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Fiscal Issues in Adjustment

An Introduction

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This summary of the fiscal issues in adjustment in developing countries focuses on the macroeconomics of adjustment (the size of fiscal adjustment, the impact of deficit reductions, and methods for reducing the deficit), fiscal system reforms (spending cuts and tax reform), and new directions for research (the growth effects and the political economy of fiscal policy).

This paper — a product of the Trade Policy Division, Country Economics Department — is part of a larger effort in PRE to study the sustainability of adjustment (RPO 675-32). This paper appeared in a symposium, *Fiscal Issues in Adjustment in Developing Countries*, published by *Recherche Economique*, vol. 14, 1990. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Dawn Ballantyne, room N10-019, extension 37947 (26 pages).

Adjustment to the macroeconomic crises of the eighties was least successful on the fiscal front. Faini and de Melo, in this introduction to a symposium on fiscal issues in adjustment, summarize the issues raised by papers in the symposium.

Those papers deal with various aspects of the fiscal crisis that many developing countries faced in the eighties. After a brief introduction on the magnitude of the crisis, Faini and de Melo summarize issues discussed in three areas.

On the macroeconomics of adjustment, they discuss the size of fiscal adjustment, the impact of deficit reductions, and the methods of reducing the deficit. On fiscal system reform, they survey reforms occasioned by the fiscal crisis: choice of spending cuts and reform of the tax system. They close with a discussion of new directions for research: the growth effects of fiscal policy and the political economy of fiscal policy.

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1. Introduction

Rising international interest rates, falling terms of trade, and the foreclosing of commercial credit, forced the majority of developing countries to pursue drastic adjustment policies. In spite of differences in initial conditions and in ideological predilections, common adjustment patterns were observed across many countries. Initially the focus was on short-run stabilization, in particular on restoring a viable balance of payments and on servicing the external debt. Soon it became apparent that short-run measures alone would be insufficient to restore sustainable long-run growth. Short-run measures were thus complemented by structural reforms aimed at increasing the efficiency of resource use. Yet, for many observers, the success of adjustment has been limited to containing the debt crisis. Growth has only resumed in a handful of countries. Severe macroeconomic imbalances subsist in the remainder.

It is now widely recognized that adjustment was least successful on the fiscal front. Dealing with fiscal deficits remains today one of the most vexing problem for the majority of developing countries. For many, growing fiscal deficits led to money creation as the main source of financing followed by spiralling inflation, an erosion of the tax base, and even larger fiscal imbalances. Even countries that contained their fiscal deficits usually did so at great costs mainly by indiscriminate expenditure cutting. The inability to raise taxes made apparent many inherent flaws in their tax systems. Thus, to successfully cope with the fiscal crisis, short-run fiscal measures had to be accompanied by major overhauls of the tax system.

The origins of the fiscal crisis are well-known. For countries that had access to borrowing on private capital markets, the recycling of petrodollars at low borrowing costs opened the door to ambitious investment programmes. The average private investment rate for a sample of middle-income countries (public investment rates in parenthesis) rose from 19.0 (6.2) percent of GDP during 1970-74 to 22.6 (7.9) percent during 1975-82. A similar pattern was observed for low-income countries which also experienced a rise in public and

private investment rates (see Faini and de Melo (1990, table 4)). For borrowers in capital markets, the crisis occurred when they could no longer borrow while being concurrently faced with higher interest rates on their external debt. For low-income countries, the fiscal crisis was exacerbated by deteriorating terms of trade.

The papers in this symposium deal with issues raised by the fiscal crisis. In section 2, we discuss the relationship between the external debt and the fiscal crisis and take a look at recent trends in fiscal deficits, government expenditures and fiscal revenues. The next two sections review briefly the main themes covered by the papers in this symposium: section 3 covers the macroeconomics of fiscal deficits and section 4 issues in reforming fiscal systems. Finally section 5 suggests new areas for research.

2. Fiscal trends: a look at the evidence

The immediate origins of the fiscal crisis was the assumption by governments -- under strong external pressure -- of privately contracted debt. Governments also faced internal pressures caused by the effects of short-run adjustment policies involving sharp devaluations required to raise foreign exchange to service the external debt. The ensuing sharp depreciations of the real exchange rate helped generate the needed foreign exchange, but resulted in capital losses for foreign-denominated debt holders. Thus, in addition to guaranteeing the privately contracted external debt, governments faced increasing budgetary pressures as they often had to grant preferential exchange rates to holders of foreign debt to cushion capital losses.

As a result, the external debt problem became first and foremost a fiscal problem. Real exchange rate depreciation and aggregate demand contraction would succeed in improving the current account and would help the economy service its external debt. But, typically, foreign exchange earnings were in private hands, while foreign exchange obligations were publicly held. A way had to be found to transfer foreign exchange earnings from the private

sector to the government. This dual need to transfer resources abroad and, internally, from the private to the public sector, has become known as the "twin transfer problem".

How important has been this fiscal crisis and how have countries reacted to the crisis? To answer properly this question requires comparable data on the consolidated public sector (inclusive of the Central Bank, local governments and public enterprises). As mentioned earlier, many fiscal operations like foreign exchange subsidies were undertaken by the Central Bank. These operations often amounted to a sizable percentage of GDP. Unfortunately, they do not figure in the widely available data sets like the International Monetary Fund's Government Financial Statistics (GFS) which only report Central Government operations. Still, these statistics are useful to indicate broad trends for the universe of developing countries and are used in the tables that follow.

Tables 1 and 2 give averages for middle and low-income countries between 1975 and 1988. The breakdown into period averages is to smooth out year-to-year fluctuations, and to try to capture the effects of significant changes in the external environment. The breakdown into two country groupings reflects the widely held view that low-income countries have less resilience in their fiscal systems and a different tax revenue structure because of a larger share of agriculture in GDP (a sector difficult to tax) and because of less-developed administrative capabilities.¹

The two tables suggest several stylized developments. Start with fiscal deficit and expenditure trends in Table 1.² First, the overall deficit showed a worsening trend during the period of easy money (1979-81) and during the aftermath of the debt crisis (1982-85) for both low-income and middle-income countries. This worsening trend was only arrested for middle-income countries in the last period (1986-88) when the overall deficit was, on average, reduced by two percentage points of GDP. During the first sub-period this trend reflected expansionary fiscal policies, as indicated by the evolution of total expenditures in column 3. Starting in 1982, with the onset of the debt

Table 1

Fiscal Deficits and Expenditure Trends: Period Averages for Low-Income (LY) and Middle-Income (MY) Countries

Period Averages	Overall Deficit/GDP		Primary Deficit/GDP		Total Expenditure(TE)/GDP		Interest Payments/TE		Capital Expenditures/TE	
	LY	MY	LY	MY	LY	MY	LY	MY	LY	MY
1975 to 1978	-3.2	-1.7	-3.2	0.0	19.1	19.5	5.4	6.3	22.8	25.7
1979 to 1981	-3.8	-2.1	-2.9	0.0	20.0	21.3	7.2	8.8	22.3	22.4
1982 to 1985	-4.3	-4.0	-2.5	-1.1	20.5	23.0	11.7	14.9	20.	17.4
1986 to 1988	-4.3	-2.1	-1.5	1.4	21.0	21.7	13.5	17.8	24.7	15.3

Notes: Low-income (LY) countries (36) are countries with a 1980 income per capita below \$500. Middle income (MY) countries (45) include countries with an income per capita above \$500 and below \$4000.

Data Sources: Government Financial Statistics of the IMF deficit refers to the deficit of the central government.

Table 2

Fiscal Revenue Trends: Period Averages for Low Income (LY) and Middle-Income (MY) Countries

Period Averages	Total Revenue (TR)/GDP		Income Tax/(TR)		Domestic Tax/(TR)		International Tax/(TR)		Grants/(TR)	
	LY	MY	LY	MY	LY	MY	LY	MY	LY	MY
1975 to 1978	16.1	17.5	23.2	25.0	24.1	30.9	32.3	23.8	8.0	4.3
1979 to 1981	15.8	19.3	22.4	28.3	27.9	35.1	35.1	21.6	10.2	4.0
1982 to 1985	17.0	20.4	23.2	28.3	19.1	40.9	29.2	19.8	8.3	3.1
1986 TO 1988	16.3	20.8	22.4	26.7	27.3	37.7	30.9	17.6	9.9	3.4

Notes: Same definitions and same sample as in Table 1.

Data Sources: Same as Table 1.

crisis, higher interest payments (column 4 in Table 1) account significantly for increasing budget imbalances. The primary deficit, which excludes interest payments and is largely outside the control of fiscal authorities, may therefore provide a better indicator of the governments' efforts to reduce fiscal imbalances. The trend revealed by the period averages in Table 1 suggests that it is only since 1986 that an improvement is noticeable in the primary deficit, especially among middle-income countries which managed a swing of 2.5 percentage points of GDP to produce a primary surplus. Not surprisingly, the brunt of adjustment among middle-income countries fell on capital rather than on current expenditures. Somewhat surprisingly, the data indicate an increase in capital expenditures for the low-income group since 1986. However, overall, the figures in Table 1 indicate a great insensitivity of total government expenditures to the fiscal crisis.

Turning to fiscal revenues, they too, have been insensitive to the fiscal crisis (Table 2). Since the onset of the crisis, neither group has been able to raise significantly fiscal revenues. Moreover, both groups have registered a declining share of income taxes in total revenues. Direct taxes being typically the most progressive and buoyant component of the tax system, this trend may signal both, efficiency loss, and equity deterioration. For low-income countries, trade tax revenues continue to be the most important source of tax revenue. With import growth effectively constrained by foreign exchange earnings, the reliance on trade taxes further reduces the buoyancy of the tax system for this group of countries. At the same time, the role of foreign grants in helping alleviate the crisis has been relatively small, even for low income countries.

Stagnant fiscal revenues coupled with difficulties in compressing expenditures, implies limited progress towards reducing fiscal imbalances.³ With foreign borrowing foreclosed, this meant that governments had to rely on domestic sources of financing. For countries with relatively underdeveloped capital markets, borrowing from the Central Bank was the only remaining option. The ensuing increase in liquidity could only result either in

run-away inflation, or in capital flight, or in a combination of both. Countries with more developed financial markets, could rely on non-inflationary sources of finance at the cost of higher interest rates, and possibly unstable debt dynamics.

3. The macroeconomics of fiscal adjustment

The debt and fiscal crises combined to force many developing countries to undertake adjustment programs, often with the support of international organizations like the IMF and the World Bank. The immediate aim of these programs was to stabilize the economy by eliminating the main sources of macroeconomic imbalances. To help restore growth, these programs included structural reforms in the areas of trade, financial, agricultural and public sector management policies. These reforms, designed to improve resource allocation and broaden the scope of market mechanisms, were heavily criticized for their alleged ideological bias and poor design.⁴ Fiscal policy came to be an essential component of adjustment programs. On the one hand the recovery of fiscal discipline was viewed as a prerequisite for macroeconomic stabilization. On the other, the reform of existing fiscal incentives was deemed a fundamental step in eliminating the major growth-retarding distortions.

a) The size of fiscal adjustment

While the need for fiscal restraint was not generally disputed, the size of the required fiscal adjustment was much more controversial. As noted by Vito Tanzi in "Fiscal Issues in Adjustment Programs", programs may have possibly aimed at the elimination of fiscal deficits. However, quite fortunately, this balanced budget rule has not proved to be popular in the design of actual adjustment programs. A more flexible approach is to try to evaluate the size of the budget deficit which can be financed without causing

major macroeconomic imbalances. This is, at large, the approach taken by the International Monetary Fund. There are of course severe problems in assessing the long-run viability of fiscal policy. First, as mentioned earlier, is the statistical difficulty of assembling comprehensive information about the public sector's operations, including the Central Bank, local governments, etc. Second, there are still unresolved theoretical issues. In her paper, building on the work of Sargent and Wallace (1981) and Buiter (1985, 1988), Martha de Melo presents in her paper "Fiscal Adjustment in High-Debt Countries" an interesting attempt to compute the size of the required fiscal adjustment. Her starting point is the government budget identity which states that the sum of the primary deficit and interest expenses must be financed from a combination of foreign borrowing, domestic borrowing and money creation. To take the simple case of a financially closed economy (i.e. an economy with no foreign debt), simple manipulations of this identity lead to the well-known equation for debt dynamics:

$$(1) \quad \dot{b} = (r - n) b + d - m$$

where b , d and m denote respectively the stock of public debt, the primary deficit and the size of monetary financing. All variables are normalised by GDP and a dot represents a time derivative. In this identity r and n indicate the real interest rate and the growth rate of the economy, respectively.

This equation, which can be generalised in several ways to allow for foreign debt and public investment, is useful for sustainability analysis. Suppose the government aims at stabilising the debt to GDP ratio (i.e. to achieve $\dot{b} = 0$), but at the same time wants to avoid excessive reliance on inflationary financing. For given values of r and n , one can use equation 1 to compute the resulting primary deficit, d . One interesting implication of this approach is that, by postponing adjustment and letting the debt to GDP ratio grow further, the sustainable primary deficit will be smaller and the required adjustment larger. Data limitations force de Melo to apply this approach only

to a handful of countries. Her results suggest that high-debt countries have progressed toward sustainability, but at the cost of large scale financial repression. As a matter of fact, a typical feature of her sample of countries is that they pay a very low interest rate on domestic debt. This may not be a sustainable feature. Interestingly enough, her calculations indicate that even low-debt countries appear to have a fiscal problem. The required deficit reduction for this group is estimated to be 2.5 percent of GDP.

While this sustainability approach provides several useful insights, its shortcomings should not be underestimated. For instance, a crucial assumption is that both the growth rate and the real interest rate are exogenously given. If we allow for the likely impact of fiscal policy on both r and n , the conditions for sustainability are likely to be much more stringent (Galli, 1985). Indeed, for a given monetary policy, an expansionary fiscal policy will lead to higher real interest rates and, as a result, to lower investment and lower growth. Finally note that, in computing the cost of domestic debt, one typically has to rely on average values. With widespread financial repression, this may represent a fairly inaccurate measure of the marginal interest rate on domestic debt. Then the sustainable deficit calculations will underestimate the required adjustment.

b) The impact of deficit reductions

Economic theory alone does not provide an unambiguous answer on the macroeconomic effects of deficit reductions. Depending on the assumed macroeconomic closure, the mode of deficit financing and the initial conditions in the economy, the theoretical outcome of greater fiscal restraint will be different. However, under a set of well defined assumptions, this ambiguity disappears. In his paper "Orthodox Models for Adjustment and Growth", Peter Montiel provides a neat description of the so-called orthodox model of adjustment. His model may not provide an accurate description of actual adjustment programs supported by the IMF or the World Bank, but it

gives useful insights on the theoretical underpinnings of those institutions' recommendations.

Consider the case of a small open economy, where output is supply determined and full employment conditions prevail. Output growth is a function of the availability of capital only. However, because of the existence of a repressed financial system, capital accumulation, i.e. investment, is determined residually by credit markets conditions. More specifically, investment is equal to private saving minus the desired accumulation of financial assets by private agents plus the change in the stock of banks' credit to the private sector. Consider then the effect of a decline in the rate of change of the public sector's credit (brought about by a fall in government spending). Suppose also that this decline is matched by a (smaller) increase in credit to the private sector. By assumption, income and interest rates are unaffected. Therefore, also saving and assets accumulation do not change. Investment, as a result, increases with a beneficial impact on growth. Also, given that the increase in investment is smaller than the (absolute) value of the decline in government spending, total absorption falls and the current account improves. The orthodox model therefore predicts an unambiguous positive impact of fiscal restraint on both growth and the external account.

The two assumptions that output is supply determined and that there is no independent investment function play a critical role in the orthodox model, as pointed out by Montiel himself. In "Fiscal Issues in Macroeconomic Stabilization: A Structuralist Perspective" by Lance Taylor, he analyses the implications of relaxing these assumptions. First, and foremost, the decline in aggregate demand attendant on a more restrictive fiscal policy stance may have a contractionary impact on output. The evidence Taylor relies upon comes from a study of stabilization episodes in 18 countries, organised by the World Institute for Development Economics Research (WIDER). Those studies show that fiscal restraints were generally followed by a fall in output levels. Second, the contractionary impact of restrictive fiscal policies may be amplified by the ensuing fall in investment. Total investment may fall, rather than

increase as predicted by the orthodox model, for two reasons: a) the contraction in aggregate demand may, through a standard accelerator effect, depress investment; b) typically, public investment takes the brunt of fiscal cuts and may be complementary to private investment. As to the alleged positive effects of fiscal deficits reductions on the current account, Taylor argues that such improvements must be predicated mostly on the fall of imports coming from output contraction. Unless export goods are also consumed domestically (rice in Thailand) or manufactures represent a substantial share of total exports, export growth will not be the major factor behind the improvement in the current account.

The conflicting predictions of the structuralist and orthodox models with respect to the behaviour in investment are further investigated by Ajay Chhibber and Mansoor Dailami in their paper "Fiscal Policy and Private Investment in Developing Countries: Recent Evidence on Key Selected Issues". In their review of existing empirical evidence, they conclude that expansionary fiscal policies will typically crowd out investment through credit rationing and interest rate effects. The relative importance of the two channels will depend on the degree of financial liberalization in the economy. In a financially repressed economy, even a money-financed fiscal expansion will be associated with lower investment, insofar as the consequent rise in inflation will reduce real interest rates and depress saving. On the structuralist side, Chhibber and Dailami find that, to a large extent, an increase in public investment has a positive effect on private investment.

c) Fiscal effects of devaluation

The typical structuralist critique of orthodox policy packages is that they impose unnecessary hardships. One such example is the potential unintended contractionary effect of a devaluation. In a classical contribution, Krugman and Taylor (1977) argued that devaluation may be contractionary insofar as it redistributes income from low to high savers and depresses demand. Later contributions (see citations in Chhibber and Dailami)

have shown that, to the extent that it leads to higher real prices of imported inputs, to higher product wages under widespread indexation or to a lower volume of credit, devaluation may be contractionary also from the supply side. Overlooking the potential contractionary impact of a devaluation in an adjustment program which relies on devaluation, may therefore lead to a severe output loss, i.e. to an "overkill" which is often mentioned in the structuralist literature.

Devaluation is also likely to have fiscal effects. First is the capital loss resulting from a real exchange rate depreciation that was mentioned earlier. Given the large magnitude of estimated real exchange rate depreciation occasioned by the debt crisis (Faini and de Melo, 1990, Table 1 estimate an average real exchange rate depreciation of between 30 and 40 percent during 1982-86 compared with 1978-81 levels), this capital loss is likely to be substantial. Second, large debtors may also be large in their principal export markets (Brazil in coffee). For those large debtors, relying on devaluation to generate foreign exchange to service their debt is likely to lead to a terms of trade loss. Presumably small countries in their principal export markets should not be worried about using devaluation because they face exogenous terms of trade. Not so. In his paper "The Transfer Problem in Small Open Economies: Exchange Rate and Fiscal Policies for Debt Service", Dani Rodrik shows that, as is often the case, conventional presumptions can happen to be quite misleading. Consider the case of a small debtor country. Most of its foreign debt is in the hands of the public sector. As mentioned earlier, this is a realistic feature of most highly indebted developing countries. The economy faces a double transfer problem: resources must be transferred abroad to service the foreign debt, but first the public sector must obtain the required foreign exchange from the private sector. A real depreciation, i.e. a fall in the relative price of non-traded goods, will facilitate the external transfer (by compressing the excess demand for traded goods), but may exacerbate the problems arising from the required internal transfer. Consider the case where non-traded goods are a net source of revenue

for the government. A real depreciation will then worsen the government's terms of trade with respect to the private sector. If the government relies at the margin on a distortionary tax (like the inflation tax) to meet its revenue needs, it will need additional revenue with detrimental effects on the economy. Debt service therefore entails a "secondary burden", beyond the resource loss caused by transferring resources abroad, because of deteriorating internal terms of trade. Rodrik shows that, tariffs and, perhaps surprisingly, even export subsidies can be welfare improving to the extent that they allow debt service without generating a terms of trade loss for the government.

d) Expenditure cuts or tax increases?

IMF conditionality usually focusses on overall deficit reduction and refrains from indicating how this objective should be achieved. According to Joseph Gold of the IMF, "the Fund should not become involved in the detailed decisions by which general policies are put into operation."⁵ In this approach, the choice of which taxes to raise and which expenditures to cut does not belong to the mandate of the IMF and is therefore left to domestic policy-makers. Yet, as Tanzi convincingly argues, the choice between increasing revenues and reducing expenditures represents "a central question in adjustment programs", with significant macroeconomic and microeconomic implications.

Consider first the issue from a macroeconomic point of view. Standard multiplier analysis suggests that the contractionary impact of expenditure cuts would be larger than the one resulting from a tax increase. Utility-based models have stronger theoretical foundations, but fail to provide unambiguous answers. Crucial and unresolved issues in this respect include the planning horizon of economic agents and the private utility implications of government spending. A useful benchmark is provided by the simple case where public expenditure does not affect the marginal utility of private consumption. Consider the case where agents are infinitely lived, presumably in a dynastic sense. Then, under somewhat further stringent

conditions, Ricardo-Barro equivalence applies: a tax increase today, matched by lower domestic borrowing, will lead agents to expect lower future taxation and will be fully matched by a decline in saving. Therefore, total aggregate demand will be unaffected. Similarly a decline in government spending will not affect, by assumption, private marginal utility, but will induce private agents to expect lower future taxation. The consequent increase in private consumption will again fully offset the decline in government spending. Suppose however, as in Blanchard (1985) that, because of a finite probability of dynastic extinction, private agents discount the future at a higher rate than the government. Then, expenditure cuts and revenue increases may have different macroeconomic implications. More specifically, because of the existence of a finite probability of death, increases in tax revenues today will not be fully discounted into lower future taxes and will therefore lead rational private agents to reduce consumption. Similarly reductions in government spending will not be fully offset by increases in private spending. Which of the two strategies is more contractionary will depend in a complex way on the time pattern of future government surpluses. The earlier taxation is expected to decline in response to the drop in public spending, the more limited will be the recessionary impact.

The previous discussion abstracts from several complicating factors. For instance, it does not allow for the effect of liquidity constraints on households which would prevent the intertemporal smoothing of consumption in response to variations in disposable income. The models also postulate the existence of lump-sum taxation. Financing choices become therefore irrelevant. This result would no longer hold if the government had to rely on distortionary taxation (Rodriguez, 1989). The problem becomes more complex yet, if government expenditures affect private marginal utility. Then a reduction in public spending will lead to more (less) private spending, provided the two bear a substitute (complementary) relationship.

Empirical evidence on the importance of Ricardian equivalence in developing countries is scant. Haque (1988) finds little empirical support to

the claim that agents and governments discount the future at different rates. Rossi (1988) is unable to identify a clear pattern of substitution between private and public spending from a large cross-country analysis of developing countries. In the same paper, however, Rossi provides convincing evidence about the pervasive presence of liquidity constraints in LDC's. That finding, by itself, casts doubt on the empirical relevance of Ricardian equivalence for developing countries and is consistent with the results in Haque and Montiel (1988) who find little or no support for Barro's proposition in an empirical analysis of consumption behaviour in 15 developing countries.

So far no mention has been made of the distributional effects of deficit reductions. In their paper "The Fiscal System, Adjustment and the Poor", Giovanni Andrea Cornia and Frances Stewart show how various strategies to achieve a given deficit reduction have different distributional implications. More specifically, they show that, typically, the poor are little affected by taxation, but may somewhat benefit from government spending. Provided that the alleviation of poverty represents a primary objective of public policy, then reduction in fiscal imbalances should focus mostly on increased taxation. Unfortunately, according to Cornia and Stewart, actual adjustment programs undertaken with the support of the IMF appear to privilege expenditure cuts -- a fact also acknowledged by Tanzi. This pattern may not necessarily be attributable to a full neglect of the objective of poverty alleviation, but simply to the political and administrative difficulties of raising government revenues.

4. Reforming the fiscal system

Stagnant economic growth and the limited progress towards fiscal stabilization, in particular the inability to raise significantly government revenues, brought to the forefront the need to introduce radical reforms in developing countries' fiscal systems, with the dual objectives of improving resource allocation and avoiding indiscriminate expenditure cuts. Widespread

reforms could no longer escape the issue of which expenditures to cut and which taxes to raise. Also, the fiscal component of adjustment programs should be evaluated not only on the basis of the deficit reduction they had achieved, but also on the quality of the fiscal adjustment. Previously, Tanzi (1989) went so far as to argue that the Fund should be ready to relax its fiscal conditionality and require less fiscal adjustment, provided that efficient, growth-enhancing measures were being concurrently introduced. In this way the danger of future policy reversal, most likely with temporary palliatives and growth-retarding measures, would be minimised, and the durability of adjustment ensured. Focus on the quality of adjustment would have both efficiency and equity implications, as pointed out by Cornia and Stewart. We review the evidence on the choice of expenditure cuts and in the design of tax reforms.

a) The choice of expenditure cuts

As pointed out in the introduction, public investment took the brunt of expenditure cuts. How to evaluate a reduction in capital expenditures is a difficult, and yet, largely unresolved issue. On the one hand, inefficient public enterprise investments can, and should be, cut. On the other hand, public sector investments that generate externalities and that are largely complementary with private sector investments should be maintained. So should investments with high social returns. Not surprisingly, the valuation of public investments is touched upon in three papers in this symposium.⁶ A promising strategy to determine where to cut public expenditure would be to try to identify, possibly with the support of the World Bank, a set of public investment projects with the highest social rates of return. This raises, however, several thorny issues. In his paper "Prices, Taxes and Planning", Nicholas Stern analyses the interaction between tax policies and project evaluation. He shows how cost-benefit analysis can be a useful guide to public investment selection and highlights the pitfalls of relying on market prices alone as a guide to action in the presence of widespread distortions.

Most contributions in this symposium agree that current expenditures should also share some of the cuts. They often disagree, however, on the distribution of these cuts across expenditure categories. Tanzi, for instance, argues that cuts in public employment should be preferred to reductions in public wages. His argument is that the latter are not sustainable and will be soon reversed when the economic emergency subsides. Also wage cuts may lead to loss of motivation and lower productivity. Cornia and Stewart, on the other hand tackle the issue from an equity point of view. They argue that cuts in public wages will not have a regressive distributional impact to the extent that public employees belong to the upper middle-income scale. Instead reductions in public employment are likely to reduce the provision of public services with a negative impact on the poor. However they concur that reductions in public wages may have negative efficiency implications. A further area of disagreement involves the extent to which consumers' subsidies should bear the consequences of fiscal restraints. As pointed out by Tanzi, subsidies often benefit the middle class with little effect on the poor. Finally, all agree that military expenditures should not be spared.

Cornia and Stewart also raise a forceful argument with regard to the distribution of expenditure cuts. On the basis of a large body of empirical evidence, they argue that poverty alleviation and fiscal expenditure discipline are not incompatible, provided that governments are willing to undertake a radical modification in the distribution of expenditures. The issue arises at two levels. First, regarding the intersectoral allocation of public expenditure, they show that regressive expenditures have acquired a greater share of total spending for Latin America and Africa. Second, is the issue of the intrasectoral allocation of public spending. Cornia and Stewart provide vivid illustrations of the choices between child feeding vs. urban subsidies, primary vs. higher education, preventive vs. hospital care. Lower volume of overall spending are compatible, in their approach, with a better targetting of government spending which could contribute substantially to the

objective of poverty alleviation. As far as actual trends are concerned, they find that little progressive intrasectoral reallocation has occurred in health care, but that more promising indications appear from trends in education.

b) Reforming the taxation system

Equity and efficiency issues arise also in the design of taxation reform. In his paper "Recent Experience with Tax Reform in Developing Countries", Wayne Thirsk provides considerable evidence both on the existence of widespread distortions and on the pattern of recent tax reforms in developing countries. Usually the stimulus for tax reforms came from large and unsustainable fiscal deficits. Thirsk shows how the tax system in many developing countries was heavily influenced by their colonial legacy, as it was modelled along the lines of those found in developed countries. This influence was reflected in a very complex tax structure with emphasis on progressive income taxes. Other major features of typical tax systems included: a cascaded structure of indirect taxes (with no credit given for taxes on inputs); a schedular system for direct taxes (with different taxes depending on the type of income); and, a proliferation of exceptions and exemptions. The resulting systems were much too complex for the administrative capabilities of developing countries. They encouraged too many arbitrages which eroded the tax base. Small businesses could exploit the differential in tax treatment between dividend and wage income; intra-household transfers of income would take advantage of the progressivity of income taxes; firms would gear their financing strategy to the biases of the corporate tax system. A lack of constituency in favour of tax reforms and the existence of powerful vested interests in support of the status quo perpetuated the existing system until large fiscal deficits provided the required stimulus for tax reforms.

Drawing on the recent experience of a number of developing countries, Thirsk shows how tax reforms were typically designed to minimize the incentive for tax-avoiding resource shifts. They did so by applying the company tax to

all forms of business organization, by aligning personal and corporate tax rates, by broadening the personal and the corporate tax basis, and by mitigating the tax bias in favour of debt finance. Other major features of the reformed systems included the lowering of direct tax rates, the introduction of a value added tax and extensive inflation adjustment measures. Contrary to conventional wisdom, lack of indexation had indeed proved to be destabilising as inflation worsened the budget deficit which, in turn, fuelled inflation. Lack of indexation in the tax system also contributed to enhance its distortionary effects. Chhibber and Dailami document the size of the tax bias in favour of debt finance in most developing countries and show how, in the case of Korea, it was significantly affected by the level of inflation.

Substantial agreement on the thrust of reforms is apparent throughout the papers in this symposium. The need for lower tax rates and for a check on the proliferation of tax incentives is also forcefully argued by Tanzi. There are, however, also areas of disagreement in the design of tax reforms. For example, Tanzi argues in favour of the introduction of user charges for higher education and health so as to discourage overuse and inefficient capacity addition. On the other hand, Cornia and Stewart claim that user fees are invariably regressive, insofar as they discourage mainly the poor. Rich people instead are less affected to the extent that the price elasticity of demand declines with income.

A perhaps more fundamental issue is the basic inspiration behind tax reforms. All seem to privilege the need for tax simplifications and, to some extent, the efficiency motive. Are the two compatible? Optimal taxation theory concludes in favour of non-uniform tax rates. But, as Thirsk convincingly argues, it assumes impossible informational requirements and perfect tax administration. Also the equity motive may clash with the desire for simplicity. An equitable system may indeed require sophisticated distinctions. Again the issue is difficult to settle, insofar as complex tax systems tend to offer a wide set of opportunities for tax evasion that benefit rich people. Yet, a larger weight to the equity motive in the design of tax

reforms seems warranted. For instance, as shown by Cornia and Stewart, most adjustment programs increased indirect taxes, which are often regressive.

5. New Directions

Disagreements about the likely macroeconomic impact of deficit reductions, about the equity and efficiency effects of changes in the composition of government expenditures point to the need for more evidence. The pervasive tax reforms and drastic changes in government expenditures should provide valuable information for a new generation of studies. But there are also new promising areas for research. Below are two topics that would increase our knowledge in the design of fiscal adjustment programs.

a) The growth effects of fiscal policy

In several instances, contributors to this symposium pointed out linkages between public and private spending. Both private consumption and private investment will indeed depend on the level and the composition of public expenditures. The link may be direct, whenever public investment and public current spending are either substitute or complementary to private spending, or indirect, through interest rates and prices channels. The level and the structure of taxation was also found to exert a powerful influence on the private sector's economic choices. Since governments raise revenues through taxation to finance both current and capital expenditures, the issue of the size of government is an important one. In some broad sense, there is an "optimal" government size.

Such a question needs to be approached both at a theoretical and an empirical level. One promising avenue would seem to be to draw on the new growth theories that rely extensively on the notion of externalities in the determination of steady-state growth paths. In these models, the long-run growth rates of economies are no longer exogenously given and need not be the

same. More crucially economic policy, in particular fiscal policy, can affect not only the output level but also the per capita growth rate. In this framework, there is scope for rich interactions between the private and the public sector. For example, Barro (1990) builds a long-run growth model in which there are complementarities between public and private investment (the marginal productivity of private investment depends on the level of public investment). Barro then shows that the size of the government which maximizes the long-run growth rate occurs when the marginal social welfare cost of raising taxes to finance public investment expenditures is just equal to the marginal gain to the private sector through the externality in private investment.

The growth effects of taxation are analysed by King and Robson (1989). They show how stochastic variations in tax policies may lead to large dispersions in observed growth rates. In a related paper, Easterly (1990) analyses the growth impact of taxation in a context where only one type of capital good is taxed. There are two possible interpretations of this set-up. First capital in the informal sector may fully escape taxation. Second domestically produced capital may benefit from a discriminatory trade regime. In both cases taxation is shown to reduce the steady-state rate of growth. The result is not very surprising insofar as, in this model, the government performs no useful functions and the proceeds from taxes are rebated in a lump-sum fashion to the private sector. These models are therefore ill-suited to determine the "optimal" size of government. They can however cast some light on the growth-retarding effects of taxation.⁷ Easterly provides some empirical evidence that distortionary trade policies had a negative impact on growth in developing countries.

b) The political economy of fiscal policy

Another open issue is why governments behave the way they do. Gaining a better understanding of governments' behaviour would be helpful in the design of adjustment programs. For example, difficulty in controlling fiscal

imbalances have often been at the source of the exploding inflation and a motivation for fiscal reform. The papers in the symposium address fiscal reform from the standpoint of the theory of taxation taking into account countries administrative capabilities. However, differences in country experiences can also be usefully analysed from a positive standpoint by relying on the theory of public choice and on game theory.

As an example of how the political economy approach to fiscal policy can be useful in addressing issues raised in this symposium, consider the use of seignorage and tax reform implementation in a hypothetical economy, with a weak administrative system. As pointed out by Thirsk, and by the data in Table 2, this weakness is partly due to the stage of development of the country. But this weakness could also be due to the country's political system. Consider the following possibility. Those who oppose the government's current policies (like paying the the external debt) welcome the inefficiency of the tax system, because it constrains the government in power by facilitating tax evasion and imposing high tax collection costs. In this set-up, even the government in power may refrain from reforming the tax system for fear that the more efficient apparatus that would result from a successful tax reform would be used by the next government to carry out spending or redistributive measures that the current government opposes. Such a situation is more likely to arise in countries with unstable and polarized political systems. Political stability in the sense of a strong government with a high probability of staying in power would then be a prerequisite for engaging in tax reform. To give a concrete example, the major overhaul of the tax system in Morocco (described by Thirsk) was implementable precisely because the political system was stable. Also, more unstable and polarized political systems will rely on inefficient taxes such as seignorage and trade taxes.⁸

The political economy approach can also be used to provide explanations of the size of fiscal deficits, and of governments' patterns of borrowing. Alesina and Tabellini (1989) have developed a model in which a policymaker is aware that in the future he may be replaced by a policymaker with different

preferences about some aspects of fiscal policy (for instance each policymaker will attempt to redistribute income in favor of his constituency). The policymaker is also aware that he is in control of how he allocates his spending, but not necessarily of how the debt he contracted will be repaid in the future. Because of this asymmetry, the policymaker may not fully internalise the costs of running a deficit, and will consequently overborrow. As before the tendency to overborrow will be greater, the more likely that the government in power today will not be reelected tomorrow.

Endnotes

1. For a review of the literature on tax revenue, and issues of tax reform in developing countries see Ahmad and Stern (1989).
2. In principle, the fiscal deficit includes all central government's operations, but comparability across countries is flawed by the fact that the definition of what is included in the central government differs across countries. See Blejer and Chu (1989) for further discussion.
3. In section 4, we suggest that a political economy perspective is useful in understanding the insensitivity of fiscal expenditures and revenues.
4. For a critique, see Killick et al. (1984). For an insider evaluation of adjustment programs, see Thomas et al. (1990).
5. Quoted in Tanzi (1989).
6. More precisely, in the papers by Tanzi, Chhibber and Dailami, and Cornia and Stewart.
7. Little is known on the growth effects of fiscal policy. See Barro (1989) and Easterly (1990) for preliminary evidence.
8. Evidence in support of this hypothesis is found in Cukierman, Edwards and Tabellini (1990). After controlling for structural variables, they find that countries with a high expected probability of government change rely more heavily on seignorage.

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