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Fiscal Policy for Economic Development: An Overview

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Fiscal policy can foster growth and human development through a number of different channels. These channels include the macroeconomic (for example, through the influence of the budget deficit on growth) as well as the microeconomic (through its influence on the efficiency of resource use). But how precisely do these channels work in developing countries? Do the insights gleaned from the vast body of research on these topics in industrial countries carry over to developing countries?[1]

From a macroeconomic perspective, one of the central insights from past research on developing countries is that prudent fiscal policy—that is, low budget deficits and low levels of public debt—is a key ingredient for economic growth, which in turn is essential for reducing poverty and improving social outcomes.[2] Small budget deficits also reduce the risk of economic crises caused by concerns about the government's ability to service its debt. They prevent interest bills from rising to levels that squeeze critical social spending and ensure that the stock of debt remains at levels consistent with a country's capacity to service

The authors are grateful to Emanuele Baldacci, Robert Gillingham, Naoko Kojo, and Antonio Spilimbergo for helpful comments on previous drafts.

[1]The methodology of the World Bank Atlas defines developing countries as those with per capita gross national income below US$9,075 in 2002 prices. Within this broader group, low-income countries are those with per capita national income of US$735 or less (based on 2002 prices).

[2]See Chen and Ravallion (1997), Rodrik (2000), Dollar and Kraay (2001), and Easterly, Rodriguez, and Schmidt-Hebbel (1994).

this debt. Indeed, the macroeconomic stability associated with the absence of such crises yields numerous benefits, including higher rates of investment, growth, and educational attainment.[3]

Economists have traditionally posited that, in the short term, fiscal policy should be used to mitigate fluctuations in output and employment, and most of the available empirical evidence supports this view.[4] Thus, countercyclical fiscal policy can be used to stimulate aggregate demand and revive a stagnant economy. However, there is growing recognition that, in some circumstances, activist fiscal policy may not have its intended salutary effects on economic activity. These circumstances include cases where the level of public debt is high and unsustainable. Even for countries that expect to receive significantly more foreign assistance, expansionary budgets may not be a viable option because of adverse macroeconomic consequences associated with high aid flows and the lack of capacity to absorb them in an efficient manner.

A growing body of research—primarily on industrialized countries—has concluded that when the level of public debt is high and unsustainable, reducing budget deficits can accelerate growth. This occurs because reduced government borrowing to finance deficit spending pushes down interest rates generally, thereby catalyzing higher private investment. Lower interest rates also raise asset values, and this wealth effect encourages private consumption. Furthermore, shrinking deficits lead the private sector to reduce its estimates of current and future tax liabilities, providing a further boost to investment and consumption. Finally, higher investment can also ease supply constraints on growth. As a result, fiscal contractions can be expansionary. The question is whether the same type of phenomenon holds true for developing countries, and under what circumstances.

In addition to the short-run impact of fiscal policy on macroeconomic imbalances, tax, expenditure, and financing policies also have important effects on growth. From a microeconomic perspective, taxes distort private agents' decisions to save and invest, which in turn could alter the growth rate of the economy.[5] The empirical evidence on the impact of taxes on growth, however, is inconclusive. Easterly and Rebelo (1993) note that the effects of taxation are difficult to isolate

[3] Gavin and Hausmann (1998) and Flug, Spilimbergo, and Wachtenheim (1998).

[4] Most empirical research supports the idea that fiscal policy can have real effects in the short run. That is, there is little support in favor of the "Ricardian equivalence" argument, whereby any increase in government spending is offset by higher individual savings in anticipation of future tax increases (see Barro, 1989). This is because the underlying assumptions for Ricardian equivalence to hold ignore short time horizons, less than perfect foresight, and imperfect capital markets. For recent discussion on this subject in developing countries, see Khalid (1996) and Giorgioni and Holden (2003).

[5] Milesi-Ferretti and Roubini (1998).

empirically. The lack of clear evidence on how tax policy affects growth could partly be accounted for by the expenditure policies simultaneously being pursued.

On the expenditure side, several categories of expenditure and expenditure policies influence long-run growth. For example, the burgeoning work on endogenous growth theory suggests that fiscal policy can either promote or retard economic growth through its impact on decisions regarding investment in physical and human capital.[6] In particular, increased spending on education, health, infrastructure, and research and development can boost long-term growth.[7] Higher growth, in turn, generates greater fiscal resources to finance spending on human capital, further bolstering the dynamism of the economy.

Beyond its effects on growth, public expenditure can also have a direct impact on human development outcomes. The recent literature on fiscal policy and human development has focused on the Millennium Development Goals (MDGs).[8] These goals grew out of the agreements and resolutions of world conferences organized by the United Nations in the past decade. They have been commonly accepted as a framework for measuring development progress, and indicators of achievement of these goals are being monitored by the international community. The goals are directed at reducing poverty in all its forms. They include halving global poverty, achieving universal primary education, reversing the spread of HIV/AIDS, reducing child and maternal mortality, and ensuring environmental sustainability. The issue is whether government expenditure policy has a role in attaining the MDGs, and in particular in fostering improved education and health outcomes. In this respect, empirical evidence on the impact of spending on health and education on social outcomes provides clear evidence that it is not just the level of spending that matters, but also the efficiency of these outlays and how well they are targeted to the poor.

On the financing side, there is an extensive literature on the relationship between external debt and economic activity. In general, the literature indicates that foreign borrowing has a positive impact on investment and growth up to a certain threshold level, beyond which its impact is adverse. There has also been considerable discussion on how high interest bills on debt, including that held by local residents, have constrained productive spending by countries.

[6] Barro (1990, 1991); and Barro and Sala-i-Martin (1995).

[7] Lucas (1988); Bloom, Canning, and Sevilla (2001); Barro (1990); and Romer (1990).

[8] See Besley and Burgess (2003); Collier and Dollar (2001); and the MDG website, http://www.developmentgoals.org/.

However, the empirical evidence on this matter is mixed. Some have questioned whether public spending financed from foreign assistance raises growth in developing countries. Burnside and Dollar (2000) found that aid raises growth in a good policy environment. However, recent research contends that this finding is not robust (Easterly, 2003). This debate has assumed special importance in the context of the MDGs, since one of the objectives is to increase aid flows to 0.7 percent of GNP of industrialized countries. The question is not only how much aid should be delivered, but also how to improve the quality of aid.

The IMF is keenly interested in fiscal issues, given its mandate to promote economic stability and foster international cooperation. There has been considerable research on fiscal aspects of macroeconomic policy in developing countries. In 1989, for example, IMF staff compiled a volume on fiscal policy, stabilization, and growth in developing countries.[9] Since then, there has been growing interest in understanding the relationship between fiscal policy, growth, and poverty in these countries, particularly in low-income ones. This book brings together some of this research. Most of the chapters were circulated for discussion within the IMF as working papers, and several have been published in academic journals. Drawing on both theory and country experience, the chapters attempt to provide, where possible, insights into how fiscal policy can be used to spur equitable growth.

The volume is organized around five broad topics. The chapters in Part I assess how fiscal policy affects growth in the aggregate, including the short run. The papers assess whether reductions in the budget deficit are good for growth, and under what conditions; what determines the persistence of fiscal adjustment efforts; and the channels through which changes in the fiscal stance affect growth. The section then discusses the conditions under which borrowing and the resulting debt buildup is conducive to growth, and the conditions that influence debt sustainability in a country. Parts II through IV address specific aspects of fiscal policy. Part II comprises chapters on expenditure policy and the MDGs, focusing on health and education spending. Taxation, revenue composition, and the impact on growth and the poor are the focus of Part III. Part IV examines the role of international aid and the potential difficulties for fiscal management in the presence of large donor inflows. Finally, the chapters in Part V touch on selected topics, including the fiscal consequences of armed conflict and terrorism, and public expenditure management systems in Africa.

[9] Blejer and Chu (1989).

Macroeconomic Policy in Developing Countries

Fiscal Adjustment and Growth

Some critics have argued that the IMF recommends that countries undertake fiscal adjustment in cases where fiscal problems are not the cause of macroeconomic imbalances, and without taking into account the adverse consequences of fiscal retrenchment.[10] Implicit in these arguments is that an easing of fiscal policy might be a better alternative for countries facing deep losses of output during crises. At issue here is the effect of changes in the fiscal stance on growth. As noted earlier, for countries with relatively high public debt levels and borrowing costs, fiscal consolidation can actually boost growth by raising market confidence, improving market access for private as well as public borrowers, and reducing interest rates. For countries that do not have access to markets, fiscal consolidation can also spur growth, especially if consolidation takes place through structural reforms that increase labor market flexibility and factor productivity.

The empirical research, primarily on industrial countries, has sought to understand the conditions under which fiscal consolidation leads to stable or increased output. Giavazzi and Pagano (1990), for example, show that consolidations tend to be expansionary when debt is high or growing rapidly. In this context, they argue that private spending responds positively to a credible commitment to debt reduction and a lowering of the risk premium. Furthermore, Alesina and Perotti (1995) and Alesina and Ardagna (1998) find that in addition to the size and persistence of the fiscal impulse, budget composition matters in explaining different private sector responses to fiscal policy (and, hence, the effect on growth). Fiscal adjustments that rely primarily on cuts in transfers and the wage bill tend to last longer and can be expansionary, while those that rely primarily on tax increases and cuts in public investment tend to be contractionary and unsustainable.[11]

What has yet to be explored in the literature is how relevant these concerns are for developing countries, and low-income countries in particular. Are smaller budget deficits good for growth? Should developing countries refrain from public spending, especially those that are likely to receive massive increases in aid inflows? There is limited evidence in the literature on the short-term effects of countercyclical fiscal policy in the context of developing countries. However, there are

[10] Stiglitz (2003).

[11] The idea is that cuts in transfers in the form of health and pension expenditures require legislation that would lead to permanent changes in the composition of government expenditure. See von Hagen and Strauch (2001).

institutional features specific to developing countries that will affect the impact of fiscal policy on economic activity differently than in an industrialized country setting. On the one hand, the availability and cost of financing is often a major constraint in countries that do not have access to international capital markets. Therefore, an increase in the fiscal deficit beyond a level that can be financed in acceptable terms will have strong crowding-out and inflationary effects, while raising the stock of debt to unsustainable levels. On the other hand, the relatively high marginal propensity to consume would tend to increase the size of the fiscal multiplier.[12] These issues have taken on greater prominence in recent years, as some have argued that fiscal policy in IMF-supported programs is too tight, causing developing countries to forgo economic growth in the name of fiscal austerity. Three main empirical questions arise from this debate:

- What is the impact of the fiscal stance, expenditure composition, and budget financing on economic growth in developing countries?
- How do these and other factors affect the persistence of fiscal adjustments?
- Through which channels does fiscal consolidation affect growth?

Chapter 2 of this volume contributes to this literature by analyzing the first of these questions. Gupta, Clements, Baldacci, and Mulas-Granados find that, as in the industrialized world, fiscal adjustment can bolster growth in low-income countries suffering from macroeconomic imbalances. Moreover, they find that allocating a higher share of public spending for public investment spurs economic growth. Cutting selected current expenditures triggers higher growth rates than do adjustments based on revenue increases and cuts in more productive spending, a result that is consistent with the findings for industrial countries. They also find that fiscal consolidations that trim domestic financing of the deficit are the most pro-growth. In contrast, in countries that have achieved macroeconomic stability in terms of low budget deficits and low inflation rates, an expansion of selected current expenditures is compatible with higher growth.

In some countries, fiscal adjustments take place, but do not last long enough to ensure a positive effect on growth. There is a consensus among researchers that fiscal consolidation needs to persist in order to maximize their effect on growth.[13] Therefore, a second relevant ques-

[12] For a recent survey of theoretical and empirical studies in industrialized and developing countries, see Hemming, Kell, and Mahfouz (2002).

[13] Alesina and Ardagna (1998); von Hagen, Hughes Hallett, and Strauch (2002); and Adam and Bevan (2003).

tion is what determines how long a fiscal adjustment program lasts. In Chapter 3, Baldacci, Clements, Gupta, and Mulas-Granados assess the factors determining the end of a fiscal consolidation episode and analyze whether improvements in the composition of public expenditure have positive repercussions for the duration of fiscal adjustment in low-income countries. They find that protecting capital expenditure during fiscal adjustment leads to a longer fiscal consolidation episode, as does an increase in the share of current spending on nonwage goods and services. Further, when fiscal consolidation is supported by a strengthening of the revenue effort, adjustment is likely to continue, while expenditure reductions play a minor role. This contrasts with findings in the literature on industrial countries, which have emphasized that expenditure reductions are the key ingredient for achieving persistent fiscal adjustment.

Finally, a third, related issue relates to the channels through which fiscal consolidation affects growth in developing countries, and whether they differ from those in industrialized countries. The principal channel for the increased growth in industrial countries is the higher private investment that follows reduced real interest rates and enhanced price and external stability.[14] In Chapter 4, Baldacci, Hillman, and Kojo review these channels for low-income countries and find that fiscal adjustment spurs growth principally through its effect on factor productivity. The investment channel is not as critical, owing to the low productivity of public spending in countries plagued by weak governance. Moreover, they find that changes in spending composition that increase the share of public-sector wages and salaries and reduce capital spending, tend to retard growth because they are associated with rent-seeking behavior. Finally, as in Gupta and others (Chapter 2), these authors find that fiscal contractions that reduce borrowing from domestic sources are the most conducive for growth.

Debt and Growth

There is widespread concern in the international community that the debt burden in developing countries has retarded growth, and that debt-service payments effectively crowd out public spending on health, education, and other poverty-reducing programs. In response to these concerns, the Heavily Indebted Poor Country (HIPC) Initiative was launched to provide debt relief to a group of countries confronted by high levels of debt. As a result, for the 27 countries for whom debt relief

[14] Giavazzi and Pagano (1990); and Bertola and Drazen (1993).

was approved by end-2003, debt service falling due between 1998 and 2004 will drop by more than half in relation to both exports and government revenue. In the context of this Initiative, three basic questions emerge. When does the debt burden begin to have a negative impact on growth? Has debt service squeezed spending on public investment? Will the HIPC Initiative help in this regard? In a study presented in Chapter 5 of this volume, Clements, Bhattacharya, and Nguyen analyze the relationship between debt, growth, and public investment for a sample of low-income countries. They find that the marginal impact of debt on growth becomes negative at about 20–25 percent of GDP when debt is measured in terms of net present value. Taking into account the average debt relief for countries under the Initiative, their results imply that per capita growth could be boosted by 0.8–1.1 percent a year. They further find that on average, every 1 percentage point increase in gross debt service reduces public investment by about 0.2 percentage point. Thus, reduced debt service—especially if a large share of the resulting savings is allocated for higher public investment—can help further boost growth.

Given that excessive debt burdens have an adverse impact on a country's growth prospects, it is important for policymakers to assess the sustainability of the fiscal position continuously and systematically. Such assessments are thus essential for evaluating whether fiscal adjustment is needed. In Chapter 6, Baldacci and Fletcher propose a framework for assessing debt sustainability in low-income countries that can be easily adapted to the specific circumstances of a country and can be used to assess the extent to which existing policies and financing are consistent with the country's broader development agenda. For example, countries may need higher public spending to achieve the MDGs. In these cases, debt sustainability analysis can be useful in highlighting the trade-offs while maintaining a sustainable debt position. In cases where investment in human and physical capital cannot be funded by cuts in less productive spending, analysts may need to carefully weigh the possible trade-offs between the growth-enhancing effects of such investment and the costs of the borrowing needed to finance them. An unsustainable debt position can also be addressed through higher foreign grants and/or through higher domestic revenue mobilization.

Fiscal Rules and Budgetary Convergence: The Case of WAEMU

Chapters 2–6 present evidence on how fiscal policy can promote growth in the short and long term. Toward this end, some countries have established fiscal rules to help promote fiscal consolidation and

achieve fiscal sustainability. In Chapter 7, Doré and Masson study the issue of fiscal stability in the case of the West African Economic and Monetary Union (WAEMU). They find that cyclical variations and terms-of-trade fluctuations affected the WAEMU's experience with the convergence criteria (fiscal rules) applied since 1999. The setting of budgetary rules was predicated on the belief that fiscal consolidation would lead to sustainable growth by freeing up resources for the private sector. Despite considerable progress, the WAEMU's experience has produced mixed results since the 1994 devaluation. After an initial period of robust growth and fiscal consolidation, a marked deterioration of the fiscal balance was observed in most countries after 1997. Unfavorable developments in terms of trade undoubtedly had a negative impact on growth and budget deficits, but in several countries, a weakening of economic policies was the main cause of the fiscal slippages, which hindered the achievement of strong, sustained growth within the Union. The analysis also suggests that for governments to meet the fiscal convergence standards, they will have to pay more attention to reducing the share of public wages and monitoring other current operating expenditures. It further suggests that in light of the limited scope for reducing the aggregate level of expenditure while simultaneously attempting to combat poverty, it would be helpful to focus on the quality of fiscal adjustments and on strengthening the tax effort, in line with the results in Chapters 2 and 3. This would mean streamlining expenditures (for instance, better deployment of civil service staff) and engaging in sustained revenue-raising efforts.

Public Spending and the Millennium Development Goals

An improvement in the composition of expenditures is critical for low-income countries receiving debt relief. A larger number of countries are also articulating their plans for poverty reduction in poverty reduction strategy papers (PRSPs).[15] The additional resources freed by debt relief and those provided by donors are meant to be spent on poverty-reducing programs so that, over time, there is an improved performance on social indicators. However, a critical question is whether higher public spending in the past has actually led to improved outcomes. There is at least some evidence that budgeted resources are not

[15] IMF and World Bank–supported programs in low-income countries are framed around PRSPs, which are prepared by governments with the active participation of civil society and other development partners. PRSPs are then considered by the Executive Boards of the IMF and World Bank as the basis for concessional lending from each institution.

always used for their intended purposes.[16] Moreover, the empirical evidence on the relationship between actual levels of public spending on these activities and outcomes (e.g., educational attainment and health status) is mixed.[17] In some cases, the weak relationship between spending and outcomes owes to the fact that public spending crowds out private outlays on education and health care; in other cases, public resources may be used inefficiently and inequitably, and thus have little effect on the well-being of the poor.

Public Spending on Education and Health

This section analyzes three related questions: (1) What is the impact of public spending on health and education on outcomes? (2) If spending is reallocated within sectors, can outcomes be improved? (3) Do social indicators for the poor respond differently to public spending than those for the nonpoor?

In Chapter 8, Gupta, Verhoeven, and Tiongson assess whether increased public spending on education and health influences social indicators and whether improvements in the intrasectoral allocation can boost social outcomes. The results indicate that increases in overall education spending, as well as in spending on primary and secondary education as a share of total education spending, have a positive impact on educational attainment. Similarly, increased health care spending reduces child and infant mortality rates. For example, an increase of 1 percentage point of GDP in education spending increases gross secondary enrollment by more than 3 percentage points. A 5 percentage point increase in the share of outlays for primary and secondary education in total education spending increases gross secondary enrollment by over 1 percentage point. A 1 percentage point increase in health spending in relation to GDP decreases infant and child mortality rates by about 3 deaths of every 1,000 live births. These results suggest that policymakers need to pay attention not only to the level of social spending, but also to its allocations within sectors.[18]

Existing studies have typically relied on aggregate social indicators to study the impact of public spending. This is because data on the distribution of indicators by income classes are rarely available. As a result, studies based on aggregate indicators do not necessarily reveal the full

[16] Reinikka-Soininen and Svensson (2001).

[17] Psacharopoulos (1994); Glewwe (2002); Landau (1986); Filmer, Hammer, and Pritchett (1998); and Bidani and Ravallion (1997).

[18] Baldacci, Guin Siu, and de Mello (2003) found larger elasticities of spending on education using a latent variable approach.

impact of spending on the poor. In Chapter 9, Gupta, Verhoeven, and Tiongson assess the relationship between public spending on health care and the health status of the poor. They not only find that the poor have significantly worse health than the nonpoor, but also show that the poor are more strongly affected by public spending on health care. For example, a 1 percent increase in public spending on health reduces child mortality by twice as many deaths among the poor. Infant mortality rates follow a similar pattern. In addition, there is some evidence that returns to public spending on health are higher among the poor, regardless of the benefit incidence. The estimates of the elasticity of health status of the poor to health spending suggest that projected increases in health spending due to international initiatives such as debt relief may have led, on average, to a reduction in child mortality rates by 5 deaths out of 1,000 live births among the poor between 1999 and 2000/01. A similar reduction could be expected for infant mortality rates. To further strengthen the nexus between spending and outcomes for the poor, governments should aim to improve the incidence and targeting of public spending.

User Payments for Education

Ideally, all children should have access to free, publicly financed, quality schools. However, in some cases, there may be inadequate government resources to provide free education, or, even when these resources are available, the funds are not used for their intended purposes. In other cases, children may have access to education, but cultural factors or user charges prevent them from going to school. It has been proposed that user payments for basic education should not be permitted or, where present, should be abolished. In Chapter 10, Hillman and Jenkner assess the circumstances under which user payments have been introduced. They note that in cases where there are voluntary user payments, parents have taken responsibility for the education of their children in situations where they would otherwise not have access to schooling. In some cases, this reflects the lack of alternative financing or more general problems in public expenditure management. Compulsory user payments can also reflect administrative and governance impediments to replacing regressive taxation with broadly based taxation or insufficient donor funding as a means of financing schools. Therefore, the authors conclude that proposals to disallow or abolish user prices for basic education in poor countries should be made with caution, and with detailed reference to the case-by-case circumstances that explain why these user payments exist in a given country.

Efficiency of Government Spending

In discussions on making progress in achieving the MDGs, the focus has been on increasing public spending on sectors impacting on different dimensions of poverty. However, attention also needs to be paid to the need to improve the efficiency of spending of *existing* resources. In Chapter 11, Gupta and Verhoeven assess the efficiency of government spending on education and health in 37 countries in Africa, both in relation to each other and in comparison with countries in Asia and the Western Hemisphere. The results reveal that there is wide variation in the way government spending in the African countries affects measurable output indicators. On average, governments in Africa are less efficient in the provision of health and education services than in Asia and the Western Hemisphere, with those in Asia appearing most efficient. The results suggest that the inefficiencies observed in Africa are unrelated to the level of private spending, but may be due to relatively high government wages (in the case of education spending) and the intrasectoral allocation within the social sectors. The analysis suggests that improvements in educational attainment and health output indicators in Africa and the Western Hemisphere are feasible by correcting inefficiencies in government spending on education and health. Relatively low allocations for primary education, relatively high allocations for curative health care, and poorly targeted spending that primarily benefits upper-income groups are all symptomatic of expenditure inefficiencies. This suggests that some progress on the MDGs can be made by spending existing resources more wisely.

Tax Policy and Development

We turn now to the links between tax policy and development.[19] Developing countries face formidable challenges in implementing efficient tax systems owing to (1) large informal sectors; (2) lack of reliable data that allow for effective monitoring and analysis; (3) ineffective tax administrations; and (4) powerful high-income groups that preclude the introduction of more equitable taxes.

Given the complexity of the development process, a key question is how to improve the tax structure within existing constraints. In this context, Keen and Simone discuss the experience with tax policy in developing countries during the 1990s. Their findings show that revenue has at best been stagnant in the poorest countries and regions of the devel-

[19] For a survey of tax issues facing developing countries, see Tanzi and Zee (2000). For a historical survey of tax advice given to developing countries, see Goode (1993).

oping world; taking seignorage into account, it has generally fallen. Although sales tax revenues have increased markedly owing to the widespread introduction of the VAT (albeit less in the poorest countries and regions), it is not easy to show clear efficiency gains from the VAT. The primary task going forward will be to ensure proper functioning of the refund and credit mechanisms—a key part of the wider reform of conducting tax business. Second, trade tax revenues have fallen significantly, though least in the poorest countries. Developing countries, especially the poorest, have had difficulties in dealing with the revenue consequences of trade liberalization, which points to the need for greater attention to be paid to the sequencing of trade reform and the strengthening of the domestic tax system. Finally, Keen and Simone document the decline in corporate tax revenues in developing countries. While corporate tax reform among developed countries has been rate reducing and base broadening, in the developing world it has been rate reducing but also base reducing (or, at best, base neutral) at least partly owing to international tax competition. This is problematic, since developing countries have traditionally relied more heavily on corporate tax revenues, reflecting the relative administrative ease of collection, which is typically highly concentrated in a relatively small number of large firms. Like the decline of trade tax revenues, the erosion of the corporate tax may thus jeopardize a convenient tax handle—and so could raise the same difficult issue of developing alternative revenue sources.

Aside from the impact of tax policy on revenue collection, tax policy can also have important implications for income distribution. There have been increasing calls for the evaluation of distributional implications of reform programs in low-income countries. One of the key features of the IMF's Poverty Reduction and Growth Facility (PRGF), designed for low-income countries, is to undertake such an analysis of key policy reforms. In Chapter 13, Muñoz and Cho assess the distributive impact of the introduction of the VAT in Ethiopia, and compare it to the sales tax that it replaced. The results show that the VAT is progressive. However, it is not as progressive as the sales tax, and as such its introduction had an adverse impact on the poorest 40 percent of the population (reducing their consumption by about 1 percent). Moreover, Muñoz and Cho's estimates indicate that if the additional revenues from the VAT were allocated for higher spending on primary education and health, the poorest 40 percent of the population would be net beneficiaries.

Not only will the structure of taxation in developing countries need to improve to help meet the MDGs, but also the level of revenues reaped by the tax system. In this regard, a critical issue is how foreign assistance affects the revenue effort of aid-receiving countries. The debate on the

effectiveness of foreign aid has revolved around the relative efficiency of loans versus grants. Since the early 1960s, an oft-repeated view has been that loans are used more efficiently than grants because they are expected to be repaid. This issue has reemerged with recent calls for a shift from loans to grants. Some observers consider that excessive lending has led to massive debt accumulation in many developing countries, while failing to help countries reach their intended human development objectives and worsening the debt sustainability outlook. These critics have therefore argued that grant financing is a better option. In Chapter 14, Gupta, Clements, Pivorarsky, and Tiongson empirically test whether the revenue effort in aid-receiving countries depends on the form of delivery of foreign aid—grants or loans. Their results indicate that concessional loans are generally associated with higher domestic revenue mobilization, while grants have the opposite effect. In countries plagued by high levels of corruption, the empirical results suggest that any increase in aid would be fully offset by a reduced revenue effort. Thus, grants to these countries cannot be expected to increase the aggregate amount of resources available to finance government expenditure. Loans, on the other hand, do not suffer from this drawback. A shift from loans to grants and the resulting fall in revenue-to-GDP ratios in recipient countries would, however, shift the burden of taxation to donor countries. The results also suggest that the aggregate amount of resources needed for achieving the MDGs would be larger than hitherto estimated.

International Aid and Fiscal Policy

It has been estimated that $40–$60 billion of additional resources annually would be required to achieve the MDGs.[20] This has resulted in repeated calls at the international forums to raise official development assistance (ODA) from its current level of 0.24 percent of GNP of industrial countries. During the 2002 Monterrey meeting, new commitments were made to increase ODA by $12 billion a year by 2006.

Macroeconomic Challenges in the Presence of Aid

Heller and Gupta (Chapter 15) consider the macroeconomic and microeconomic challenges that developing countries would face if industrial countries were to meet the international target for increased development assistance to 0.7 percent of GNP, about $175 billion, slightly more than three times the current level. First, they consider

[20] See Devarajan, Miller, and Swanson (2002).

what the appropriate criteria should be for allocating the aid across countries. If one were to distribute the full 0.7 percent of GNP in aid only to the world's *least* developed countries, then the scale of transfers would be massive relative to these economies' size. In particular, the average ratio of ODA to GDP in recipient countries would be 32 percent, almost two and a half times what it is now, and the resources available for government programs would almost triple. In fact, the ratio of ODA to GDP would amount to 90 percent in Ethiopia, 48 percent in Vietnam, 43 percent in Nicaragua, 57 percent in Guyana, and 74 percent in the Kyrgyz Republic. Moreover, applying such a distributional criterion would result in enormous differences in per capita transfers to the "absolute poor" of the world. On the other hand, if the increased ODA resources were distributed proportionally to the share of the world's absolute poor in a country, the bulk of aid would then go not to the poorest countries in the world, but to the larger countries such as China and India. Heller and Gupta ask whether developing countries would have the capacity to absorb these funds. They discuss the macroeconomic and microeconomic challenges countries would face, including (1) the ability of governments to keep their exchange rate competitive in the face of large foreign resource inflows; (2) the difficulties in ensuring sound fiscal management, particularly in the context of weak local government reporting systems; and (3) the potential aid dependence that could result from higher donor flows. They conclude that any significant expansion of ODA must be accompanied by a concerted effort by all partners in the development community to anticipate the challenges associated with utilizing external resources effectively.

In Chapter 16, Lane and Bulíř look at the related issue of the volatility and unpredictability of aid inflows and the implications of this volatility on fiscal policy management in aid-receiving countries. Although a number of recent papers have documented a pattern of aid volatility and aid procyclicality with respect to output and fiscal revenues,[21] the impact on output and growth has received relatively less attention. Lane and Bulíř find that aid is significantly more volatile than domestic fiscal revenue, and is procyclical vis-à-vis domestic fiscal revenue. Further, they find that rather than smoothing out cyclical shocks, aid tends to exacerbate them. As a result, recipient countries can either devise a flexible fiscal framework in which tax and spending plans can be adjusted in response to aid receipts, or they can try to smooth out fluctuations in aid disbursements by running down international reserves. Budgets can be designed to accommodate aid disbursements in excess of

[21] Gemmell and McGillivray (1998), and Pallage and Robe (2001).

a conservative fiscal baseline, provided that established budgetary procedures are made more flexible. However, the flexibility of fiscal frameworks to adjust to variations in aid receipts is limited. On the revenue side, variations in tax rates to compensate for temporary fiscal shortfalls shift uncertainty onto taxpayers and, through their effects on expectations, may result in changes in behavior that vitiate these intended effects. On the expenditure side, it is generally disruptive to turn expenditures on and off at short notice, unless these expenditures are not serving an important purpose in the first place. Moreover, expenditures that are turned off for short-term reasons are often difficult to turn on again. For this reason, industrial countries have relied increasingly on "built-in fiscal flexibility" stemming from the income sensitivity of tax and spending items, rather than hoping to fine-tune activist policies.

Food Aid

Lane and Bulíř's results are important, as the procyclicality of aid implies that aid flows cannot stabilize fluctuations in consumption. However, aid can take many different forms, including ODA, technical assistance, and food aid. In Chapter 17, Gupta, Clements, and Tiongson focus on food aid. They investigate whether it helps to stabilize food consumption in recipient countries, and whether food aid has been targeted to those countries most in need. They conclude that food aid is acyclical—that is, neither pro- nor countercyclical. This has two major implications for macroeconomic and fiscal management. First, to the extent that food aid is not disbursed in a countercyclical manner and recipient governments rely on counterpart funds generated from the sale of commodities provided through aid as a revenue source, the instability of budgetary revenues associated with declines in food production, and therefore in output, is not alleviated. Second, shortfalls in food supply increase demands on the government budget for programs to shield the consumption of the population. In the absence of counterpart funds from food aid, governments will have to rely on domestic resources for funding such programs. Therefore, falling revenues and rising demand for budgetary programs are likely to complicate macroeconomic management for countries receiving food aid. In these circumstances, food aid fails to act as an "automatic stabilizer."

Special Topics

The volume ends with a couple of special topics that are critical for fiscal policy and development. First, the fiscal consequences of armed

conflict and terrorism in low- and middle-income countries are analyzed. Then, a comparison of expenditure management systems in Africa is presented.

Armed Conflict, Terrorism, and Development

Post-conflict countries such as Iraq, Afghanistan, and the Democratic Republic of Congo face special challenges in formulating and implementing sound macroeconomic and fiscal policy. An institutional framework, underpinned by a simple but realistic policy stance, must be quickly put in place to reestablish macroeconomic stability and lay the ground for a resumption of growth. In the fiscal area, conflict or post-conflict countries typically confront a collapsed revenue base and extraordinary expenditure needs. Although some studies have assessed the economic consequences of armed conflict and terrorism, few have focused on their fiscal implications. Several studies have analyzed the economic costs of armed conflicts,[22] while others have found an inverse relationship between different measures of political instability and violence and growth and investment.[23] For example, Arunatilake, Jayasuriya, and Kelegama (2001) estimate that the conflict between 1983 and 1996 cost Sri Lanka about twice that country's 1996 GDP. Prolonged terrorist activities, like armed conflict, have also been found to reduce growth, both directly and indirectly.[24] For example, Walkenhorst and Dihel (2002) estimate the global welfare losses due to the tighter security precautions put in place following the attacks of September 11, 2001, at about $75 billion. In Chapter 18, Gupta, Clements, Bhattacharya, and Chakravarti find that there are sizable economic gains in terms of economic growth, macroeconomic stability, and the generation of tax revenues to support poverty-reducing spending for countries that end conflicts and tackle terrorism. Moreover, the results suggest that conflict- and terrorism-affected countries are likely to experience a pickup in government tax revenues and a reduction in military spending (albeit with a lag) following the cessation of violence, and that this would help in restoring macroeconomic stability. These results underscore the potential for the "peace dividend" to contribute to economic development.

[22] See Richardson and Samarasinghe (1991); and Arunatilake, Jayasuriya, and Kelegama (2001).

[23] See Barro (1991); Alesina and Perotti (1993, 1996); Alesina and others (1996); and Rodrik (1999).

[24] Abadie and Gardeazabal (2001), Drakos and Kutan (2001); Enders and Sandler (1991); Enders, Sandler, and Parise (1992); and Nitsch and Schumacher (2002).

Expenditure Management in Africa

Although previous chapters have focused on the role of fiscal policy in attaining the MDGs, it is clear that fiscal policy is ineffective if it is not accompanied by strong institutions. In particular, expenditure management systems are critical to ensuring that additional aid flows are spent efficiently on programs to reduce poverty and improve social indicators. In Chapter 19, Lienert analyzes the differences between the public expenditure management systems of anglophone and francophone Africa. The paper finds that although the francophone countries' budget execution and government accounting systems have a number of potential advantages, these have not produced better results. On the contrary, the desirable features of the francophone system have not been accompanied by better aggregate expenditure control. Since there are big variations within the francophone or anglophone groupings, the disappointing experience is due not to the public expenditure management systems themselves, but to the way they operate. Thus, even if budget legislation and implementation instructions are clarified, in the absence of changes in the behavior of all players in the budget process—in the executive, legislative, and judicial branches of government—it is unlikely that significant improvements will occur. In this regard, it will be critical to enhance budget discipline and improve the accountability of all those responsible for budget preparation, execution, and reporting. To bring about lasting improvements in public expenditure management, it will be necessary to enforce existing rules with rigor, and apply sanctions where necessary. This will require strong political will in both anglophone and francophone Africa. Although this is largely a domestic issue, the international community can contribute to durable solutions by understanding more fully the actual operation of public expenditure management systems, and by making foreign assistance conditional on efforts to improve the accountability of the public sector.

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