we have noted that other types of taxes are more amenable to adjustment. road based sales taxes on goods and services, such as retail sales taxes or a value added tax, are particularly powerful tax instruments that can be used for adjustment purposes, since small rate changes can generate significant revenue effects. Optimal tax theory would also suggest taxes on goods which are inelastic in demand (e.g., some excises). his also argues for the possibility of higher taxes on immobile factors. However, in a more globalized environment, the definition of "mobility" may be less obvious than in the past, limiting the possibility for increased taxation on real estate and inheritances.<sup>33</sup> Finally, although we have noted the difficulties of capital taxation that is not harmonized with other emerging market and industrial economies, one can also recognize that such taxes can be a vehicle, albeit risky, to influence capital flows as an explicit policy instrument (a policy adopted in some Southeast Asian countries).

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<sup>32</sup>Most empirical estimates suggest a Ricardian offset of about half.

<sup>33</sup>Andersson (1995), p. 119.

## V. CONCLUDING REMARKS

The aim of this paper is to provoke discussion on how countries should manage fiscal policy as they move to more open capital regimes. It asks to what extent fiscal tightening should be a significant element in the policy response to capital flow shocks. It looks at the circumstances in which it is appropriate to allow automatic stabilizers to weaken the fiscal balance, rather than responding to such a weakening with further fiscal cutbacks. And it assesses the extent to which fiscal policy--or at least certain elements of the fiscal structure--should be insulated from the need for adjustment in response to conjunctural circumstances. It is worth stressing that the paper does not dispute the necessary role for fiscal policy in situations where the fiscal deficit and public debt burden are unsustainable over the medium- to longer-term. Rather, what is at issue is the appropriate fiscal response to an increase in short run capital volatility.

The shift from a closed to an open capital regime heightens the degree of uncertainty in macroeconomic management. The additional uncertainty associated with volatile capital flows implies that fiscal policies need to be formulated bearing in mind that one could observe significant inflows or outflows at any time. Both inflows and outflows may lead to calls for additional fiscal adjustment, compared with what was considered appropriate for a closed capital regime. This is particularly likely when governments put constraints on exchange rate adjustment. The "asymmetry" in the usually-recommended policy response (a cut in the fiscal deficit to reduce pressure on interest rates during inflows; and a cut in the deficit to reduce absorption to stem outflows) leads to the argument that the expected value of the appropriate fiscal stance in an open capital regime is more conservative than when capital is immobile.

This conclusion, in turn, leads to the prescription of a need for preemptive tightening as the capital regime is opened. This somewhat contentious recommendation may be supported by several broader arguments. The tighter underlying stance permits greater insulation of core revenues and expenditures from calls for frequent adjustment following macroeconomic shocks. It provides an in-built discipline to the conduct of fiscal policies; stabilizes market expectations with respect to the underlying tightness of the fiscal position and the potential swings in a country's fiscal position that are seen as consistent with prudent fiscal policy; and responds preemptively to the possibility of higher risk premia on government borrowing.

A tighter underlying stance would not preclude the need for further fiscal adjustment in the face of large and volatile capital flows. However, the required changes might be expected to be smaller. The paper argues that reducing the size of the average needed fiscal response has, in itself, important virtues. Most importantly, fiscal policy is not well-adapted to be a useful instrument of short run macroeconomic adjustment, particularly in contrast to other instruments like the exchange rate. The components of fiscal policy--taxes and spending programs--have important economic and social objectives which could well be compromised if large quantity adjustments are demanded at short notice. In the same vein, many fiscal variables are difficult to manipulate flexibly in the short-run, with the result that fiscal interventions can

involve high transaction costs and create distortions in resource allocation. The consequence of both these problems is that a response to capital flows using fiscal instruments may generate a cumbersome, slow, and uncertain economic reaction, with unintended side effects and substantial domestic costs.

If a fiscal response is judged unavoidable, the paper suggests that some components of fiscal policy are easier to manipulate and are more effective, and create fewer distortions than others. In particular, revenue-raising through sales taxes and excises is likely to be relatively successful, while expenditure cuts could best be focused in areas directly linked to the capital flows (such as investment projects). To limit disruptions to core revenues and expenditures, it may also be possible to manage adjustment through judicious timing of leads and lags--  
-delayed wage adjustments to productivity or inflation; within-year rephasing of expenditures, and changes in the government's financial portfolio (or even in the way the portfolio is managed).

The paper also emphasizes that the shift to an open capital regime adds considerable complexity to efforts to get a true reading of the actual stance of fiscal policy. This underscores the need, in the globalized economy, for greater transparency and clarity about the "fiscal rules" that govern the fiscal stance, the nature of the fiscal policy response to capital flows, and the actual fiscal position, in order to ensure that international capital markets correctly perceive the conduct of fiscal policy.

Finally as many analysts have already noted, a more open capital environment imposes constraints on the type of fiscal structure that is sustainable. To account for these constraints appropriately, governments should use the opportunity of a move to an open capital regime to reevaluate their expenditure and revenue policies, and identify those "core" elements in the fiscal structure which should not be subjected to significant, macroeconomically-induced swings. Such an exercise will also facilitate identification of the types of fiscal variables which can be used to respond, as needed to capital flow shocks.



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