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**HANDBOOK ON PUBLIC SECTOR  
PERFORMANCE REVIEWS**

**(IN SIX VOLUMES)**

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**VOLUME 1:**

**ENSURING ACCOUNTABILITY**

**WHEN THERE IS  
NO BOTTOM LINE**

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*Edited by*

*Anwar Shah*

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# ENSURING ACCOUNTABILITY WHEN THERE IS NO BOTTOM LINE OVERVIEW

Anwar Shah

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This is the first of a series of modules for the Handbook on Public Sector Performance Evaluation. This module is concerned with incentives that ensure accountability of the public sector. The module provides tools to address issues concerning fiscal prudence, fiscal stress, citizen accountability and public integrity.

## **(i) Fiscal Prudence**

*Fiscal Prudence Test:* Are the institutional arrangements appropriate to ensure that the government is constrained in raising taxes, expenditures, deficits, debts, and other liabilities within affordable and sustainable limits?

This question is the focus in several chapters.

*Jurgen Von Hagen* in chapter 1 is concerned with the political economy of the budget processes and discusses the implications of incomplete contracts of voters with politicians. In view of these incomplete contracts, politicians can use targeted public policies to ensure their confirmation in office. As there would be a disconnect between those who bear the burden of financing and those who benefit from such policies, such an environment generate potential for excessive levels of spending, taxation and borrowing as commonly observed in developing countries. Societies can react to these problems by creating institutions that mitigate their adverse effects. There are three basic institutional approaches to doing this.

The first is to impose ex-ante controls on the scope of the choices elected politicians can make regarding public finances.

Examples are balanced budget constraints forcing policy makers to limit the amount of debt they can raise or referendum requirements for raising tax rates. Ex ante controls such as balanced budget amendments or limits on borrowing are attractive for their simplicity, but are generally regarded as ineffective or possibly counter-productive to the ability of voters to monitor because such quantitative limits often have substitution effects (spending or borrowing being shifted to levels of government not covered by the rule.) In addition, outside authorities to monitor adherence to rules (such as the IMF or EU) are not seen as effective either.

The second is to strengthen accountability and competition among elected politicians, increasing their incentives to deliver the policies voters prefer to ensure tenure in office. This is the main function of electoral systems. Under the two commonly practiced forms of voting there are tradeoffs between accountability and competition. Under the plurality rule, accountability to citizens is enhanced but political competition is weakened as the rule acts as a barrier to entry for small parties. Proportionality rule has the opposite characteristics as it weakens accountability but promotes more intense competition.

The third is to structure the decision making processes over public finances among the policy makers in ways that force them to recognize more fully the marginal social benefits and costs of their policies. This is the principal task of the budget process. A centrally coordinated budget process may help to reduce the common pool problem through coordinating the spending decisions of individual politicians by forcing them to take a comprehensive view of the budget. However, competing claims must be resolved within the budget process, and this may be undermined by off-budget funds, spreading of “non-decisions” (such as indexation), mandatory spending laws, and contingent liabilities (such as promised bailouts).

The paper provides perspectives on institutional reform to strengthen the budgetary institutions as a safeguard against perverse incentives faced by politicians and bureaucrats. In this context, it discusses two alternate approaches to the centralization of the budget process: delegation and contracts. With delegation, the budget process lends special authority to the finance minister whose function it is to set the broad parameters of the budget and to ensure conformity of these

constraints by all participants. Under this approach, the finance ministry coordinates the departmental submissions. Any unresolved issues are referred to the Prime Minister for final decision. The finance ministry also assumes a central role in budget implementation. This approach lends large agenda-setting powers to the executive over the parliament. On the other hand, the contract approach emphasizes negotiation of binding agreements among all participants. It starts with negotiations among the cabinet members, fixing spending limits for each department. At the legislative stage, the contract approach places less weight on the executive's role as an agenda setter and more weight on the role of the legislature monitoring the implementation of the fiscal targets. The key to the institutional choice between the two approaches (delegation vs. contracts) lies in the type of constitutional form of government. Delegation is the preferred approach under single party parliamentary governments, while the contract approach is more appropriate for multi-party coalition governments. This is because under a single party government, the finance minister represents the views of the ruling party and under a coalition government a budgetary compromise must be struck among coalition partners. Under the presidential form of government, delegation will be considered appropriate when the president's party controls the legislature. A contract approach would be more appropriate when the president faces an opposition controlled legislature or when the two institutions are on an equal footing.

In chapter 2, *Matthew Andrews* is concerned with introducing incentives for fiscal prudence in developing countries through the budget process. He reviews South African experience with such reforms and draws some general lessons for other developing countries from this experience.

Andrews observes that, in the last decade, some governments have shown interest in reforms aimed at establishing a results-oriented (or performance-based) budgeting approach. The emphasis on results or performance in the budget process reflects a belief that public sector accountability should focus on what government does with the money it spends, rather than just the process of controlling such expenditures. In the parlance of new institutionalism, these reforms introduce rules and norms that make it culturally appropriate for, and/or induce (through positive and negative incentives), public

representatives and managers to concentrate on outcomes and outputs rather than inputs and procedures. Andrews asks how well reforms have worked in introducing a results orientation into budgeting processes (with representatives and managers being accountable for results) and where reformers should be concentrating to improve such effects.

Andrews examines this question with regard to recent experience with budget reform around the globe, in particular taking a critical look at reform adoption in a setting considered 'better practice' in the developing world, the South African national government. The Department of Health's budget is used as a representative example of the general path of reform progression in this setting. In looking at the budget's structure, it is apparent that the government has gradually moved from a purely line-itemized budget to a medium-term program budget and finally to a performance-based budget—a progression which mirrors developments in other governments as well (including developed and developing countries, sub-national and national governments).

On the basis of the South African analysis (and comparisons with experience in other settings) Andrews suggests that there are three reasons why reforms still have a way to go in establishing performance-based accountability systems in governments. First, even though performance targets are now being developed, they are generally kept separate from the actual budget (in South Africa as well as countries like Malaysia and Singapore and most states in the U.S.A.), which minimizes their legitimacy and entrenches a 'specialization' and 'separation' culture common in governments (in which planners, development experts and performance-minded evaluators do certain tasks and accountants and budgeters do other tasks, never to communicate over their boundaries). Second, performance information in the South African case suffers weaknesses commonly alluded to in literature related to other settings—outputs are confused with inputs and outcomes remain unconsidered; targets appear to have been technocratically identified and thus lack 'real-world' value; targets are poorly detailed, making actual measurement unlikely; it is unclear exactly how the targets will be reached (with no connection between outputs and activities in some cases and arguments as to why 'poor' service could lead to target achievement in others). This information fails to create a

results-oriented bottom-line, leaving political representatives and managers no reason or incentive to meet such.

The third, and possibly most important problem faced by reformers is the lack of a relational construct in the budget itself. Even where effective performance-based targets are provided in budgets, the budgets in South Africa and many other nations moving towards this kind of system commonly fail to specify who should be accountable for these results (and who should hold them accountable, and how). Very little thought appears to have been given to the process of institutionalizing political or managerial accountability for the targets identified in budgets, hampering the move towards a norm-based culture of results achievement or of incentives facilitating a results focus. Building on the progress made in countries like South Africa, and responding to these three problems. Andrews provides some pointers for reform progress in the future. The discussion centers on a proposed budget structure that links fiscal allocations to clearly-defined and measurable performance targets at the project level and identifies those accountable for outputs (managers) and outcomes (political representatives)—all in one document. The proposed approach is seen as a further progression beyond the current reform position, that should effectively entrench a results-oriented accountability in governments (with a series of bottom-lines that have meaning, can be evaluated and enforced).

*Mahesh Purohit* (chapter 3) reflects upon fiscal prudence from a revenue performance perspective. For this purpose, he considers the revenue performance of a government as satisfactory if the yields of available revenue sources are increasing revenue over time, are income elastic, and enable the government to raise the level of spending to provide adequate levels of public services. These yield are affected by composition of revenue bases, tax rates and tax effort. The composition of revenue bases vary among developing and industrial country groupings—developing countries place a greater reliance on taxes on commodities and services while in developed countries there is a greater effort on direct taxes on corporations and incomes.

The author presents a guide to developing simpler measures of revenue performance. These in ascending rank order of greater complexity include: the growth rate of revenue,



buoyancy or income elasticity of revenue, relative revenue effort, the performance index, and the principal components method.

The *growth rate of revenue* is simply an absolute measure of the compound growth rate of revenues, and does not take into account the causes of revenue growth (or decline). The *buoyancy of revenue* provides a simpler measure of relative growth. It shows the percentage change in revenue with respect to one percent change in the revenue base. The measure of *relative revenue effort* tries to judge a government's revenue performance against their estimated revenue capacity. A variety of variables are used to reflect upon the revenue capacity. Frequently used variables include changes in personal and corporate incomes, composition of taxes, type of public services, public investments, GDP, population, urbanization, openness of the economy, size of manufacturing and commercial sectors in GDP. Revenue performance variables include tax revenue, changes in tax revenues, effective tax rates on income from wages, capital and real estate. The *performance index* is an average of several indicators of revenue performance aggregated by using subjective weights. The *principal component method* uses statistical analysis to identify sets of variables having the largest impact on revenue performance.

Revenues and expenditures are inextricably linked but traditionally most formal economic analysis of either tax or expenditure changes has been conducted under the assumption that there is no connection between what happens on one side of the budget and what happens on the other side. *Richard Bird* (chapter 4) explores the issues that arise when both sides of the budget are analyzed simultaneously. He argues that financing side issues are too critical to be ignored and an explicit consideration of these will improve analysis and provide incentives for fiscal prudence. The key to good results in public expenditures lies not in any particular budgetary or financing procedure but rather in implementing a public finance system that, to the extent possible links specific expenditure and revenue decisions as transparently as possible. The combined effect of tax and expenditure changes is, however, very difficult to measure and therefore simplifying assumptions have been made that separate the two sides.

The author presents a survey of the historical or orthodox approaches to evaluating public expenditures. A significant portion of this literature was dedicated to estimating a "shadow

price” for public finance or the “marginal cost of public funds (MCF). Most of these estimates focused on the excess burden imposed by taxation. The paper then notes some of the questions that have been raised about both the conceptual and empirical application of this approach. Of these, Bird attempts to answer three questions: i) Should the shadow price of public finance be explicitly taken into account in expenditure evaluation? ii) If so, how should the shadow price be estimated? and iii) How much attention needs to be paid to the institutional linkages between expenditures and revenues?

The answers to the first two questions do not lead to simple rules. For example, when the financing of a project can be firmly linked to a properly designed benefit charge (user charge, earmarked benefit levy, or loan finance) or to some other form of “burdenless” or budget neutral fiscal change (such as a land tax, Pigouvian tax, or reduction of a distortionary tax), the application of a shadow price of fiscal resources (MCF—Marginal Cost of Funds) seems inappropriate because there is no distortion that needs to be corrected for in these cases. But even when the source of budgetary finance is a distorting tax system, the level of the correction will be sensitive to both the nature of that system, the nature of the anticipated tax changes, and the nature of the expenditure being financed. And finally, to at least some extent distortions associated with tax finance may reflect the distributional (or re-distributional) goals of society and should not be used as a discount factor that limits the extent of the public sector. On the other hand, some authors may be correct in suggesting that at least a minimal MCF correction could be called for unless there is a good reason for NOT making such a correction.

In response to the third question, more attention should be paid to linkages between expenditures and revenues than has been given so far. Some of these linkages include: user charges for public services, earmarked benefit taxes, local taxes financing local services, income taxes financing general public goods, and loan finance for investment projects.

His final conclusion is that *financing matters*. Taking into account the financing side of public expenditures is an essential component of the process by which good budgetary decisions—decisions that should reflect people’s real preferences—can be obtained in any society. Much of the rationale for accountability-building decentralization lies in such arguments.

The staffs of the *World Bank and IMF* (chapter 5) have prepared a set of Draft Guidelines for debt management. These guidelines cover both domestic and external public debt and are designed to assist policymakers in considering reforms to strengthen the quality of their public debt management and reduce their country's vulnerability to international financial shocks. Vulnerability to such shocks is greater from small and emerging market countries because their economies may be less diversified, have a smaller base of domestic financial savings and less developed financial systems and may be more susceptible to financial contagion through the relative magnitudes of capital flows. Governments should ensure that both the level and rate of growth in the public debt is sustainable, and can be serviced under a wide range of circumstances while meeting cost or risk objectives. There may be a trade-off between cost of debt and risk or sustainability which must be taken into account; for example crises have often arisen because of an excessive focus by governments on possible cost savings associated with large volumes of short term debt which has left government budgets seriously exposed to changing financial market conditions, including changes in the country's creditworthiness, when this debt has to be rolled over.

Each country's capacity building needs in sovereign debt management will be shaped by the capital market constraints it faces, its exchange rate regime, the quality of its macroeconomic and regulatory policies, the institutional capacity to design and implement reforms, the country's credit standing, and its objectives for public debt management.

The guidelines for prudent debt management are summarized below. The chapter gives a detailed description of each of the reforms.

*Debt management objectives and coordination*—Debt management should encompass the main financial obligations over which the central government exercises control. Debt managers, fiscal policy advisors, and central bankers should share an understanding of the objectives of and share information about debt management, fiscal, and monetary policies given the interdependencies between their different policy instruments, however there should be a separation of debt management and monetary policy objectives and accountabilities.

*Building transparency and accountability*—There should be: clarity of roles, responsibilities and objectives of financial agencies responsible for debt management (define and disclose objectives of debt management, publicly disclose allocation of responsibilities among ministry of finance, central bank for undertaking primary debt issues, debt management policy advice, secondary market arrangements depository facilities, and clearing and settlement arrangements for trade in government securities); an open process for formulating and reporting of debt management policies should be disclosed; public availability of information on debt management policies (information should be published on the stock and composition of debt and financial assets including their currency, maturity and interest rate structure); and accountability and assurances of integrity by agencies responsible for debt management (audit externally debt management activities, and disclose the accountability framework for debt management).

*Strengthening the institutional framework*—The following should be developed: a governance framework (legal and organizational frameworks for undertaking debt transactions and debt management); and management of internal operations (operational controls including: well-articulated responsibilities for staff, monitoring and control policies, reporting arrangements, code of conduct and conflict of interest guidelines).

*Develop a debt management strategy*—for monitoring risks of government debt structure including currency risk and risks of short term debt.

*Develop a risk management framework*—to identify and manage trade-offs of risk and cost in the government's debt portfolio. Debt managers should consider the impact of contingent liabilities on the government's financial position.

*Development and maintenance of an efficient market for government securities*—to minimize cost and risk over the medium to long run, debt managers should ensure that their policies and operations are consistent with the development of an efficient government securities market, including: portfolio diversification and instruments (to achieve broad investor base and treat all investors equally); in the primary market, debt management operations should be transparent and to the extent possible debt issuance should use market based mechanisms including competitive auctions and syndications; promote the

secondary market (governments should promote secondary markets and the systems used to settle and clear transactions should reflect sound practices)

**(ii) Fiscal Stress**

The next set of papers are concerned with determining the extent to which a government is under fiscal stress. The fiscal stress test is concerned with the following question.

*Fiscal Stress Test:* Is the government maintaining a positive net worth?

*Homi Kharas and Deepak Mishra* (chapter 6) attempt to shed light on the puzzling empirical observation that the actual growth of debt in developing countries has been much greater than the accumulated sum of conventional budget deficits. This is referred to as the phenomenon of “hidden deficits.” The current budgetary accounting practices and guidelines leave room for discretion and encourage financial engineering.

The computation of the budget deficit in practice can be a complicated exercise, given alternative methodologies, measurement issues, different valuation techniques (among other complexities). Researchers have discovered various sources of discrepancies in budget calculations and items that have not been included in the *recorded* budget deficit. These items include non-cash operations (such as drawing down assets and shifting expenses to the outside bounds of the budget) and off-budget expenses (such as debt stock adjustments and contingent liabilities). Some specific examples of problems in deficit calculation are: non-inclusion or partial inclusion of corporate and bank restructuring expenses, the treatment of present and expected costs of entitlements and contingent liabilities (bailouts), exclusion of capital gains and losses from the budget, the use of different valuation methods, and the use of grants and aid to finance the budget deficit.

The authors show that the conventional deficit is only one of six components that contribute to the actual accumulation of government debt. The other five factors are the contribution of growth, the movement of the real exchange rate, domestic inflation, seignorage revenue, and expenditures outside the purview of the budget.

The authors then estimate the size of the hidden deficit for several developed and developing countries using a hypothetical level of debt that the government would have accumulated had

there been no capital gains and losses to the government's liabilities (due to inflation, depreciation of the currency, etc.) and it had not incurred any expense outside the purview of the budget. In other words, the hypothetical debt-GDP ratio is the one that the government would have had if past budget deficits and seignorage were the only two sources financing it. Calculations on seven developed and fourteen developing countries found that the hidden deficit was on average much smaller in the developed countries that were included in the study (0.3 percent compared to 2.6 percent of GDP). The two major reasons for this are that the problem of bailing out failed financial institutions and corporations is more serious in developing and transition countries and that developing countries incur more losses due to exchange rate movements and cross-currency movements.

*Hana Polackova Bixi* (chapter 7) is also concerned with "hidden deficits" or liabilities that governments face but are not recorded as part of the measured fiscal deficit. In many countries, governments can reduce their expenditures (and therefore the measured deficit) by instead providing loan or outcome (ex. minimum pension) guarantees. The author examines closely the various categories of fiscal risks and proposes ways that governments can manage these risks. Transition and emerging-market economies face particularly large fiscal risks. Weak institutions elevate failures in the financial and corporate sectors which, in turn generate political pressures on governments to provide bail-outs.

There are four categories of fiscal risks: i) direct explicit (debt payments, budget expenditures, civil service pay), ii) direct implicit (public investment completion and maintenance, future pensions, and health care), iii) contingent explicit (state guarantees of debt and state insurance), and iv) contingent implicit (defaults of sub-national government, state owned enterprises, failures of private pensions, natural disasters, private capital flows, BOP, the financial system).

The acceptance of contingent liabilities (whether implicit or explicit) by a government is a commitment to take on obligations contingent on future events and amounts to a hidden subsidy and can become a major unexpected drain on government finances in the future. A government's acceptance of contingent liabilities can also create serious moral hazard problems—there is a serious risk of default (and exercise of the contingent

liability) especially when risk sharing is absent. Many governments have yet to consolidate all these obligations and their total magnitude in a single balance sheet and to include them in their overall fiscal analysis and expenditure planning. Contingent implicit create the greatest risk for governments.

Accrual-based accounting, while it encourages governments to prepare a statement of contingent liabilities, does not require that they be included on the balance sheet nor that the risks be evaluated. However accrual based-*budgeting* does require that contingent liabilities enter budget documents and therefore the fiscal analysis.

In dealing with fiscal risks, the first necessary condition is that policymakers identify, classify, and understand the fiscal risks facing the government. Internal groups such as the principal audit institution or external groups (like the IMF, WB, EC, or sovereign credit rating agencies) can assess these risks.

The chapter suggests the following systemic measures to reduce fiscal risks: i) conduct fiscal analysis that factors in the cost of the implicit subsidies in the government's contingent support program; ii) identify, classify, and analyze all fiscal risks in a single portfolio (take stock of liabilities, conduct qualitative analysis of risk, evaluate correlations, and sensitivity to different macro and policy scenarios); iii) determine government's optimal risk exposure and reserve policy (reserve funds can provide liquidity but there is a tradeoff between the opportunity cost of withholding resources and the benefits of having the reserve in case of emergency); iv) internalize and disclose the full fiscal picture (public disclosure is more important than accounting systems to address the problem of government accountability because it allows the public and markets to monitor the government's full fiscal performance); v) monitor, regulate, and disclose fiscal risks to the public and private sectors; and vi) undertake measures to reduce the fiscal risk of individual government programs and promises.

Concrete advice is given for dealing with the risks of individual government programs: i) before the obligation is taken on, assess how the obligation fits the announced role of the state, consider the policy choices with respect to the risks, design the program against risk (include risk sharing), and define and communicate standards for and limits of government intervention (to reduce moral hazard); ii) when the obligation is held, stick to the pre-set limits of government responsibility,

disclose the obligation, and monitor risk factors and reserve funds; and iii) after the obligation falls due, execute it within the pre-set limits, and if implicit, determine whether fulfilling it coincides with the state's announced role and responsibilities.

Finally, the author offers as an example the case of the Czech Republic as a country whose hidden deficit is quite large due to off-budget spending and implied subsidies extended through state guarantees.

*Matthew Andrews* and *Anwar Shah* (chapter 8) argue that citizens increasingly ask similar questions of their governments that they ask regarding their own household matters: "Is the government maintaining a good cash balance?" "Apart from its short-term position, how is it faring over the long-run—do government assets exceed liabilities (especially those that could be called contingent liabilities)?" "How valuable are the government's long-term assets, are they holding their value and is government using them efficiently?" "How much value does government add on an annual basis (what kind of performance does government achieve through its operations)?"

These questions relate to the multiple dimensions of a household or organization's worth or value: short-term value, long-term worth and value-added (or performance). Andrews and Shah argue, however, that common financial management practices in the developing world—often influenced by reforms focused on deficit reduction—tend to reflect a short-term value concentration alone, and encourage the entrenchment of incentives associated with such. They ask three important questions of such one-dimensional fiscal management: 1. Do good short-term evaluations in terms of deficit figures outweigh bad evaluations in terms of service performance and long-term financial condition? 2. Will the neglect of two dimensions of government value, long-run financial position and service performance, hurt countries in the long-run (or will the achievement of short-run value facilitate a multi-dimensional perspective in the future)? 3. How can government finances be managed (and reported on) to facilitate a multi-dimensional reflection of government value?

The first two questions are addressed in a section exploring the incentives created by the short-term control bias in fiscal management practices in developing countries. It is suggested that all evaluation methods have an impact on incentives, with the old performance adage quoted: 'what gets measured gets



done'. The argument is that focusing on one aspect of government value (the short-run fiscal discipline) when in fact government value consists of three aspects, leads to incentives that make a more comprehensive valuation perspective difficult to establish in the future. These incentives become entrenched in public sector budgeting leading to a focus on inputs instead of results, capital neglect, and intergenerational money shifting.

An obvious response to this argument is to look for ways in which governments can move beyond the short-run fiscal discipline emphasis to measure all aspects of public sector value or worth and thus create incentives for managers to develop all three dimensions of worth as well. In this light Andrews and Shah look at the experiences of countries like New Zealand, the United Kingdom and Malaysia, all of which have built on traditional accounting approaches to provide more complete measures of the three dimensions of government value. The main accountability dimension emphasized in the new financial management practices in these countries is the performance focus and the particular tools that have been adopted to improve internal and external evaluation in these governments include accrual accounting, explicit valuation of contingent liabilities, intergenerational accounting, capital charging, activity-based costing, and the publication of performance statements. The importance of each tool is briefly discussed and it is shown how their combined use yields a fuller picture of the fiscal health of the government.

### ***(iii) Bottom-up Accountability***

*Citizen Accountability Test:* How does the government know it is delivering according to what the citizens had mandated? What happens when it does not conform to this mandate?

Chapter 9 by *Anwar Shah* is concerned with creating a new culture of public governance that is responsive and accountable to citizens. The chapter argues that a results oriented management and evaluation (ROME) holds significant promise of overcoming the ills of a dysfunctional command and control, and an overbearing and rent seeking public sector in many developing countries. ROME de-emphasizes traditional input controls and instead is concerned with creating an authorizing environment in which the public officials are given the flexibility to manage for results but are held accountable for delivering public services consistent with citizen preferences. Further,

under ROME, incentive mechanisms induce public and non-public (private and non-government) sectors to compete in the delivery of public services and to match public services with citizen preferences at lower tax cost per unit of output to society.

**(iv) Public Integrity**

*Public Integrity Test:* How is the executive branch held accountable for any abuses of public office for private gains?

Mark Schacter (chapter 10) describes mechanisms through which elected leaders can be held accountable to the public. Since the ballot box is often not sufficient to ensure accountability, there are other institutional mechanisms that have been developed to enhance it. More specifically, there are two types of accountability: vertical accountability (to citizens directly through the ballot box) and horizontal accountability (to public institutions of accountability—IAs). The institutions of horizontal accountability include: the legislature, judiciary, electoral commissions, auditing agencies, anti-corruption bodies, ombudsmen, human rights commissions, and central banks. Institutions of horizontal and vertical accountability are fundamentally interconnected, in that horizontal accountability is not likely to exist in the absence of vertical accountability. That is because governments will only bind themselves with institutions of horizontal accountability when they will be punished by citizens for failing to do so. In addition, civil society is believed to be another influential factor in the development of institutions of horizontal accountability.

The model presented in the paper concentrates on the interaction between IAs and the executive branch of government. At the core of the analytical model is the idea of an “accountability cycle,” which is an idealized model of the relationship between and IA and a unit of the executive branch, describing the internal logic of the IA-executive relationship. This cycle consists of three stages: i) information (or input), ii) action (or output), and iii) response (or outcome). Timely and accurate information about the activities of the executive is the critical input for the accountability cycle. Based on the information inputs, the IA should be able to take action by putting demands on the executive to justify the manner in which it is carrying out its responsibilities. Finally, the IA’s

outputs are intended to incite a response from the executive to the demands that the IA has placed on it.

The IA's effectiveness depends critically on the ability of the IA to understand and analyze information about the executive, transform the analysis into coherent demands upon the executive, communicate those demands to the executive, and have sufficient power to elicit a meaningful response from the executive. When an IA is not functioning, a rule of thumb is to focus on the lowest rung of the hierarchy that is not working properly. In addition, contextual information (about social, economic, and political factors) are important to understanding the accountability cycle more fully. Examples of such contextual factors include: history of relations between citizens and the state, social tensions based on ethnic, regional or class distinctions, structure of the economy, and the nature of civil society.

In applying IAs to the study of corruption reduction, two things must be kept in mind: IAs alone will not cure corruption, and broader environmental factors (beyond the inner working of the IA) must be considered. Klitgaard's "formula" for corruption is useful in clarifying this link. According to him,  $\text{Corruption} = \text{Monopoly} + \text{Discretion} - \text{Accountability}$ . As one can see, accountability is only one "variable" contributing to corruption. Therefore, the policies that contribute to monopoly and discretion must also be addressed in the context of an anti-corruption initiative.

The absence of political/administrative commitment to accountability, along with insufficient availability of information regarding the activities of the executive are the two primary constraints to the effective operation of IAs. In cases where the political elite is unlikely to act, civil society may have an important role in initiating such reforms.

Finally, the author proposes a list of performance indicators while fully recognizing their limitations.

# 1

## BUDGETING INSTITUTIONS AND PUBLIC SPENDING

*Jürgen von Hagen*

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### Introduction

Public spending is a story of some people spending other people's money. In order to exploit economies of scale in government, voters in modern democracies elect politicians, individuals specializing in policy making, to make decisions about public spending for them, and they provide the funds spent by paying taxes. Thus public spending involves delegation, and, hence, principal-agent relationships. As in similar relationships, the elected politicians can extract rents from being in office, i.e., they can use some of the funds provided by the voter/taxpayer to pursue their own interests, be it outright corruption, the use of public monies for goods benefiting only their individual interests (perks), or simply waste arising from negligence. In principle, voters could eliminate the opportunity to extract rents by subjecting the elected politicians to ex-ante rules specifying precisely what they can and must do under given conditions. However, the need to react to unforeseen developments and the complexity of the situation makes the writing of such contracts impossible. For the same reason, it seems unrealistic to assume that politicians can commit themselves fully to the promises they make during election campaigns. Hence, like principal-agent relations in many other settings, the voter-politician relationship resembles an "incomplete contract" (Seabright 1996, Persson et al. 1997, Tabellini 2000).

The distinction between general public goods, such as defense or home justice, which benefit all citizens (taxpayers) alike, and targeted public policies, such as local public goods, sectoral policies or transfers targeted at subgroups of citizens (taxpayers) in society is another fundamental aspect of public finance. Targeted public policies, when paid for from the general tax fund, involve redistribution of resources among citizens (taxpayers); we therefore refer to them as distributive

policies. As citizens living under different circumstances demand different targeted public policies from their government, the voter-politician relationship is best characterized as a principal-agent relationship with multiple, heterogeneous principals that compete among each other for public monies. Voters belonging to a group benefiting from targeted public policies can reward politicians by reelecting them into office. This implies that politicians can use distributive policies strategically to ensure their confirmation in office (Persson and Tabellini 1999a).

A second important implication of distributive policies is that those who benefit from a specific, targeted public policy and those who pay for it are generally not the same. Instead, those who benefit typically pay a small share of the total cost. As a result, politicians representing the interests of individual groups in society tend to overestimate the net social benefit from targeted public policies, as they perceive the full social benefit from policies targeting their constituencies, but only that part of the social cost that the latter bear through their taxes. This is the “common pool” property of public budgeting (von Hagen and Harden 1996).

Both the multiple principal-agent relationship and the common pool property generate potentials for excessive levels of spending, taxation, and public borrowing. The more rampant the principal-agent problem, the greater will be the divergence between voter preferences and the level and composition of public spending. A comparison of jurisdictions in which public finances are determined by direct democracy with jurisdictions in which representative democracy prevails illustrates the point. Empirical studies show that, *ceteris paribus*, direct democracy leads to lower levels of government expenditures and taxes, lower levels of government debt, an increase in local versus state spending, and a tendency to finance government expenditures by charges rather than broad-based taxes (Pommerehne 1978, 1990; Matsusaka 1995; Kirchgässner et al. 1999; Feld and Kirchgässner 1999). Other empirical studies suggest that government spending and debt increase with the intensity of conflict among the principals measured by the severity of ideological or ethnic divisions within a society (Roubini and Sachs 1989, Alesina and Perotti 1995, Alesina et al. 1997), or by ethnolinguistic and religious fractionalization (Annett 2000). The latter paper

argues that the impact of ethnic and other divisions among voters on public spending works through political instability: The more fractionalized a society, the more unstable are its governments, and instability leads to higher levels of public spending.

Similarly, the more severe the common pool problem, the greater will be the divergence between the marginal social utility and the marginal social cost of targeted public policies. Empirical studies show that this leads to excessive levels of spending, deficits, and debt (von Hagen 1992, von Hagen and Harden 1994a,b, Strauch 1998, Kontopoulos and Perotti 1999). As Annett (2000) points out, empirical evidence showing that ethnic and other types of social fractionalization induce higher public spending are also consistent with the common pool argument of excessive public spending, as fractionalization leads the representatives of one group in society to disregard the costs of public spending borne by other groups.

Societies can react to these problems by creating institutions that mitigate their adverse effects. A first approach is to impose ex-ante controls on the scope of the choices elected politicians can make regarding public finances. Examples are balanced-budget constraints forcing policy makers to limit the amount of debt they can raise or referendum requirements for raising tax rates. A second approach is to strengthen accountability and competition among elected politicians, increasing their incentives to deliver the policies voters prefer to assure tenure in office. This is the main function of electoral systems in our context. A third approach is to structure the decision making processes over public finances among the policy makers in ways that force them to recognize more fully the marginal social benefits and costs of their policies. This is the principal task of the budget process. In this paper, we subsume all three approaches under budgeting institutions. We thus take a rather broad perspective of budgeting institutions.

The remainder of this paper proceeds as follows. Section II discusses ex-ante controls as instruments to limit the principal agent problem and the common pool problem. Section III discusses the role of electoral institutions in shaping and limiting the principal agent problem. Section IV considers the institutional aspects of the budget process.

Section V concludes with some remarks on institutional reform.

### **Ex-ante Controls**

The most straightforward approach to controlling the performance of policy makers is to subject them to ex-ante controls, i.e., constitutional constraints on budgetary aggregates. In practice, such constraints impose quantitative limits either on deficits or on spending. Balanced budget constraints mandated by the constitution are often found as a mechanism to limit the borrowing of sub-national governments (von Hagen and Eichengreen 1996, Stein et al. 1999). Most state governments in the U.S. are subject to a balanced budget requirement of some sort, and many state constitutions require public referenda for raising tax rates. Such constraints seem attractive, because they are simple, easily understood and very visible. The historical events leading to the imposition of such constraints in the U.S. and in Canada suggest that they are often the result of the desire of disgruntled taxpayers to impose constraints on the spending profligacy of their elected representatives (Eichengreen and von Hagen 1996, Millar 1997).

It is interesting, therefore, to see how successful such constraints are. The experience of American state governments is very instructive in this regard. Almost all state governments have some constraints on either the size of the deficits or the size of public debt they can issue. These constraints come in varying degrees of strictness, ranging from constraining only the governor's budget proposal to be balanced to an outright ban on revenue out-turns falling short of actual expenditures. ACIR (1987) and Strauch (1998) provide overviews and characterizations of these constraints.

Strauch (1998) reports empirical results indicating that strict balanced budget constraints effectively limit the size of the annual balance on the government's current account (total less investment spending). Eichengreen (1990) shows that the stringency of balanced budget constraints has a significant and negative effect on a state's debt ratio. Importantly, however, Eichengreen considers only the level of "full faith and credit" debt, i.e., debt that is fully and explicitly guaranteed by the state government. Von Hagen (1991) takes a broader

perspective and includes other types of public debt in the empirical analysis, such as debt issued by public authorities. He finds that the stringency of numerical constraints has no effect on the total debt. The two results are easy to reconcile: They suggest that states subject to stringent numerical deficit constraints tend to substitute debt instruments not covered by the legal rule (resulting from off-budget activities) for full faith and credit debt. Kiewiet and Szakalay (1996) find a similar effect by showing that states with more restrictive borrowing constraints imposed on the state government tend to have larger debts incurred by municipal governments. Von Hagen and Eichengreen (1996) show in a cross-country comparison that countries where sub-national governments are subject to stringent statutory borrowing constraints tend to have higher debt ratios of their central governments. This indicates a third substitution effect: Where sub-national governments are not allowed to borrow in their own authority, they tend to pressure the central government to borrow on their behalf.

Furthermore, Poterba (1994) shows that state governments subject to stricter balanced-budget constraints tend to cope less efficiently with fiscal shocks, as they tend to cut spending in response to negative revenue shocks, which results in procyclical policies. Strauch (1998) shows that constitutional expenditure limits, which are found on many constitutions of the states in the U.S., do not constrain spending effectively. Instead, they induce a shift from the current to the investment budget.

The important insight from these studies is that ex-ante controls on fiscal choices constrain politicians more effectively in the short run than in the long run. In the long run, policy makers find ways around such controls. Since it is impossible, in practice, to impose rules, which cannot be circumvented in this way, and since the individual citizen's incentive to monitor policy makers' behavior and turn to the courts to enforce the rules are weak, the effectiveness of ex-ante controls seems limited. To the extent that creative practices to circumvent them reduce the transparency of public finances and of the relevant decision making processes, they may actually reduce the voter's ability to monitor the performance of the elected politicians and, therefore, aggravate rather than reduce the principal agent problem.



As in other principal-agent relationships, a suggestive solution to this problem is to rely on an outside authority that enforces *ex-ante* rules effectively. One alternative for this would be an international financial organization. Specifically, IMF assistance programs regularly come with fiscal constraints on the recipient country. The IMF's enforcement power is derived from the threat that the financial assistance will not be disbursed, if the fiscal constraints are violated. But the IMF approach has, at least, two severe limitations. First, since assistance programs are agreements between the IMF and the executive, the legislature may not feel bound by this agreement. It is, therefore, doubtful that outside enforcement works in political settings where the executive has weak control over the legislature. Second, IMF assistance programs come in times of crisis, i.e., when public finances are already in disarray. In more normal times, the IMF has little enforcement power, since it has no penalties to impose.

The preparation of European Monetary Union (EMU) has furnished another example of enforcing budgetary rules through an international organization. With the Maastricht Treaty first, and the "Stability and Growth Pact" later, the EMU states in fact signed a treaty committing them to a set of fixed targets. These countries have to submit "Stability and Growth Programs" annually explaining the governments' strategies to meet these targets. The European Commission, after reviewing these reports and the relevant data issues judgments of the countries' fiscal stance, which become the basis for the European Council's assessment and possible recommendations. Before the start of EMU on 1 January 1999, the external enforcement power was based on the threat of exclusion from the monetary union. Today, it is based on the threat of public reprimand of fiscal profligacy and the possibility of financial fines.

But the success of the European approach has been limited so far (von Hagen 1998). When the Maastricht process started in 1992, the average debt ratio of the European Union states stood at 60 percent of GDP and in 1998, it was over 75 percent. A closer look reveals that this increase was driven entirely by the fiscal developments in Germany, France, Spain, Italy, and the U.K., which did not commit itself to EMU. It is probably no coincidence that the other four countries are the largest countries among the 12 EMU states, as the role of

external political pressures such as admonitions brought by the European Commission are not strong enough to coerce internal politics in large countries. Note also that the European Commission, in its assessment of the fiscal criteria for EMU membership, treated the large countries with considerable lenience. The threat of excluding Germany or France from EMU was hardly credible, since EMU would not have made much sense without these countries in the first place. All this suggests that the effectiveness of outside actors in enforcing ex-ante fiscal rules depends critically on the importance of international organizations in domestic politics, which is plausibly a function of the size of the country<sup>1</sup>

### **Political Systems: Competition and Accountability**

The essence of the interpretation of the voter-politician relationship as an incomplete contract is that voters vest policy makers with discretionary powers to execute their offices and, at the same time, introduce procedures for holding them responsible for their actions (Persson et al. 1997a,b). The election process is the most important procedure for doing this. Here, we focus on two aspects of electoral institutions. They allow voters to hold policy makers personally accountable for past policies, and they create competition among politicians.

If politicians cannot make binding commitments during election campaigns, voters have little reason to elect them on the basis of their campaign promises. But if politicians are also opportunistic in the sense that they care about their rents and wish to remain in office, elections give voters the opportunity to hold them accountable for their past performance. This is the basic idea of the retrospective-voting paradigm. According to this paradigm, voters assess the past performance of policy makers based on the information available to them. If they regard their behavior as satisfactory, they reappoint the incumbents. If not, they vote for alternative contestants competing for the same office. This mechanism

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<sup>1</sup> This is consistent with Katzenstein's (1984) conjecture that governments in small open economies are typically more responsive to pressures from outside than governments in large countries.

suggests that rents can be contained if accountability is strong and competition is fierce.

In this section, we compare two electoral rules and two principles of organizing the executive branch of government from this perspective. The two electoral rules are the plurality rule and proportional representation. The two organizational principles are parliamentary and presidential government.

### **Electoral Rules**

Electoral rules can be compared according to district magnitude, i.e., the number of representatives in parliament elected from each electoral district. At one extreme end of the spectrum, there is exactly one representative chosen from each district, hence, the candidate with the largest number of votes in a district wins the seat in parliament. This is the plurality rule, which prevails, e.g., in the U.S. and the U.K. At the other extreme end, an entire country is just one large electoral district and candidates for all seats in parliament are drawn from national party lists according to the share of votes cast for that list in the entire country. This is the rule of proportional representation, which prevails, e.g., in the Netherlands. Less extreme forms of proportional representation divide a country into several large electoral districts, with party lists presented for each of them.

Plurality rules focuses the election on the personal performance of the individual candidates and, hence, maximize personal accountability. Voters have all reason to monitor the performance of the individual in office and to reelect him if he delivers the kind of policies that please them. Proportional representation, in contrast, weakens personal accountability. Voters can judge politicians only on the basis of the average performance of all candidates elected from the party list. This gives politicians more freedom to work for their own interest. At the same time, proportional representation gives voters less opportunity to reward politicians for channeling general tax funds to the specific region where they live. Thus, proportional representation reduces the politician's incentives for using distributive policies to secure his reelection.

This reasoning has three public finance implications. First, as personal accountability puts a check on the politician's ability to extract rents, we should expect less waste and

smaller levels of public spending under plurality rule than under proportional representation.

Second, as voters reward politicians for attracting money from the general (national) tax fund to their districts through distributive policies, we should expect a higher share of money spent on such policies and a lower share of money spent on general public goods in total government spending under plurality rule than under proportional representation (Tabellini 2000). Note, however, that this argument assumes that geography is the dominant dimension for targeting public policy programs. While this is true for items like public infrastructure, many subsidies and transfer programs are targeted at individual groups in society such as professional groups, business sectors, or minorities. If political parties under proportional representation are organized around such particular interests and the number of parties is large, each party is faced with strong incentives to spend money from the general tax fund on programs benefiting its constituency. As a result, the share of money spent on local public policies would be small, but the share of money spent on policies targeting specific groups in society could be as large as the share of money spent on policies targeting individual districts under plurality rule. Thus, regarding the mix of public spending, the distinction is sharpest between plurality rule and proportional representation when the latter is combined with a small number of large parties each representing a large spectrum of interests in society.

Third, representatives from different districts have strong incentives to engage in logrolling and games of reciprocity to find majorities for policies favoring individual districts. Thus, plurality rule also contributes positively to the common pool problem. From this perspective, we should expect larger levels of spending and larger deficits and debts in countries with plurality rule than in countries with proportional representation. However, following the logic of the previous argument, this distinction should again be sharpest between plurality rule and proportional representation when combined with a small number of large parties.

This leads us to the other aspect, competition. The need to gain a large share of votes in a district under plurality rule is an important barrier to entry for small parties. Political newcomers find it difficult to challenge incumbent politicians,

because they need a majority to succeed from the start. In contrast, newcomers can win at least a small number of seats in parliament under proportional representation. Political competition is, therefore, more intense under the latter system. If contestants use the election campaign to identify waste and point to instances of rent-extraction, one can expect more intense competition to lead to less waste and smaller rents. Thus, the consequences of weaker accountability under proportional representation may be compensated by more intense competition. At the same time, proportional representation allows interest groups that are too small to win any individual districts under plurality rule to form political parties for countrywide platforms and win some seats in parliament.

In practice, systems of proportional representation often include minimum vote thresholds to keep very small, particularistic parties out of parliament. Such thresholds mitigate the political pressures for more spending on targeted public policies. At the same time, however, they act as barriers to entry into the political market and, therefore, reduce competition. Consequently, minimum-vote thresholds increase the likelihood of having a small number of large parties under a system of proportional representation.

### **Presidential versus Parliamentary Government**

Presidential governments are characterized by the fact that the leader of the executive, the president, is appointed in direct elections, whereas the leader of the executive is typically chosen from among a stable majority coalition in parliamentary forms of government. In our context, the most important differences between the two systems are, first, the greater separation of powers between the executive and the legislative branch of government and, often in practice, within the legislative branch of government. Second, the greater reliance of the executive on stable majorities based on party allegiance or coalition contracts to pass legislative proposals in parliamentary systems restricts competition among the members of parliament compared to presidential systems.<sup>2</sup>

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<sup>2</sup> This is obviously a rough characterization only. The following discussion is based largely on Persson and Tabellini (1999a) and Tabellini (2000).

In presidential systems, new legislation is typically proposed either by the president or by legislative committees with well-defined jurisdictions. Individual legislators are not bound strongly by party membership, instead, they vote for or against legislative proposals depending on what they perceive to be best for their constituencies. In order to pass, proposals must attract minimal winning coalitions within the legislature, and these coalitions can change across legislative fields and over time. This instability creates fierce competition among the legislators for rents and distributive policies benefiting their constituencies, which can be exploited by the committee making proposals.

As Persson and Tabellini (1999a) show, separation of powers in this setting can be used to create checks and balances on the power of politicians. Specifically, giving the right to propose the level of taxation to the president (or the tax committee in the legislature) and the right to propose the level and composition of spending to parliament (or to a different spending committee) implies that voters hold the president (the members of the tax committee) accountable for the level of taxation and the legislators (the members of the spending committee) for delivering the desired amount and composition of public services. Thus, the president (the members of the tax committee) and the members of the spending committee face different and partially conflicting incentives in making their proposals. If taxes are determined before expenditures, the president (or the tax committee) will propose the lowest possible level of taxation.<sup>3</sup> Members of the spending committee will then submit proposals that use the smallest possible amount of distributive policies targeting other groups of voters to finance policies benefiting their own constituencies. Competition for distributive policies among the legislators, who are not members of the spending committee, drives the amounts spent in favor of their constituencies to zero in equilibrium. At the same time, the members of the

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<sup>3</sup> As Persson and Tabellini (1999a) show, there is a lower bound on taxes resulting from the incentive constraint that public expenditures must be large enough to keep the incumbent members of the spending committee interested in remaining in office, i.e., to keep them from appropriating all public revenues for themselves and be voted out of office in the next elections.

spending committee will favor public policies targeted to their constituencies over general public goods, since they can make other voters pay for them. Anticipating this, the president (or the tax committee) sets the level of taxes low enough to minimize rents and distributive policies favoring the members of the spending committee. As a result, the separation of powers combined with unstable winning coalitions in the legislature leads to under-provision of general public goods, small rents, small levels of distributive policies, and relatively low levels of government spending and taxation.<sup>4</sup>

Parliamentary governments, in contrast, are characterized by a smaller degree of separation of powers and more cohesion among legislators. Even if the formal right to initiate legislation in parliament exists, legislative proposals are typically made by the executive, which counts on its stable majority for passing them. As a result, voters cannot hold different politicians accountable for setting taxes and expenditures. Instead, taxes and spending are negotiated among the members of the executive and voters can hold policy makers accountable only for the entire package of tax and spending decisions. With less accountability, the scope for rent-extraction increases. Furthermore, legislators do not compete in the same, intensive way for distributive policies, as party allegiance and coalition agreements generate more cohesion among them. Negotiations among party leaders for taxes and the level and composition of public spending, therefore, internalize the interests of a broader range of constituencies and this implies a stronger representation of the voters' interest in general public goods. Furthermore, in this less competitive environment the participants in these negotiations can secure higher levels of distributive policies favoring their constituencies than they could in a presidential system. Compared to presidential systems, parliamentarian systems therefore lead to higher rents and targeted public policies, but also to a more efficient provision of general public goods.

### **Empirical Evidence**

Empirical research into the public finance implications of electoral systems has only recently begun. Persson and

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<sup>4</sup> Unsurprisingly, this result depends crucially on the sequence of votes in parliament and the strict separation of committee jurisdictions.

Tabellini (1999b) find that countries with presidential governments tend to have smaller governments (measured in terms of government spending in GDP) than countries with parliamentary governments. They also find that countries with plurality rule have smaller governments, although this result is not statistically robust. Persson, Tabellini, and Trebbi (2000) find that countries with proportional representation are characterized by higher levels of corruption than countries where plurality rule prevails. If corruption is a proxy measure for rents, this confirms the hypothesis that the lower degree of electoral competition and accountability to voters under proportional representation entails larger rents. Persson and Tabellini (1999b) also report evidence showing that plurality rule elections and presidential government lead to less supply of general public goods than proportional representation and parliamentary government.

Hallerberg (2000) presents a case study of the Italian electoral reforms and their public finance consequences. In 1994, Italy replaced its former system of proportional representation by one that has three quarters of all seats in parliament elected by plurality rule and the remaining seats on the basis of proportional representation. The reform was introduced with the hope that plurality rule would generate more stable governments and a bi-polar party system. As it were, this did not happen immediately. But when elections were called again in 1996, the tendency towards a bi-polar system became stronger. Hallerberg argues that this was an important step preparing Italy's accession to EMU.

Empirical research in this area is difficult not the least because political systems, in practice, do not neatly conform to the stylized characterizations used above. For example, in some countries with proportional representation, voters can influence which rank individual politicians have on the party list. This strengthens accountability under this electoral system. Furthermore, presidential systems offer the possibility for separation of powers, but this possibility is not necessarily used in practice. Thus, more detailed characterizations are necessary.

Nevertheless, the existing evidence, scant as it is, supports the view that electoral institutions have important consequences for public spending. The policy implication one can draw from this evidence is that accountability of and



competition among politicians are effective controls of rents and affect the provision of general and public goods and distributive policies. In practice, accountability and competition can be strengthened by institutional design even without as sweeping reforms as a move from a parliamentary to a presidential system or from proportional representation to plurality rule would entail.

### **Limiting the Common Pool Problem: The Budget Process**

As discussed in the introduction, the core of the common pool problem of public budgeting is that the budget involves an externality—money from a general tax fund is used to finance distributive policies benefiting particular groups in society. At the heart of the problem is a misperception about the true budget constraint. Individual politicians each assume that an increase in public spending on targeted policies will provide their constituencies with more of the public services they desire at only a fraction of the total cost, since the rest is paid by other taxpayers. As a result all politicians ask for more public services than they would if they realized the true budget constraint, i.e., if each benefiting group were charged the full cost of the services delivered. The larger the number of politicians drawing on the same general tax fund, the lower seems marginal cost of distributive policies for each of them and the greater is the overspending bias. Putting this argument into a dynamic context, where money can be borrowed to finance current spending, one can show that the common pool problem leads to excessive deficits and government debts in addition to excessive spending levels (Velasco 1999, von Hagen and Harden 1996).

The analogy with a common pool problem suggests that excess spending and deficit bias can be reduced, if politicians can be made to realize the true budget constraint. This is the main role of the budget process in our context. Broadly speaking, the budget process consists of the formal and informal rules governing the decisions regarding public spending within the executive and the legislative branches of government. It includes the rules relating to the formulation of a budget by the executive, to its passage through the legislature, and to its implementation by the executive. These

rules divide this process into different steps, they determine who does what and when, and they regulate the flow of information among the participants. The budget process thus distributes strategic influence and creates or destroys opportunities for collusion. As we will discuss in more detail below, appropriate rules in the budget process can induce politicians to take a comprehensive view of the costs and benefits of all public policies financed through the budget, while inappropriate rules fail to do that and encourage politicians to care only about the rents and distributive policies they can attract for themselves. In the latter case, we call a budget process fragmented. The opposite of fragmentation is centralization of the budget process. A centralized budget process thus coordinates the spending decisions of individual politicians by inducing them to take a comprehensive view of the budget.<sup>5</sup>

Institutional design of the budget process can serve this purpose effectively only if all conflicts between competing claims on public finances are indeed resolved within the budget process. Four deviations from this principle undermine the functioning of the budget process.

The first deviation is the existence of off-budget funds used to finance government activities, which allow policy makers to circumvent the constraints of the budget process and remove their decisions altogether from being challenged by conflicting distributional interests. The second deviation is the spreading of “non-decisions,” which occur, when expenditures included in the budget are determined by developments exogenous to the budget process. Prime examples are the indexation of spending programs to the price level or aggregate nominal income, and “open-ended” spending appropriations, e.g., welfare payments that are based on entitlements whose parameters are fixed by simple law or decree, and the government wage bill.<sup>6</sup> Non-decisions conveniently allow

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<sup>5</sup> Centralization of the budget process should not be confused with regionally centralizing government.

<sup>6</sup> Note that there is nothing *natural* about determining wage, social security, and welfare expenditures outside the annual budget process. Indeed, setting the relevant parameters is a part of the annual budget process in some countries. Another way to limit the open-endedness of entitlements, used in Denmark, is to set cash limits on welfare

policy makers to avoid “tough” decisions (Weaver 1986), but they degrade the budget process to a mere forecast of exogenous developments.<sup>7</sup> The third deviation is the existence of “mandatory spending laws”, i.e., non-financial laws that make certain government expenditures compulsory. The budget then becomes a mere summary of the existing spending mandates created by simple legislation. An effective budget process requires a clear distinction between non-financial laws (which create the authorization for certain government undertakings) and the budget, which makes specific funds available for a specific time period. The fourth deviation occurs when the government enters into contingent liabilities such as guarantees for the liabilities of other public or non-public entities. Promises, implicit or explicit, to bail out sub-national governments (as in Germany in the late 1980s), regional development banks (as frequently in Brazil), or financial institutions (as in the Savings and Loans debacle in the U.S.) can suddenly turn into large government expenditures outside the ordinary budget. While one must recognize that contingent liabilities cannot be fully avoided and that a proper accounting of them is a difficult task, their existence and importance for the government’s financial stance can be brought to the attention of decision makers in the budget process by requiring the government to submit a report on the financial guarantees it has entered into as part of the budget documentation.

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appropriations and require the relevant minister to propose spending adjustments and changes in the relevant non-financial laws if these limits are overrun (von Hagen and Harden 1994a).

<sup>7</sup> Where non-decisions prevail strongly, the government budget becomes heavily dependent on institutions outside the annual budget process, i.e., wage setting institutions in the public sector, the social security system, the welfare system, and labor market regulations. Under such circumstances, fiscal discipline becomes heavily dependent on the quality of a country’s institutions outside the budget process as well. Germany’s experience with unification illustrate the point. There, weaknesses in the labor market legislation extended immediately to East Germany allowed unions and employers associations to raise the fiscal cost of unification by reaching wage agreements that kept East German labor from competing for jobs in West Germany, and implied generous unemployment payments to East German workers instead. (See von Hagen 1997 for details.)

### **Institutional Elements of Centralization**

Budget processes can be proximately divided into an “executive planning” stage, a “legislative approval” stage, an “executive implementation” stage, and an “ex-post control” stage. Each stage involves different actors with different roles. The executive planning stage usually begins about a year before the relevant fiscal year and ends with the submission of a draft budget to the legislature. It involves the setting of budget guidelines, bids for budget appropriations from the various spending departments, the resolution of conflicts between the spending interests in the executive, and the drafting of the revenue budget. The legislative approval stage includes the process of parliamentary amendments to the budget proposal, which may involve more than one house of parliament. This stage ends with the passing of the budget law. The executive implementation stage covers the fiscal year to which the budget law applies. During the implementation stage, deviations from the budget law can occur, either formally by adoption of supplementary budget laws in parliament, or informally by shifting funds between chapters of the budget law and by overrunning the spending limits provided by the law.

Institutional elements of centralization primarily concern the first three stages, with different elements applying to different stages.<sup>8</sup> At the executive planning stage, the purpose of such elements is to promote agreement on budget guidelines (spending and deficit targets) among all actors involved, ensuring fiscal discipline. Elements of centralization must at this stage foster consistent setting of such guidelines and assure that they constrain executive decisions effectively. A key element here concerns the way conflicts among members of the executive are resolved throughout the budget process. Uncoordinated and ad hoc conflict resolution involving many actors simultaneously promote log-rolling and reciprocity and, hence, fragmentation. Centralization is

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<sup>8</sup> At the last stage of the process, the legality of the budget is checked by the appropriate accounting body. Obviously, the design of the budget process becomes ineffective, if policy makers operate outside the law. Thus, the last stage provides an important, necessary condition for the effectiveness of institutional design.

increased, if conflict resolution is the role of senior cabinet committees or the prime minister.

At the legislative approval stage, elements of centralization control the debate and voting procedures in parliament. Because of the much larger number of decision makers involved, the common pool problem is even larger in the legislature than in the executive. Fragmentation is rampant, when there are no limits to the changes parliament can make to the executive's budget proposal, when spending decisions are made in legislative committees with narrow and dispersed authorities ("Balkanization of Committees," see Crain and Miller 1990), and when there is little guidance of the parliamentary process either by the executive or by the speaker. Centralization comes with strengthening the executive's agenda setting power in parliament by placing limits on scope of amendments, controlling the voting procedure, and raising the political stakes of a rejection of the executive's budget, e.g., by making this equivalent to a vote of non-confidence. Centralization can also come with strengthening the role of the speaker and the financial committee in the legislature.

At the implementation stage, elements of centralization assure that the budget law effectively constrains the spending decisions of the executive. One important element of this is strengthening the finance minister's ability to monitor and control the spending flows during the fiscal year. Other important elements are strict limitations on changes of the budget law during the year.

Reviewing elements of centralization in OECD, Latin American and Asian countries reveals that centralization follows two basic approaches. The first is centralization based on "delegation." Under this approach, individual participants in the budget process that are assumed to have a more comprehensive view of the budget than the remaining ones are vested with special strategic powers. The second approach is centralization based on "contracts." This approach emphasizes negotiation of binding agreements among all participants, without lending special authorities to any one of them.

### ***Delegation***

With delegation, the budget process lends special authority to a "fiscal entrepreneur" whose function it is to set the broad

parameters of the budget and to assure that all other participants in the process observe these constraints. To be effective, this “entrepreneur” must have the ability to monitor the other members of the executive, and to use selective punishments against possible defectors. Among the cabinet members, the entrepreneur is typically the finance minister. Since the finance minister is not bound by individual spending interests as much as the spending ministers, and since the finance minister typically is charged with drafting the revenue budget, it is plausible to assume that the finance minister takes the most comprehensive view of the budget among the members of the executive.

In practice, this can take a variety of forms. In the French model of delegation, the finance minister together with the prime minister determines the overall allocations of the spending departments. These targets are considered binding for the remainder of the process. Here, the finance minister has a strong role as *agenda setter* in the budget process. The British model of delegation, in contrast, evolves as a series of bilateral negotiations between the spending departments and the finance minister in which the latter bases his bargaining power on superior information, seniority, and the political back-up from the prime minister.

Under the delegation approach, drafting the budget proposal is mainly the responsibility of the finance ministry, which monitors the individual bids, negotiates directly with the spending departments and approves the bids submitted to the final cabinet meeting. Unresolved conflicts between individual spending and the finance ministers are typically arbitrated by the prime minister.

At the legislative stage, the delegation approach lends large agenda-setting powers to the executive over parliament. One important instrument here is to limit the scope of amendments parliamentarians can make to the executive’s budget proposal. In France, for example, amendments cannot be received unless they reduce expenditures or create a new source of public revenues. In Britain, amendments proposing new charges on public revenues require the consent of the executive. Such restrictions make the budget constraint being felt more powerfully.

A second element concerns the voting procedure. The French government, for example, can force the legislature to

vote on large parts of or the entire budget in a *block vote*, with only those amendments considered that the executive is willing to accept. In the U.K., the executive can make the vote on the budget a vote of confidence, thus raising the stakes for a rejection considerably.

A final element concerns the budgetary authority of the upper house. Where both houses have equal budgetary authority, as in Italy or Belgium, finding a compromise between the two houses is a necessary part of the budget process. This tends to weaken the position of the executive as it now faces two opponent bodies. To strengthen the executive, the budgetary authority of the upper house may be limited as in France and Germany, where the lower house prevails if an agreement between the two chambers cannot be reached. In the U.K., the upper house has no budgetary authority at all, leaving the executive with only one chamber to deal with in the budget process. The position of the executive can also be strengthened by giving the finance minister veto power over the budget passed by the legislature, as in Germany and Spain.

At the implementation stage, finally, centralization requires that the finance minister be able to monitor and control the flow of expenditures during the year. This may take the form of requiring that the spending departments obtain the finance minister's authorization to disburse funds during the year. The finance minister's authority to impose cash limits during the year is another control mechanism. Monitoring spending flows during the year requires a unified system of financial accounts enabling the finance minister to watch the inflow and outflow of resources. Effective monitoring and control is also important to prevent spending departments from behaving strategically, i.e., from spending their appropriations early in the year and demanding additional funds later with the threat of closing down important public services otherwise.

Furthermore, centralization requires tight limits on any changes in the original budget law through the modification of appropriations once the fiscal year has begun. One element here is the requirement that transfers of funds between different chapters of the budget be authorized by the finance minister or parliament. The same applies to transfers of funds between different fiscal years. Although carry-over provisions have obvious efficiency gains, their use should be limited and

strictly monitored to assure that the finance minister can keep track of a spending department's financial position. Another point is restrict the use of supplementary budgets. Where supplementary budgets during the fiscal year become the norm, as in Italy and Belgium in the 1980s and Germany in the 1990s, one cannot expect that policy makers will take the constraints embedded in the original budget law serious.

### **Contracts**

Under a contract approach, the budget process starts with an agreement on a set of binding fiscal targets negotiated among the members of the executive. Emphasis here is on the bargaining process as a mechanism to reveal the externalities involved in budget decisions and on the binding nature of the targets. In contrast to the hierarchical structure created by delegation, the contract approach relies on a more equal distribution of strategic powers in the executive. A prime example for this approach is the Danish budget process which, since 1982, starts with negotiations among the cabinet members fixing spending limits for each spending department. Often, these spending limits are derived from medium-term fiscal programs or the coalition agreement among the ruling parties. In Ireland, for example, coalition agreements since 1989 included medium term fiscal strategies to reduce the public debt, which provided the background to the annual negotiations over budget targets.

The finance ministry's role under this approach is to evaluate the consistency of the individual departments' spending plans with these limits. As in the Netherlands, for example, the finance minister usually has an information advantage over the spending ministers in the budget negotiations, but no extra strategic powers. Conflict resolution involves senior cabinet committees and often the leaders of the coalition parties in the legislature.

At the legislative stage, the contract approach places less weight on the executive's role as an agenda setter and more weight on the role of the legislature monitoring the faithful implementation of the fiscal targets. Institutionally, this means that the contract approach relies less on controlling parliamentary amendments and more on the legislature's ability to monitor the fiscal performance of the executive. One important element of this is the legislature's right to request



information from the executive. It can be improved by setting up committees whose authorities reflect the authorities of the spending departments, and by giving committees a formal right to request information from the executive and to call witnesses from the executive to testify before committees. The Danish parliament, for example, has all three of these rights, while the German parliament conforms only to the first provision and the British parliament to neither one.

At the implementation stage, the contract approach resembles the delegation approach in emphasizing the monitoring and control powers of the finance minister.

### **Empirical Evidence**

A fast-growing literature starting with von Hagen (1992) has presented empirical evidence supporting the hypothesis that centralization of the budget process leads to smaller government deficits and debts. Von Hagen (1992) provided evidence from 12 European Union countries showing a significant negative association between the centralization of the budget process and general government deficits and debts relative to GDP. Von Hagen and Harden (1994b) extend and broaden the analysis and confirm the hypothesis that centralization of the budget process is associated with smaller deficits and debts. De Haan and Sturm (1994) again work with European Union data and show that the hypothesis holds up empirically even when a number of political factors such as the composition and stability of governments is controlled for. Hallerberg and von Hagen (1998, 1999) use panel data analysis for 15 EU countries to show that centralization of the budget process goes along with smaller annual budget deficits even when controlling for a number of economic determinants of the budget deficit and other political variables.

Turning to other geographical areas, Stein et al. (1999) use panel data analysis from Latin American countries to show that centralization of the budget process goes along with lower central government deficits. Jones et al. (1999) analyze a panel of annual budget deficits of Argentine provinces and confirm the same hypothesis. Lao-Araya (1997) provides similar results for 11 Asian countries. Strauch (1998) uses data from the 50 US state governments to show that centralization significantly reduces annual budget deficits. Taking a different methodological approach, the country

studies of Stienlet (2000), Molander (2000), and Strauch and von Hagen (1999) point to the importance of centralization in achieving (or, in the case of Germany losing) fiscal discipline.

To summarize, the hypothesis that centralization of the budget process leads to lower government deficits and debts can be considered as empirically well established today. It has been confirmed in very different geographical and political settings. Evidence showing that centralization reduces the size of government, as it should in theory, however, is still very scant, because of the difficulties with constructing the appropriate data sets and the difficulty of empirically modeling the fiscal preferences of voters in cross-country studies. Only Strauch (1998) shows that this holds among state governments in the U.S. Nevertheless, one can conclude that centralization of the budget process is an important and effective way to mitigate the common pool problem of public budgeting.

### **Institutional Design of the Budget Process**

While the delegation approach relies on hierarchical structures within the executive and between the executive and the legislature, the contract approach builds on a more even distribution of authorities in government. In democratic settings, hierarchical structures typically prevail within political parties, while relations between parties are more even. This suggests that the key to the institutional choice between the two approaches lies in the number of parties in government.

### ***Parliamentary Systems***

In parliamentary systems, the delegation is the proper approach to centralization for single-party governments, while contracts is the proper approach for multi-party coalition governments (Hallerberg and von Hagen 1998). There are two reasons behind this conjecture. First, members of the same political party are more likely to have similar political views regarding the basic spending priorities than members of different political parties. A spending minister in a one-party government can, therefore, be fairly sure that the finance minister holds more or less the same spending preferences as he does; disagreement with the finance minister will be mainly a result of the common pool problem, i.e., the perceived cost of

distributive policies. In a coalition government, in contrast, cabinet members are likely to have more diverging views regarding the distribution of government spending over different groups of recipients. Agreement on a budget, therefore, involves a compromise between the coalition partners.

For a coalition government, delegation of strategic powers to the finance minister would create a new principal agent problem. A strong finance minister might abuse his powers and unduly promote the political interests of his own party. The same principal agent problem does not arise in the contracts approach, since the contracts are negotiated by all cabinet members. Thus, governments formed by two or more parties are more likely to opt for the contracts approach.

Second, delegation and contracts rely on different enforcement mechanisms of the budget agreement. In one-party governments, the ultimate punishment for a spending minister reneging on the budget agreement is dismissal from office. Such punishment is heavy for the individual minister who overspends, but generally light for the government as a whole. It can be used, because the prime minister is typically the strongest cabinet member in one-party governments and has the authority to select and replace cabinet members. In coalition governments, in contrast, punishments cannot be directed easily to defecting ministers. For the prime minister, the distribution of portfolios is given by the coalition agreement. Therefore, the prime minister cannot easily dismiss intransigent spending ministers from parties other than his own, since that would be regarded as an intrusion into the internal party affairs of his coalition partners.

The most important punishment mechanism in coalition governments is the threat of breaking up the coalition, if a spending minister reneges on the budget agreement. This punishment is heavy for the entire coalition, as it leads potentially to the death of the government rather than the dismissal of a single individual. The point is illustrated by the fact that fiscal targets are often part of the coalition agreement. The credibility of this enforcement mechanism hinges on two important factors. The first is the existence of alternative coalition partners in parliament. If other, potential partners exist with whom the aggrieved party can form a coalition, the threat to leave the coalition is clearly more

credible than if no alternative coalition partner is available. The second factor is the expected response of the voters, as a coalition may be broken up with the anticipation of new elections.

The different enforcement mechanisms also explain the different relations between the executive and the legislature in the legislative phase of the budget process. Single-party governments typically arise in two-party settings such as pre-1994 New Zealand, the U.K., or the U.S., where each party is large and party discipline is low. While the ruling party enjoys a majority in parliament, the main concern of the legislative stage is to limit the scope of defections from the budget proposals by individual members of parliament who wish to divert government funds to their electoral districts. Multi-party coalitions, in contrast, typically arise in settings where parties are small, relatively homogeneous and party discipline is strong. In that situation, defections from the budget agreement are a weaker concern, but each party involved in the coalition will want to watch carefully that the executive sticks to the coalition agreement. The delegation approach, therefore, typically makes the executive a much stronger agenda setter in parliament than the contract approach, while the contract approach lends more monitoring powers to the legislature than the former.

Finally, the commitment to fiscal targets embedded in the contract approach is not credible for one-party governments. To see this, consider a single-party government with a weak prime minister and a weak finance minister. Assume that this government announced a set of fiscal targets at the outset of the budget process and that some spending ministers renege on the agreement during the implementation phase. Other cabinet members cannot credibly threaten the defectors with dissolving the government, since they would punish themselves. Absent a credible threat, the entire cabinet would just walk away from the initial agreement.

To summarize, the contract approach is more likely to be found in countries where coalition governments are the norm, while the delegation approach is more likely to be found in

countries where the government is typically formed by a single party.<sup>9</sup>

Electoral institutions strongly influence the number of parties in government. Intuitively, if there are fewer parties, there is a higher chance that one party can win an absolute majority, and an absolute majority is a virtual certainty in two-party systems. Several studies indicate that the number of parties in a given system is strongly and positively correlated with district magnitude (Duverger 1954; Taagepera and Shugart 1989, 1993). Plurality rule encourages the emergence of two-party systems, and they are consequently most likely to have one-party majority governments. Proportional representation allows for more variation in district magnitude, but is consistently characterized by multi-party coalition governments (Lijphart 1984, 1994; Taagepera and Shugart 1989, 1993).

Regarding the institutional choice for centralizing the budget process, the correlation between electoral institutions and the number of parties in governments then suggests, that countries with proportional representation should be more likely to adopt a contract approach, while countries with plurality rule should opt for the delegation approach, if they adopt centralizing institutions at all. Hallerberg and von Hagen (1998) show that this hypothesis is confirmed among the European Union states.

### ***Presidential Systems***

Presidential systems of government are different from parliamentary systems in that the president does not rely directly on the legislature for his position as leader of the executive. Voters can, and often do, support a president from one party while denying his party a majority in the legislature. In the U.S., for example, presidents faced an opposition-

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<sup>9</sup> This conclusion is qualified by the observation, made above, that the effectiveness of the contract approach depends on the availability of alternative coalition partners. German governments of the past 30 years were coalitions between a large and a small party with no alternative partner available for either one. Germany's budget process, which build on delegation, therefore fits this environment. When the German government was formed by the two large parties CDU and SPD in the late 1960s, elements of a contract approach were introduced to secure a high degree of fiscal discipline.

controlled House or Senate in 24 of the 30 years between 1969 and 1998. In Latin American and Caribbean countries during the period 1990-95, half of the twenty countries with presidential systems had presidents facing opposition-controlled lower houses (Stein et al. 1999). Coordination of budgetary decisions between the executive and parliament becomes obviously more difficult, when the president and the majority in parliament come from two different parties. Inman and Fitts (1990) show that historically US federal government deficits were significantly lower in times when the president faced a majority from his own party in congress.

The role of the executive in the budget process is not much different in presidential systems. Since the president typically appoints the members of his administration—with confirmation by the legislature where applicable—the structure of the administration lends itself more to a delegation approach than to a contract approach to centralizing the budget process. The relationship between the president and the legislature, however, is often more difficult, since the two are conceived to be more equal political institutions than in parliamentary forms of governments.

Centralization in presidential systems then must emphasize two institutional dimensions. One is the internal organization of the legislature. Here, centralization can be achieved by creating a strong leadership in parliament, through an elevated position of the speaker and through a hierarchical committee structure. For example, the reforms of the budget process through the Budget Enforcement Act passed under the Bush administration in the 1990s reformed congressional procedures to protect decisions about budgetary parameters reached at the budget summit between the President and Congress against later modifications.<sup>10</sup>

The other dimension regards the relation between the executive and the legislature. The more the constitution puts the two institutions on an equal footing, the more budget agreements between the two must rely on the contract

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<sup>10</sup> It is interesting to note in this context that the former attempt of the U.S. to reduce budget deficits under the Gramm Rudman Hollings Act failed, as the majority Congress decided to ignore the self-imposed deficit targets specified in that Act. This is consistent with our conjecture that a contracts approach is inadequate for single-party majority settings.

approach. Inman (1993) emphasizes the importance of the president's command over sufficient resources to build congressional coalitions and veto power to discipline the legislature.

### ***Centralization and Flexibility of Budgetary Policies***

Centralization of the budget process serves to mitigate excessive spending and deficits resulting from the common pool problem of public budgeting. Because centralization emphasizes strict adherence to fiscal targets, one might suspect that centralization implies rigidity of budgetary policies, i.e., it reduces the scope for reaction to unforeseen events during a fiscal year. If so, there could be a trade-off between achieving a higher degree of fiscal discipline and achieving a desirable degree of macroeconomic stabilization.

However, flexibility to react to unforeseen events can be achieved at the implementation stage of the budget process in a number of different ways without working against centralization. For example, the Swedish government adopted a budget process in the early 1990s that allows spending departments to charge expenditures against future budgets or to transfer unused appropriations to the next year. Both transfers are possible, however, only for a limited number of years. Since the charges and transfers must be budgeted in the following year, the provision combines flexibility with transparency and gives both the legislature and the finance minister the ability to control the flow of expenditures.

An alternative way to achieve flexibility is the creation of a "rainy day fund," i.e., an unspecified appropriation that can be used for emergencies. An example is the (Contingency) Reserve included annually in the U.K. budget (von Hagen and Harden 1994b). The purpose of the Reserve, which amounts to 2 to 4 percent of the budget total, is to deal with unanticipated expenditures without overrunning the aggregate targets imposed on the spending departments. According to a rule introduced in 1976, a refusal by the finance minister to charge an expenditure against the Reserve could only be overruled by the entire cabinet; an allocation made from the Reserve does not increase a spending department's baseline allocation for the subsequent budget planning processes. Again, the critical point is to budget the fund annually and to submit spending

out of this fund to the same rules of expenditure management as ordinary spending.

To see whether delegation and contracts tend to reduce a government's capacity to react appropriately, Hallerberg and von Hagen (1999) estimate the cyclical elasticity of government deficits in the 15 European Union states. Based on panel data, they find that centralization per se does not change the cyclical elasticity. In fact, countries with a strong finance minister are characterized by a larger cyclical elasticity than both countries with centralization achieved through contracts and countries with rather fragmented budget processes. An intuitive interpretation is that a strong finance minister can react more quickly to economic downturns and upswings than the spending ministers. Importantly, there is no indication of a trade-off between macroeconomic stabilization and mitigating excessive spending in the design of a budget process.

### **Institutional Reform**

This paper has argued that the political economy of public finances can be interpreted in terms of a principal-agent relationship between voters (the political principals) and policy makers (the agents) and the common pool problem of public budgeting. The theory and empirical research reviewed in this paper shows that the institutional design of the principal agent relationship and of the budget process have important consequences for the spending performance of governments, both in terms of the level of spending, the composition of spending, and the levels of deficits and debts. This suggests that appropriate institutional design can help mitigate problems of waste, divergences between public preferences and what the public sector delivers, and fiscal profligacy.

This claim rests on the basic conjecture that institutions frame the decisions made within them, i.e., that a given group of individuals facing a given problem makes predictably different decisions under different institutional arrangements. This requires that institutions effectively constrain the choices of these individuals. The obvious objection is, that these individuals, and policy makers in particular, would rid themselves of the institutions and ignore or change the rules if they feel constraint by them. After all, institutions are man-made and subject to change. Without a satisfactory answer to



this objection, the power of institutions and the promises of institutional reform must remain in doubt.

Such an answer has three points. First, the individuals involved in decisions over public finances do not always have the authority themselves to change the rules. The relevant institutions may be cast in constitutional law or historical traditions that are hard to modify. Second, the claim that institutions impose constraints on individual decisions does not imply that these individuals will want to change the institutions. They will only want to do that, if they can be reasonably sure that they can reach more desirable outcomes in the modified environment. Since complex political and economic decisions made in groups of people are prone to instability and irrationality, an environment with less rules is often much less desirable than an environment with rules even if their constraints are being felt. Third, institutional rules in the budget context serve to coordinate individual choices. Specifically, they give individual participants assurance that excessive budget demands by other participants will not be successful, and thus make it easier for the former to agree to demand less himself. Again, the implication is that abolishing institutional constraints is not necessarily desirable.

Nevertheless, one should not interpret the theory and evidence outlined above as saying that a change in the letter of the law is an effective means to reduce rents, excessive spending, and deficits. Precisely because changing institutions takes some extraordinary effort, policy makers are unlikely to do that unless they are aware of an acute fiscal problem. But if that is the case, how can we prove that the institutional change contributed to the fiscal correction, if the latter was what policy makers wanted anyway?

A first point is that institutional changes are very visible to the public and the markets and, therefore provide an important signaling function. Governments showing the resolve for a more disciplined fiscal policy by reforming pertinent institutions will find it easier to convince the public and financial markets of their good intentions. To the extent that this reduces opposition against fiscal reforms and cutbacks, the necessary policy changes are made easier.

A second point is that the awareness of a fiscal problem may not be permanent. As other problems arise and the deficit

returns to normal levels, the attention to the problems of waste, excessive spending and deficits is reduced and the tendency for overspending and excessive deficits rises again. At that point, having better institutions in place than before can be an important mechanism to preserve the collective memory of the previous difficulties.

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# 2

## PERFORMANCE-BASED BUDGETING REFORM: PROGRESS, PROBLEMS AND POINTERS

*Matthew Andrews*

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### Introduction

The last decade has seen many governments attempting to establish a results-oriented (or performance-based) budgeting approach. The emphasis on results or performance in the budget process reflects a new belief that public sector accountability should focus on what government does with the money it spends, rather than just the process of controlling such expenditure (Osborne and Gaebler 1992). In the parlance of new institutionalism, results-oriented or performance-based budgeting reforms introduce rules and norms that make it culturally appropriate for, and/or induce (through positive and negative incentives), public representatives and managers to concentrate on outcomes and outputs rather than inputs and procedures.<sup>1</sup> A valid question at this juncture is: How well have reforms worked in introducing a results orientation into budgeting processes (with representatives and managers being accountable for results) and where should reformers be concentrating to improve such effects?

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<sup>1</sup> The two institutional effects are reflective of the different theoretical perspectives on institutionalism. The sociological branch (and elements of the political science wing) argue that institutions (especially norms) shape cultures and make certain kinds of behavior appropriate, while the economics approach holds that institutions shape transactions costs and incentives in processes of decision-making and interaction (see Andrews 2002).

The current paper examines this question in light of recent experience with budget reforms around the globe. It begins by providing examples of governments moving (either gradually or aggressively) towards a performance-based budgeting approach, and a short explanation of the new kind of accountability patterns expected to arise when performance-based budgeting is in place. It then takes a critical look at reform adoption in a setting considered 'best practice' in the developing world, the South African national government. The Department of Health's budget is used as a representative example of the general path of reform progression in this setting. In looking at the budget's structure, it is apparent that the government has gradually moved from a purely line-itemized budget to a medium-term program budget and finally to a budget with performance-based elements in it—a progression which mirrors developments in other governments as well (including developed and developing countries, sub-national and national governments).

The core question in this and other settings is, "Given the reforms over the past period, how close is the government to developing a true performance-based accountability system?" (Or, as asked above, How well have reforms worked in introducing a results orientation into budgeting processes?). Considering the current state of affairs in countries like South Africa (as reflected in their budget documents), the answer is less than sanguine, for three reasons:

- First, even though performance targets are now being developed, they are generally kept separate from the actual budget (in South Africa as well as countries like Malaysia and Singapore, and most United States states), which minimizes their legitimacy and entrenches a 'specialization' and 'separation' culture common in governments (in which planners, development experts and performance-minded evaluators do certain tasks and accountants and budgeters do other tasks, never to communicate over their professional boundaries).
- Second, performance information in the South African case suffers weaknesses commonly alluded to in literature related to other settings—outputs are confused with inputs and outcomes remain unconsidered; targets appear to have been technocratically identified and thus

lack 'real-world' value; targets are poorly detailed, making actual measurement unlikely; it is unclear exactly how the targets will be reached (with no connection between outputs and activities in some cases and arguments as to why 'poor' service could lead to target achievement in others). This information fails to create a results-oriented bottom-line, leaving political representatives and managers no reason or incentive to meet such.

- Third, and possibly most important, is the lack of a relational design in the budget itself. Even where effective targets are provided, the budgets in South Africa and many other nations moving towards this kind of system commonly fail to specify who should be accountable for these results (and who should hold them accountable, and how). Very little thought appears to have been given to the process of institutionalizing political or managerial accountability for the targets identified in budgets. Where results-oriented mechanisms create accountability relationships in the personnel system (such as where chief executives are appointed on the basis of performance contracts), they are typically disconnected from the results-oriented elements in the budgeting process.

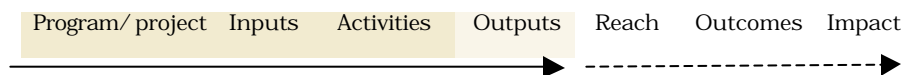
The final section of the paper provides some pointers for reform progress in the future, building on the marked improvements made in countries like South Africa and addressing some of the problems still observed. The discussion centers on a proposed budget structure that links fiscal allocations to clearly-defined and measurable performance targets at the project level and identifies those accountable for outputs (managers) and outcomes (political representatives)—all in one document. The proposed approach is seen as a further progression beyond the current reform position towards the entrenchment of results-oriented accountability in governments (with a series of bottom-lines that have meaning, and that can be evaluated and enforced).

## Performance-based Budgeting Reform: Introduction

Results-oriented or performance-based budgeting (PBB) has been gradually adopted as a key public sector reform in developing and developed countries alike. Examples include Australia and Malaysia (Xavier 1998), OECD countries generally (Shand 1998), commonwealth countries (Kaul 1997) and Singapore (Jones 1998). The reform is adopted so as to transform public budgeting systems from an input and output orientation to an output and outcome orientation, introducing a new results-oriented accountability into public organizations. It does this by changing the rules of budgeting—influencing both budgetary processes and budgetary roles. “The use of performance measurement in budgeting means changes in governments’ operations, personnel, structures, and even cultures” (Wang 2000, 113). These changes are designed to alter how budgets are developed, who does what in the budgetary process, and how the budget influences those allocating or receiving money through it. Through such influences, the reforms are argued to focus public officials on results and performance, with new results-oriented accountability relationships and incentives. Ammons (2002, 344) asserts that this “accountability argument for performance measurement is powerful and persuasive. How can government be truly accountable if it only tracks the dollars moving through its system and barely mentions the services rendered through the use of these resources?”

The new accountability relationships entrenched in PBB link performance of political representatives and managers to budget allocations, as shown in the results chain below (Shah 2000).

**Figure 1. The Results Chain, Connecting Program and Projects to Outputs to Outcomes**



In terms of the figure, results-oriented or performance-based budgeting could be seen to focus governments on the

right-hand side of the results chain. Concern for results requires representatives to consider what kinds of outcomes and impacts government will target as it spends citizens' money. A political results orientation thus involves the definition of specific policy goals or objectives, often referred to as outcomes. An outcome example, related to education provision, could relate to an increase in the pass rate of school-leaving students (with the impact being improved quality of the workforce and economic growth).<sup>2</sup> The budget is then used as a vehicle to allocate money on the basis of such an outcome goal, with representatives and administrators determining which kinds of activities, inputs and projects are required to achieve the goal, and what kind of project-level performance targets (related to actual production) would most likely facilitate such achievement. These performance targets are communicated in terms of outputs, and facilitate results measurement and evaluation towards the end of the budgetary cycle. Output examples could relate to the number of classes taught or other areas of production. At the end of the budgetary cycle the departmental manager would be responsible for showing if outputs were met or not.

By introducing such a results-oriented approach, PBB links the money coming into government with the results of government, via implicit and explicit, performance-based contracts or agreements. These contracts or agreements show what citizens can expect from their political representatives (the outcome goals as communicated through plans), how government is going to get there (the programs and projects and activities it intends to fund), how much it will cost (the inputs) and what administrative entities are expected to produce with their funds (the output goals). Such information is the basis of new accountability relationships, as reflected in budget documents, which influence the incentives budgeters face, in particular motivating legislators and executives and

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<sup>2</sup> The definitions of input, output and outcome related to follow common approaches in Hatry (1977), Nayer-Stone (1999), Weist and Kerr (1999) and Schaeffer (2000). The same definitions inform the approach taken in governments like the State of Virginia (Virginia Department of Planning and Budget 2002). They are explored in more detail later in the paper.

program and project managers to be more results and performance-oriented.

PBB is meant to influence allocations behavior, such that new allocations are based on results. Objective information on output achievement and implications for outcomes improves planning and decision-making at the legislative and executive levels, and facilitates accountability of representatives to civil society regarding how representatives decide to allocate resources (Broom and McGuire 1995, Martin 1997). Civil society can observe how the process towards outcomes is progressing, who is to blame for failures along the way (whether the problem is slow output production or poor planning) and how political representatives treat different levels of performance (whether rewards and redress are imposed, and whether funds are allocated for improved performance). In short, PBB institutions involve 'contractual' commitments that bind politicians to communicated outcomes and the provision of information about those outcomes and their generation, in so doing motivating a results oriented accountability for executive and legislative decision-makers. This kind of results-oriented political accountability demands that representatives:

- Set outcome goals,
- Link allocations to these goals (ensuring a logical sequence from outputs to outcomes in programs and projects funded),
- Have the information to enforce output targets,
- Have the incentive to actually enforce output targets, and
- Are called to account for both the amount of money they spend and their results (how well their administration produces outputs and realizes outcomes achievements).

PBB is also meant to influence how managers view their roles in the budget process (and how they manage). In complete form, PBB gives managers significant flexibility in overseeing their resources while holding them accountable for program results and promising reward or redress on the strength of such results. Formal methods of reward include increased transfer authority, increased contract authority, less budget oversight, gainsharing, or a pay bonus for key staff. The promise of reward or redress also extends to potential civil

society responses to strong or weak managers whose performances are now open to public scrutiny. These reward and redress options are meant to bind managers to promises of performance in the budget, and to provide an incentive for managers to change their approach to management, adopt new methods of providing services, and become more results-oriented and efficient. This kind of results-oriented managerial accountability demands that managers:

- Set targets (for outputs and efficiency),
- Understand that money is linked to targets, and
- Are called to account for both the amount of money they spend and their performance in terms of targets.

### **Performance-based Budgeting Reform: Progress**

As argued, the potential for a new accountability approach has led many countries to attempt to adopt results-oriented or performance-based budgeting in the last decade. South Africa's progress towards results-oriented or performance-based budgeting is representative of 'best practice' in the developing world, with the increased emphasis (through legislation like the 1999 Public Finance Management Act or PFMA) on "outputs alongside spending plans" providing "a basis for assessing the value for money of spending and its alignment with government objectives" (National Treasury 2002, 2).<sup>3</sup> The progress is evident when examining changes to the structure of the budget document and the kind of accountability relationships developed through such. This structure has progressed from reflecting traditional line-items to showing programs and sub-programs and performance targets. This progression has been fairly gradual (phased in over five years to date), with the National Treasury choosing to adopt an incremental reform approach similar to that of Singapore (Jones 1998, Schick 1998).

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<sup>3</sup> World Bank (1998) presents the South African MTEF-type reforms as best practice. The National Treasury shows, in legislation like the PFMA, that MTEF is part of a general move towards a results oriented accountability structure in the budget process.



**A Starting Point: The Traditional Line-item Format**

As in many developing and developed countries, the South African national government traditionally structured its budgets to show money spent by line item. Table 1 is an example of this, for the national Department of Health's 2001/02 appropriations.

The line-item budget entrenches a process-oriented accountability in the public sector, focusing administrators on the inputs to which money is allocated (such as 'equipment')

**Table 1: Department of Health Budget Main Appropriations for 2001/02, by line item**

<i>Expenditure item</i>	<i>Appropriation</i>
Personnel	152,000
Administrative	78,207
Inventories	100,203
Equipment	18,395
Land and buildings	16,200
Professional and special services	69,628
Transfer payments	6,176,736
<b>Total Expenditure</b>	<b>6,611,369</b>

*Source:* Adapted from National Treasury (2002).

and the process of disbursement. This control emphasis developed in the early part of the century in tandem with theories of bureaucratic government and as a response to problems of financial irregularity in government, as explained by Mikesell (1995, 165):

“Traditional budgets emphasize control of fund use and have not been structured to facilitate resource-allocation decisions. That emphasis exists largely because public budgeting emerged in a period where concern was, purely and simply, prevention of theft...Modern governments have moved beyond that stage, but too much of budgeting remains in that old orientation.”

As mentioned by Mikesell, while the line item approach facilitates control, it thwarts the development of a results-oriented accountability, in which the following kinds of questions are relevant: What is government doing with the money it receives? What are the end goals of government interventions? Is government reaching its end goals, or at least moving towards achievement? How much money is government spending, and is it spending more than is needed to achieve its goals? Who is responsible for spending behavior and outcomes? Such questions increasingly inform new accountability conceptions in the public sector. The first three questions relate to how money is being translated into services, an issue which the line item budget fails to address. It is impossible, for example, for citizens to see how much money the government is spending on HIV/AIDS prevention and treatment (a key national policy area) or what kinds of new facilities are being built to facilitate health care service expansion. The fourth question relates to spending efficiency, and again the line item budget is found wanting—providing no

means of assessing 'how well' money is spent. The fifth question relates to the 'who' of a basic accountability structure: 'Who' is held accountable for expenditures in the Health Department? The line item budget again provides no information to facilitate effective accountability.

### **The Program Budget: An Advancement**

A generally accepted first step beyond the line item budget involves identifying 'who' is spending money, and 'on what.' The move to program budgeting in the American states reflected such a step, as did the 1990s move towards reporting budgets in terms of spending agencies and programs in countries like Malaysia, Singapore and Australia. The focus of program budgeting was (and is) planning and spending identification, and the budget is seen as a statement of policy—representing the combined and goal directed activities of the many interdependent parts of complex public organizations. Through it one can see who is spending public resources (the department or agency given funds) and on what they are spending the money (the programs to which resources are allocated).

In the latter half of the 1990s, with the introduction of the Medium Term Expenditure Framework (MTEF) reforms, the South African government began restructuring its budget format to show the programs its various departments were allocating funds towards. Table 2 provides an example of this kind of reporting, over the medium term.

The budget in table 2 constitutes an improvement from the line-item budget in that it allows the broad identification of how government is spending its money (over a medium term period). In the case of the South African Department of Health there are three large programs identified, Administration, Strategic Health and Health Service Delivery. Within these large programs there are various sub-programmes identified. In the Strategic Health programme, one can identify six sub-programmes (or projects/activity areas) where the government is spending money on HIV/AIDS prevention or treatment: HIV/AIDS (NGOs), Government Aids Action Plan (GAAP) (NGOs), South African National AIDS Council, HIV/AIDS Conditional Grant, Love Life and SA AIDS Vaccine Initiative. In this budget structure one can calculate the amount spent on HIV/AIDS prevention and eradication as a percentage of the

**Table 2. The 2001/2002 Health Department Budget Estimates per program<sup>4</sup>**

<b>Programmes/Sub programme</b>	<b>Revised appropriation 2001/02</b>	<b>2002/03 estimated appropriation</b>	<b>2003/04 estimated appropriation</b>
<b>Administration</b>	-	-	-
<i>Policy analysis</i>	-	-	-
<b>Strategic Health</b>	853,426	996,765	1,113,827
<i>District Health Systems</i>			
Financial assistance to NGOs	-	-	-
<i>Health Monitoring and Evaluation</i>			
Medical Research Council	127,221	145,498	152,270
Health Systems Trust	2,000	2,000	2,000
South African Institute for Medical Research	287	287	287
<i>Maternal, Child and Women's Health</i>			
Primary School Nutrition	582,411	582,411	582,411
Poverty Relief	10,000	12,000	15,000
South African Vaccine Producers	4,052	-	-
Financial Assistance to NGOs	100	310	350
<i>Medicines Regulatory Affairs</i>			
Medicines Control Council	-	-	-
<i>Mental Health and Substance Abuse</i>			
Financial Assistance to NGOs	1,000	1,377	1,410
<i>HIV/Aids and Tuberculosis</i>			
South African Tuberculosis Association	25	-	-
HIV/AIDS (NGOs)	12,190	50,500	43,250
Government Aids Action Plan (GAAP) (NGOs)	22,357	-	-
South African National AIDS Council	10,000	10,000	15,000
HIV/AIDS Conditional Grant	54,198	157,209	266,576
Love Life	25,000	25,000	25,000
Tuberculosis— Financial Assistance to NGOs	-	2,500	2,600
SA AIDS Vaccine Initiative	-	5,000	5,000
<i>Medical Schemes</i>			
Medical Schemes Council	2,585	2,673	2,673
<b>Health Service Delivery</b>	5,370,528	5,708,318	6,019,155
<i>Disease Prevention and Control</i>			
Council for the Blind	350	400	400
National Health Laboratory Services	260	394	407
Medical Legal	10,000	35,000	52,000
<i>Hospital Services</i>			
Hospital Rehabilitation	500,000	520,000	543,400

<sup>4</sup> Spelling of the word 'program' is used when not directly referring to the South African case. When directly referring to the South African case the spelling used is 'programme', reflecting British usage.

2.12 — Performance-base Budgeting Reform: Progress, Problems and Pointers

<b>Programmes/Sub programme</b>	<b>Revised appropriation 2001/02</b>	<b>2002/03 estimated appropriation</b>	<b>2003/04 estimated appropriation</b>
Hospital Construction—Durban Academic Hospital	103,800	-	-
Hospital Construction—Umtata Hospital	-	-	-
Hospital Construction—Pretoria Academic Hospital	50,000	70,000	90,000
National Tertiary Services	3,459,594	3,666,842	3,892,849
Health Professionals Training and Development	1,234,090	1,279,248	1,299,475
Hospital Management Improvement Grant	-	124,000	130,000
<i>Non-personal Health Services</i>			
Compensation Commissioner	11,434	11,434	9,624
Environmental Health (NGOs)	-	-	-
Health Promotion (NGOs)	1,000	1,000	1,000
<b>Total</b>	<b>6,223,954</b>	<b>6,705,083</b>	<b>7,132,982</b>

Source: Adapted from National Treasury (2002).

entire health budget (to assess the importance of the policy area) as 5 percent. This calculation was impossible in the line-item budget and certainly enhances budgetary accountability. In the Health Service Delivery programme one can identify three more specific project areas, Disease Prevention and Control, Hospital Services and Non-personal Health Services. Specific activities within each sub-programme allow an observer even greater insight into what the Department is doing with its allocation—in the area of Hospital Services, for example, the Department is (among other things) constructing hospitals in Durban and Pretoria.

This kind of budget shows significant progress towards the achievement of results-oriented accountability in the public sector (the goal driving much public sector reform). It suggests that the Department has conceptualized its operations in terms of what it does, rather than what inputs it uses (as is reflected in the line item budget). This kind of conceptualization forms the basis of linking appropriations with performance in programs/projects/activity areas. The budget shows, for example, that 5,000 is allocated towards the construction of the Pretoria Academic Hospital in the 2001/02 year, which then allows political representatives and citizens to ask the question, “What is being done on the construction site with that money during that year?” In answering the question, one has the makings of a performance-based

accountability agreement and the rudiments of an incentive system based on results rather than process and input management (as has traditionally been the case with the line item budget).

### **Adding a Results/Performance Focus: Further Advancement**

Following the example of countries like Australia and the general progression towards a results-oriented, performance-based form of accountability, the South African National Treasury most recently added a third kind of table indicating the 'key outputs, indicators and targets' related to each programme area in its Estimates of National Expenditure. In the year 2001/02, departments were required to identify "targets for service delivery in main output areas" (National Treasury 2002, 1). This is described as "an important step towards fulfilling the requirement in terms of the Public Finance Management Act (1 of 1999) (PFMA) that measurable objectives for main spending programmes be submitted to Parliament." The performance measures are due to be formalized in the 2003 budget and are presented as a separate table in the 2001/02 Estimates of National Expenditure to show the reform progression. Table 3 presents the outputs, indicators and targets as they relate to the Strategic Health programme.

Some governments (including Malaysia and most of the American states) are at the point of budget development suggested in table 3—attempting to introduce measurable goals that could be used to focus managerial and political behavior on results in already identified programs, sub-programs and activity areas. In these cases (as in the table) it is apparent that officials are being called to think about more than just the kinds of programs to which money is being allocated, but rather they are being called to conceptualize the kinds of performance these programs should achieve.

In identifying outputs, output measures or indicators and targets associated with what the South African Treasury calls 'subprogrammes,' managers are starting to provide more information that facilitates results-oriented accountability. As part of the HIV/AIDS prevention initiative, for example, the government has identified 'condoms distributed' as an important indicator of performance, and has committed to

provide '472 million annually by 2004/05' to citizens. When such commitments are open to evaluation and enforcement, they constitute effective levers for the development of results-oriented incentives and accountability mechanisms in the public sector. Table 3 thus provides detail to the budget that further aids the reform progression towards a results-oriented or performance-based accountability. The progress is marked, when one considers how much more information is provided in the table than was available in Table 1 (and thus in traditional line-item budgets).

### **Performance-based Budgeting Reform: Problems**

Governments around the world typically find their reforms lying somewhere along the line of progression stretching from conventional line-item budgets, program budgets and budgets in which performance information is included. The South African budget reform progress, as evidenced in changes (or additions) to budget publications (such as the Estimates of National Expenditure), has advanced to a point where the government now has all three types of budgets reported in one place, a line-item, program-type and performance-type budget (National Treasury 2002). This is a similar position to that of many American states and countries like Malaysia, where traditional and new budget approaches exist side-by-side (OPPAGA 1997, Xavier 1998). Problems still exist in such situations, however, which limit the potential of such mixed-budgeting systems to effect the achievement of a true performance-based accountability system.

There are three main areas in which reforms, as generally adopted in South Africa and other similar settings, are still problematic: 1) Budgets still do not provide a clear link between performance and allocation, limiting any 'results-oriented' accountability connections in budgets, 2) Performance measures are especially problematic and do not constitute an effective basis for results identification, measurement and management, and 3) The budgets still fail to identify 'who' is responsible for performance and resource use, making it difficult to know 'who' is accountable.

**Table 3. Key Outputs, Indicators and Targets Related to Strategic Health Allocations**

<b>Strategic Health Programmes</b>			
<b>Subprogramme</b>	<b>Output</b>	<b>Output Measure/ Indicator</b>	<b>Target</b>
District Health Systems	Improved equity in access to primary health care services	Proportion of primary health care facilities that render the full package of essential services	Full implementation by 2003/04
	Fully functional clinics and community health centers	Number of existing and new facilities which have water, sanitation, electricity and roads	All facilities to have services by 2003/04
Health Monitoring and Evaluation	Primary health care delivery by local government regulated by service agreements	Number of municipalities rendering comprehensive health services and with services agreements with provinces	Service agreements to be signed by September 2002
	Full implementation of district health information system	Proportion of districts implementing the health information system	100% by 2004/05
Maternal, Child and Women's Health	Improved immunization coverage	Number of cases of indigenous measles	Indigenous measles eliminated
		Immunization coverage of 1-year-olds	90% coverage of 1-year-olds by 2004 (minimum 80% in each province)
	Improved child health	Schools visited for routine school vaccination	90% coverage by 2004
		Provinces implement the National Plan of Action for Children and Integrated Management of Childhood Illnesses Strategy	Implementation in all 9 provinces
		Prevalence of wasting and stunting among children, and being underweight for their age among children under 6	Reduce prevalence of wasting from 2.6% to 1%, stunting from 23% to 15%, and underweight children from 9% to 5% by 2004
	Improved youth and adolescent health	Guidelines for youth and adolescent health published and distributed	Guidelines implemented in all provinces
		Teenage pregnancy rate	Reduce teenage pregnancies
		Substance abuse rates amongst adolescents	Reduce substance abuse
	Improved women's health and reduced maternal mortality	Number of districts that have implemented the national programme for cervical and breast cancer awareness and screening	Programme implemented in all districts by 2004



2.16 — Performance-base Budgeting Reform: Progress, Problems and Pointers

<b>Subprogramme</b>	<b>Output</b>	<b>Output Measure/ Indicator</b>	<b>Target</b>
HIV/AIDS and Tuberculosis	Improved strategies to deal with the HIV/AIDS epidemic	Number of clinics that have implemented antenatal clinic protocols	Antenatal clinic protocols implemented by all facilities by 2004
		Number of districts with inter-sectoral plans to tackle the causes of poverty and poor nutrition	All districts to implement inter-sectoral action
		Legislation to ensure food fortification	Legislation in place by 2002
	Strengthen the TB programme	Incidence of HIV	Leveling off of epidemic with fall in number of infected under 20-year-olds
		Cases of sexually transmitted infections effectively treated in public and private sectors	50% of cases treated effectively by 2001
		Condoms distributed	472 million annually by 2004/05
		Development of packages of affordable care and support for infected and affected persons	Packages available nationally
Cure rate	85% in new smear positive cases		
Smear conversion rate (sputum test change from positive to negative)	Achieve smear conversion rate of at least 85% in new cases by December 2003		
Expansion of short course programme on directly observed treatment	Short courses in all districts		
Pharmaceutical Policy and Planning	Essential Drugs Lists and Standard Treatment Guidelines for all levels of health service delivery	Percentage decline in Multi-Drug Resistance TB	Reduce Multi Drug Resistant-TB to less than 1% in all new cases
		Completion of Essential Drugs List for primary health care	December 2002

Source: Adapted from National Treasury (2002).

### **What is the Basis of Accountability? The Money/Results Connection**

At the core of a results-oriented accountability approach are assumptions that managers understand that money is linked to targets, political representatives have the information to enforce output targets, and political representatives have the incentive to actually enforce output targets (being accountable for linked outcomes). All three of these important requirements are unmet when budgets fail to effectively connect money to results, as is the case in the South African situation and in many other examples of performance-based budgeting reform. In situations where the 'performance' part of the budget is kept separate from the 'money' part of the budget (as in South Africa where allocation amounts are included in the line-item budget presentation and the 'summary of transfers and subsidies per program' but not in the 'key outputs, indicators and targets' tables) neither political representatives nor managers are given a clear message to connect results and allocations. This problem is worsened by the fact that the programs identified in the 'summary of transfers and subsidies per program' do not even match with the programs identified in the 'key outputs, indicators and targets' table—limiting one's ability to match the performance targets in the latter table with allocations in the former. Examples from the South African Department of Health budgets include:

- 'Medicines Regulatory Affairs' is listed as a program in the former table but is not listed on the latter table at all.
- 'District Health Systems' has zero allocations but has specific outputs identified.<sup>5</sup>
- 'Pharmaceutical policy and planning' is listed as a subprogram on the 'Key outputs, indicators and targets' table but has no allocation on the table showing program allocations.

The poor connection between actual allocations and performance targets in 'performance-based budgets' is also evident in Malaysia. The government has various different

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<sup>5</sup> The 'outputs' identified include: improved equity in access to primary health care services, fully functional clinics and community health centers, and primary health care delivery by local government regulated by service agreements.

budget documents, with the main appropriations document showing limited performance data and the additional 'Programme and Performance Budget Estimates Book' used as a source of information on Programmes and Activities of Ministries/Departments and Statutory Bodies of the Federal Government for each budget year. "Parliamentarians are the main users of the book gathering information and explanations of all major Programmes and Activities carried out by Ministries/Departments and Statutory Bodies that receive allocation for operating expenditure from the Federal Government. This book is a supporting document to the Federal Budget Book that is presented annually in October to Parliament" (Treasury of Malaysia 2002, 1).

Separating details of funding from performance measures has the effect of de-emphasizing the importance of results, as managers continue to view the results-emphasis as an add-on instead of the core focus of the budget. Managers and political representatives in such situations are likely to continue focusing on allocations control instead of performance (especially when their internal accounting systems are more conducive to line-itemization than performance-based budgeting, which is commonly the case, or when internal and external audit and lending agents continue to focus on questions of expenditure control instead of performance). Separating the question of how well money is spent from how money is spent also negates the development of managerial incentives necessary for a results oriented-type accountability structure. The budget does not show how much money is allocated to the achievement of individual outputs, making it difficult to hold political representatives or managers accountable for such—and limiting any kind of results-oriented incentives associated with allocations behavior (as in the case with HIV/AIDS and tuberculosis, where funds are obviously allocated to various programs in the 'per programme' budget and specific targets are identified in the 'by outputs, indicators and targets' budgets, but no reference is given to link individual programs (and responsible agencies) with individual targets).

A final consequence of introducing results information separately to the actual allocations table is the entrenchment of a 'specialization' and 'separation' culture common in governments (in which planners, development experts and

performance-minded evaluators do certain tasks and accountants and budgeters do other tasks, never to communicate over their boundaries). This kind of culture has been known to limit the role of planners in local government planning-budgeting reforms (Andrews 2002) and of development experts in MTEF-type reforms in Africa.<sup>6</sup> When performance targets are not directly connected to allocations in the budget document and process, personnel working on monetary allocations lack incentive to engage with personnel working on performance management issues.

### **What is the Basis of Accountability? Problems with Results Identification**

Even where performance measures can be related to actual projects in the South African case, there is a question as to whether the results identified can actually stimulate a results-oriented accountability in government. Wang (2000, 109) states that, “Performance measurement depends on developing clear, consistent organizational goals.” His comment is universally agreed-upon, with the general sentiment that results-oriented accountability demands the identification of results that are relevant, clear, and measurable. In many cases (including the South African case) the results identified do not meet these criteria—outcomes are unconsidered, outputs are confused with inputs, targets lack a ‘real-world’ value and are poorly detailed and disconnected from activities and projects needed to achieve them.

The first observation to be made from table 3 is that there are no outcomes, goals, and targets. As shown in figure 1 (the results chain, connecting program and projects to outputs to outcomes), outcomes are the end goals of policy that usually manifest in political manifestos and reflect political government goals. These are the goals that are relevant in creating results-oriented political accountability (as they relate to the election manifestos politicians espouse). If such goals are not included somewhere in the budget it will be impossible

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<sup>6</sup> The last point is commonly discussed in the development community, which promotes such reforms. Where MTEFs are developed and published separately to the annual budget, they tend to have very little meaning, and the ‘developmental’ side of the process is held distinctly separate from the accounting and reporting and control side.

to hold political representatives accountable—whether these be members of the executive in a parliamentary system (the Minister of Health in South Africa, for example) or the Presidential Cabinet in a Presidential system.

The second observation from table 3 is that the ‘outputs’ identified are very often questionable. While it is understood that the definition of ‘output’ is itself variable, it appears as if many of the ‘outputs’ identified in the table are in fact inputs in the production process. These ‘outputs’ seem to be technocratically identified, relating to the implementation of systems or the development of guidelines, which may seem like ‘outputs’ within a bureaucratic process, but have no such meaning in a broader service environment (where they are inputs into the production process). Such goals are not only poorly defined, but they are also socially irrelevant and fail to focus managers on the external production of services and on performance within such context. Such problematic ‘goals’ include the following:

- In the Health Monitoring and Evaluation subprogramme the output identified is ‘full implementation of district health information system’ which relates more to an input in a production process than an output of such. An output of such implementation would involve improved information access or ability to evaluate and monitor district health provision—not simply the implementation of a system.
- In the Maternal, Child and Women’s Health subprogramme the output measure or indicator identified is ‘guidelines for youth and adolescent health published and distributed’ which are once again inputs into a production process, not outputs of such. The ‘measure’ fails to capture the essence of youth and adolescent health responsibilities and cannot be expected to enhance accountability for achieving improved youth and adolescent health.
- In the Maternal, Child and Women’s Health subprogramme the output ‘improved women’s health and reduced maternal mortality’ is associated with the indicators ‘number of districts that have implemented the national programme for cervical and breast cancer awareness and screening,’ ‘number of clinics that have implemented antenatal clinic protocols,’ ‘number of

districts with inter-sectoral plans to tackle the causes of poverty and poor nutrition', and 'Legislation to ensure food fortification'. Implementing programmes and protocols and developing plans and legislation are not outputs showing 'improved women's health and reduced maternal mortality'. Indeed, the literature shows that giving managers such 'procedural' goals can take their focus off actual service provision.<sup>7</sup>

The third observation one can make about the performance targets is that they generally lack the kind of detail that makes them measurable and evaluable. Outputs, measures and targets typically do not relate the actual measure, quantity, location, date, cost per unit or quality measure relevant for evaluation. The output 'improved child health' is associated with an appropriately detailed output measure and target, 'prevalence of wasting and stunting among children, and being underweight for their age among children under 6,' and 'reduce prevalence of wasting from 2.6 percent to 1 percent, stunting from 23 percent to 15 percent, and underweight children from 9 percent to 5 percent by 2004'. Other measures fail to meet this kind of standard. An example relates to the output 'improved youth and adolescent health,' which is associated with the following measures: 'teenage pregnancy rate' and 'substance abuse rates amongst adolescents.' The relevant targets are 'reduce teenage pregnancies' and 'reduce substance abuse.' These output measures and indicators lack the detail necessary to give them meaning or to make them effective vehicles for creating results-oriented accountability profiles. Questions managers could ask when being evaluated on the targets as written, include: In which population groups was the teenage pregnancy rate meant to drop? By how much was it meant to decline? By when was it meant to decrease? Substance abuse

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<sup>7</sup> Andrews (2002) finds, in a study of South African local governments, that many municipalities adhered to the legal requirement to develop local plans without developing meaningful plans or using such plans to drive their budgets (the intended direction of plan development). In such instances the incorrect performance target (creating plans) had an unintended consequence of focusing managers on the task of developing plans instead of providing services.

rates declined for some substances, but not others—but we were just targeting broadly were we not?

A final problem with most of the outputs, indicators and targets in the Department of Health's budget is that they are not meaningfully linked to any kind of activity or project (a point similar to that discussed earlier, related to the money/results disconnect). In a number of cases outputs, indicators and targets seem totally unrelated, leaving one to question exactly what the department is aiming at (and in fact what they are doing). In other cases the outputs identified appear generic and don't seem to relate to what the department is doing, suggesting that managers have not developed unique and relevant measures and targets that they are indeed focusing on. In these cases one has to ask what meaning the performance measures have, even internally, and to question the potential such measures have to focus managers or representatives on results:

- In the area 'HIV/AIDS and Tuberculosis' an indicator is 'cases of sexually transmitted infections effectively treated in public and private sectors' with a target being '50 percent of cases treated effectively by 2001.' What is meant by 'cases of sexually transmitted infections' and 'effective treatment?' A more applied measure would state what kind of infections are being targeted and with what kinds of treatments.
- In the area 'HIV/AIDS and Tuberculosis' an output is 'improved strategies to deal with the HIV/AIDS epidemic,' an indicator is 'incidence of HIV' and a target is 'leveling off of epidemic with fall in number of infected under 20-year-olds.' The major problem is that the 'incidence of HIV' is not necessarily associated with 'good' medical service. It is possible that the epidemic could level off (with a decline in HIV positive cases) because of deaths in 'old' cases.

When measures are vague, technocratic, and unrelated to results they have limited potential to stimulate a results-oriented accountability. This is because they fail to create a results-oriented bottom-line that is relevant to the activities and mission of the organization, can be measured and can be enforced. Managers lack the incentive to produce results because the results identified are weak, often unrelated to

activities, and poorly detailed. “Performance measurement” like this “produces information that confuses, rather than reinforces, decision makers and the public” (Wang 2000, 103).

### **Who is Accountable?**

The third area where the South African situation suffers weakness (also common in other cases) relates to the relational side of performance-based accountability. Even if money is connected to performance and performance measures are of a high standard, one still needs to know who is accountable for performance (and who will hold them accountable and how) before a performance-based accountability system can be said to exist.

As it has progressed to date the South African government fails to show these kinds of details in its budgets. In the area of HIV/AIDS and tuberculosis, for example, the following are identified as fund recipients: South African Tuberculosis Association HIV/AIDS (NGOs), Government Aids Action Plan (GAAP) (NGOs), South African National AIDS Council HIV/AIDS Conditional Grant, Love Life, Tuberculosis—Financial Assistance to NGOs and SA AIDS Vaccine Initiative. The following are among the output targets identified: ‘leveling off of (HIV) epidemic with fall in number of infected under 20-year-olds,’ ‘50 percent of (sexually transmitted disease) cases treated effectively by 2001,’ and ‘472 million (condoms) annually by 2004/05’. In trying to connect the individual projects and cost centers with targets, one is left asking, ‘Who is responsible for which targets?’ or ‘If one of the targets is not met, which project manager is responsible?’ These questions show that the budget effectively fails to create an organizational bottom-line because it does not identify who is accountable for results generation at different points in the organization or in the public ‘production process.’

The failure of the budget to identify or affirm accountability relationships in countries like South Africa is curious because such countries often have civil service policies that require Chief Executives (and other senior appointees) be hired on the basis of ‘performance contracts.’ The national civil service reforms are focused on a similar goal to that of the budget reforms: “To build a performance culture in the civil service, starting with the top management echelons.” Furthermore, the civil service reforms have required that (since 2000) “all



managers sign performance contracts aligned to appropriate reward structure” (Fraser-Moleketi 2000). The civil service performance contracts and reward structures are seemingly unrelated to the performance-based budgeting exercises, however, with no reference in the ‘Estimates of National Expenditure’ to managerial performance contracts and no in-budget identification of such. Furthermore, the ‘Estimates of National Expenditure’ provides no guidance as to who will measure performance and enforce targets (or what mechanisms will be used to do so). There is also no political performance accountability link (with no outcome targets developed).

These factors make it impossible to hold anyone accountable for results when no one is identified as being so accountable in the budget and when no one is identified as having the role of holding agents accountable.

### **Performance-based Budgeting Reform: Points to Proceed**

The example of recent budget reform in South Africa shows that even with positive reform progress a ‘best practice’ government can still face problems in the move to develop results-oriented bottom-lines and accountability constructs in their budgets. While the budget process has changed significantly in the last five years it is still unlikely to provide the basis for a new performance-based accountability in the public sector. What are the next steps in progression for a country like South Africa, and pointers for countries behind South Africa in the performance-based budgeting reform progression?

The aim of reforms like those in South Africa is to change the institutional constructs influencing the nature of public sector accountability. In the words of the South African Minister of Public Service and Administration, such reforms are intended to “build a performance culture” or at least to introduce incentives that focus individuals on performance in the public sector.<sup>8</sup> In order to continue reforms and stimulate

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<sup>8</sup> The cultural/incentives arguments are reflected throughout institutionalist literature (see Poterba (1996, 28) and Andrews (2002)). In the first instance results-oriented rules (like the requirement that

the development of such a performance-based culture or of performance-based incentives, budget reformers should think about the following points for progress:

- ‘Mainstream’ performance budgets by linking allocations to results requirements.
- In developing performance criteria, ensure relevance, readability, and realism.
- Clarify accountability relationships by creating results-oriented ‘bottom-lines.’
- Make accountability relationships enforceable by creating appropriate institutions.

These four points are all considered in developing table 4, a proposed budget structure that links fiscal allocations to clearly-defined and measurable performance targets at the project, program and departmental level and identifies those accountable for outputs (managers) and outcomes (political representatives)—all in one document.

#### **‘Mainstream’ Performance Budgets by Linking Allocations to Results Requirements**

The first problem identified with the South African budget as it stands in 2002 (and with budgets in countries like Malaysia and Singapore) is that the performance element is separated from the actual allocations part of the budget. It is difficult to assess how much money is being allocated to the production of which outputs. This is corrected in table 4 as obvious connections are shown between budgetary allocations,

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department heads set targets) constitute a benchmark and structure for budget deliberations, an objective approach that yields certain types of behavior (results targeting) culturally appropriate and others (a pure control concentration, for example) culturally inappropriate. Kaul (1997, 15) says of this kind of change in the Malaysian context: “The concern for quality and the increasing identification with the public concerns are important aspects of the new culture. This gives rise to the possibility that a new public service value system is emerging in which quality, like probity more traditionally, is taken as moral as much as regulatory.” In the second instance results-oriented rules that link performance to future allocations or compensation provide a promise of repercussion associated with certain behavior (lower compensation because of poor performance), creating incentives for specific behavior (a greater performance focus).

the department, program, sub-program and project/activity in which allocations are to be spent, and the output targets associated with each entity in the public production process. The spending entities identified are those directly responsible for outputs.<sup>9</sup> Entity identities and outputs are broken down in a way conducive to performance management in hierarchical structures (like public organizations), with:

- Project or activity areas identified as responsible for the production of specific outputs (like the 'condom distribution' project) and tied to
- Sub-programs where officials are responsible for overseeing output production in related project/ activity areas (like HIV/AIDS prevention) and then to
- Programs where officials oversee related sub-programs (like strategic health programs) and finally, to
- The department, where the head is responsible for overseeing performance in all programs (like the Department of Health).

Table 4 'mainstreams' a performance-type accountability by tying budget allocations directly to results requirements. This kind of approach mirrors the way in which countries like Australia insert performance requirements into their standard budgets, fostering an understanding that results and finances are tied, and that results should be considered as centrally in the management process as basic disbursement control. Consider, for example, a segment from the health budget in Australia (shown in table 5).

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<sup>9</sup> This overcomes the problem of identifying sub-programs and projects by the agents spending the money but not necessarily responsible for outputs. Instead of saying that money is going to the South African Government Aids Action Plan (GAAP) (NGOs), South African National AIDS Council HIV/AIDS Conditional Grant, Love Life, Tuberculosis—Financial Assistance to NGOs and SA AIDS Vaccine Initiative, the present approach favors showing how money is being allocated to sub-programmes that are connected by definition to specific outputs (for example, AIDS treatment and AIDS prevention).

**Table 4. Proposed Results-oriented Budget Format for the HIV/AIDS Program, 2001/02<sup>10</sup>**

<b>Department Program Sub-program</b>	<b>2001/02</b>		<b>2002/03</b>		<b>2003/04</b>		<b>Official respon- sible</b>	<b>Related outcomes</b>
	<b>Project/activity</b>	<b>Budget</b>	<b>Output target: quantity, location, date</b>	<b>Budget</b>	<b>Output target: quantity, location, date</b>	<b>Budget</b>		
<i>Strategic health programs</i>	853,426	All outputs targeted in the program	996,765	All outputs targeted in the program	1,113,827	All outputs targeted in the program	Ms G	All related to program 1 and 2
<u>HIV/ AIDS prevention</u>	<u>62,000</u>	<u>A and B below</u>	<u>124,000</u>	<u>A and B below</u>	<u>169,000</u>	<u>A and B below</u>	<u>Mrs A</u>	<u>(below)</u>
Condom distribution	30,000	A. 200 million condoms to be distributed with 'learning pamphlets' through public clinics and hospitals annually by March 2002 (at least half distributed in rural areas).	55,000	A. 350 million condoms to be distributed with 'learning pamphlets' through public clinics and hospitals annually by Mar 2003 (at least half distributed in rural areas).	70,000	A. 472 million condoms to be distributed with 'learning pamphlets' through public clinics and hospitals annually by Mar 2004 (at least half distributed in rural areas).	Mr B	1
Mother-to-child HIV/AIDS treatment	32,000	B. All pregnant women tested for HIV/AIDS in the nation by Dec 2002. 90% of HIV positive women (anticipated = 5,000) treated with anti-retrovirals on a daily basis for entire period of pregnancy by March 2002.	69,000	B. All pregnant women tested for HIV/AIDS in the nation. All HIV positive women (anticipated = 7,000) treated with anti-retrovirals on a daily basis for entire period of pregnancy by (and from) March 2003.	99,000	B. All pregnant women tested for HIV/AIDS in nation. All HIV positive women (anticipated = 9,000) treated with anti-retrovirals on a daily basis for entire period of pregnancy over entire period.	Dr X	2

<sup>10</sup> The table's detail is based upon, but not necessarily representative of, detail in National Treasury (2002). For example, money spent on HIV/AIDS is split into two programs (and projects within such) in this table, with funding to each calculated as a portion of the amount being spent in the various sub-programmes (123745 in 2001/02, 247709 in 2002/03, 354826 in 2003/04). This kind of split is not the same as that in National Treasury (2002), but is offered as a more appropriate way of developing a performance-based budget (linking projects, finances and targets more directly than in National Treasury (2002)).

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HIV/ AIDS treatment	61,745	<a href="#">detail below</a>	123,709	<a href="#">detail below</a>	185,826	<a href="#">detail below</a>	Dr. G	<a href="#">detail below</a>
	<a href="#">detail</a>	<a href="#">detail</a>	<a href="#">detail</a>	<a href="#">detail</a>	<a href="#">detail</a>	<a href="#">detail</a>	<a href="#">detail</a>	<a href="#">detail</a>
<b>Department of Health</b>	<b>Whole budget</b>	<b>All outputs targeted in the department</b>	<b>Whole budget</b>	<b>All outputs targeted in the department</b>	<b>Whole budget</b>	<b>All outputs targeted in the department</b>	<b>Minister of All Health</b>	
<b>Outcomes targets:</b>				<b>Evaluation method, evaluator identity, date of evaluation publication:<sup>11</sup></b>				
1. Citizens engaging in safe sex increases from 50% to 60% by March 2003 and to 70% by March 2003 and to 80% by March 2004.				Annual survey (to be conducted in early March each year) of sexually active citizens, by HSRC, with results submitted to Auditor General's Office and published by April 30 of each year.				
2. Number of HIV infections among new born babies declines from 5,000 per year to 1,000 per year in 2002 (evaluated March 2002) and to 500 per year in 2003 (evaluated March 2003) and to 100 per year in 2004 (evaluated March 2004).				Babies' HIV status tested at birth, recorded on birth records, at each public facility, examined in March each year by Auditor General's Office, with report issued by April 30 each year.				
<b>Impact (longer term outcome):</b>								
Decrease in incidence of new HIV cases from 10,000 per annum in 2002 to 1,000 per annum in 2005.				Recorded death status, examined in March 2005 by Auditor General's Office, with report issued by April 30 of that year.				

<sup>11</sup> The issue of who pays for and manages evaluations is key to developing an effective results-orientation.

<sup>12</sup> This overcomes the problem of identifying sub-programs and projects by the agents spending the money but not necessarily responsible for outputs. Instead of saying that money is going to the South African Government Aids Action Plan (GAAP) (NGOs), South African National AIDS Council HIV/AIDS Conditional Grant, Love Life, Tuberculosis—Financial Assistance to NGOs and SA AIDS Vaccine Initiative, the present approach favors showing how money is being allocated to sub-programmes that are connected by definition to specific outputs (for example, AIDS treatment and AIDS prevention).

**Table 5. An Example of Program Identification in Australian Budgets, with related detail**

Health and Ageing	2002-03	2003-04	2004-05
Better treatment for cancer patients	13.1	18.8	20.4
<i>Explanation:</i> "The Government will provide \$72.7 million to improve patient access to radiation oncology services, particularly in rural and regional areas, through building up to six new facilities outside the capital cities and funding their operation. Part of the funding will also be allocated to measures designed to attract and retain appropriately trained staff to the new facilities through the provision of ongoing professional education and training designed to keep staff up to date with international best practices."			
<i>Related outcomes:</i> <u>Outcome 2:</u> Access through medicare to cost-effective medical services, medicines, and acute health care for all Australians. <u>Outcome 9:</u> Knowledge, information, and training for developing better strategies to improve the health of all Australians.			

*Source:* Commonwealth of Australia (2002).

The small section from the Australian budget shows exactly which program money is going to in the Department of Health and Ageing over a medium term period. It then ties the allocations to an 'explanation of the program' which, if read carefully, sets out output requirements fairly directly (building new facilities, for example). Further to this, the actual allocations are connected, through the production targets, to broader social outcomes—enhancing the legitimacy of these 'political' performance requirements. In this case, as is the envisioned idea evident in table 4, the steps of allocating money, setting goals, evaluating goals, and rewarding or penalizing managers in the production hierarchy are all unified into one budgeting process (rather than two disparate budgeting and performance management processes). In so doing performance is 'legitimized' into the public production and management process.

**Develop Performance Criteria Carefully, Ensuring Relevance, Readability, and Realism**

'Mainstreaming' performance into the standard budget will only work to facilitate a new performance-based accountability if the performance goals and information are themselves useful and organizationally relevant, 'readable' and realistic (Berman (2002) stresses the importance of 'useful' measures). Problems identified in the South African Department of Health

outputs and indicators are typical to many governments and combine to limit the influence of such on managerial and political behavior. In the area of HIV/AIDS care, for example, the output and indicator combination of 'improved strategies to deal with the HIV/AIDS epidemic' and 'incidence of HIV' do not combine to facilitate effective performance management. Effective targets identify outputs and outcomes that are relevant to the organization's mission and can be evaluated.

Table 4 shows output targets (for a medium-term budget, with targets 'stepped' up in each year) that meet all relevant criteria. They are directly tied to the projects (in the 'condom distribution' project, for example, the output relates to specific numbers of condoms distributed—a production target linked directly to the project mission). The project is then related to an outcome target (in this case an increase in the number of 'citizens engaging in safe sex'), which would commonly be a related outcome of other projects and programs as well, and for which the Departmental Minister will ultimately be held responsible. Outcomes are then related to impacts (longer-term outcomes) such as 'decrease in incidence of new HIV cases from 10,000 per annum in 2002 to 1,000 per annum in 2005.' This kind of identification needs to be informed by an analysis of the organizational mission and structure as well as an understanding of the meanings of terms like 'inputs,' 'outputs,' and 'outcomes' and the logical process of connection between all three. Standard literature defines 'inputs' as resources invested in a process, program or activity, 'outputs' as the amount of work produced by a process, program or activity and 'outcomes' as the extent to which stated objectives are met. 'Impacts' could be defined as longer-term outcomes that relate to political promises at election time.

Figure 2 connects project choice, input use, outputs, outcomes and impacts in a results chain as an exercise that forces identification of the logical progress of the public production and management process. Weak performance measures suggest either poor understanding of performance management or a lack of buy-in to the performance management idea. Working through the results chain is useful in both situations, as it assists managers who are used to a 'controlling' approach to better understand the results concept and the process towards results achievement, and it

**Figure 2. Connecting Inputs, Outputs and Outcomes in the Results Chain<sup>13</sup>**

<b>Sub-program</b>	<b>Inputs</b>	<b>Projects/activities</b>	<b>Outputs</b>	<b>Reach</b>	<b>Outcomes</b>	<b>Impact</b>
<b>HIV/ AIDS/ STD prevention</b>	<b>62,000<sup>14</sup></b>					
	30,000	Condom distribution	350 million condoms to be distributed with 'learning pamphlets' through public clinics and hospitals annually by March 2003 (at least half distributed in rural areas).	Citizens in rural and urban areas, through public facilities	Citizens engaging in safe sex increases from 50% to 80% by March 2004.	Decrease in incidence of new HIV cases from 10,000 per annum in 2002 to 1,000 per annum in 2005.
	32,000	Mother-to-child HIV/AIDS treatment	All pregnant women tested for HIV/AIDS in the nation by December 2002. 90% of HIV positive women (anticipated = 5,000) treated with anti-retrovirals on a daily basis for entire period of pregnancy by March 2002.	Citizens in rural and urban areas, through public facilities	Number of HIV infections among new born babies declines from 5,000 per year to 1,000 per year in 2002 (evaluated March 2002) (and related in future years).	Decrease in incidence of new HIV cases from 10,000 per annum in 2002 to 1,000 per annum in 2005.

<sup>13</sup> This example's detail is developed without direct reference to details in the South African study, which lacks detail sufficient to identify the connection between inputs and outputs and outcomes.

<sup>14</sup> Note calculation as per that in table 4.



disciplines ‘unwilling’ managers to consider target identification in a way that is immediately relevant to the organization’s production process. The approach also facilitates easy explanation of targets and communication of the links between projects, programs and the overall mission of the organization.

Because performance-based budgeting is critically linked to results-oriented management, the process of results targeting needs to be linked to other areas of management. Indeed, to ensure that results measures are realistic, it is imperative that officials perform a risk assessment when setting targets. A risk is anything that could jeopardize the achievement of an output or outcome. Asking the following kinds of questions help to identify risks: What could go wrong? How could we fail? What must go right for us to succeed? Where are we vulnerable? How could our operations be disrupted? What activities are most complex? On the basis of such questioning, officials can assess risk and identify ‘control activities’ necessary for managing the risk (as shown in table 6).

**Table 6. Assessing Risk in a Performance-based Budgeting Approach**

<b>Outputs and outcomes</b>	<b>Risks</b>	<b>Control Activities</b>
List clearly defined and measurable outputs and outcomes	For each output/outcome, list all significant risks (likely to occur and with large potential impacts)	For each risk, list: (1) Actions taken to manage the risk, (2) Control activities which help to ensure that the actions to manage the risk are carried out properly and in a timely manner, (3) Sources of information, methods of communication, and monitoring activities.

Assessing risk related to performance targets helps to ensure that such targets are realistic and that they will be considered binding when the time comes for performance evaluation. Getting managers and executives (in the case of government these are often political appointees) to think about these threats up-front should strengthen the targets themselves, and should also facilitate effective ‘managing for results’ (whereby managers can focus on results and manage

factors that threaten to yield their performance 'poor'). This kind of assessment is required in the State of Virginia, where agencies complete internal assessments as part of the performance-budgeting process (Virginia Department of Planning and Budget 2002). In these assessments they identify risks related to external trends, internal process requirements, new legislation and other factors.

A step beyond identifying output and outcome goals that should also be pointed out, involves tying outputs and outcomes targets to efficiency and quality measures. These kinds of ties should strengthen management in the production process. It is the kind of link that should develop from internal control processes, but go beyond such to include emphasis on alternative methods of production—with the end goal being reaching targeted performance (with targeted quality) in the most cost effective way (Andrews and Moynihan 2002). There are no such measures incorporated into table 4 because of space considerations and also because this kind of identification comes after relevant, readable and realistic outputs and outcomes have been identified.

### **Make Accountability Relationships Obvious by Creating Results-oriented 'Bottom-lines'**

A third pointer to countries in South Africa's position is: To entrench performance-based accountabilities in the public organization, re-define relationships in the organization so as to reflect a results emphasis.

Budgets and financial documents communicate the core responsibilities and accountability relationships in the public organization (Mikesell 1995). The important questions about accountability and responsibility, are: "By whom?" "To whom?" and "For what?" In standard budget formats (and indeed in the systems in place in countries like South Africa) it is apparent that answers to these questions are unclear (with no references to specific accountability links in budget documents). Where such relationships do exist, the 'For what' answer always reflects a control emphasis instead of a performance one (the emphasis on spending within budget is, for example, the dominant 'for what' in most countries). In such instances, results targets and measures have limited influence on accountability structures, because specific

individuals or organizational parts are not held accountable for such.

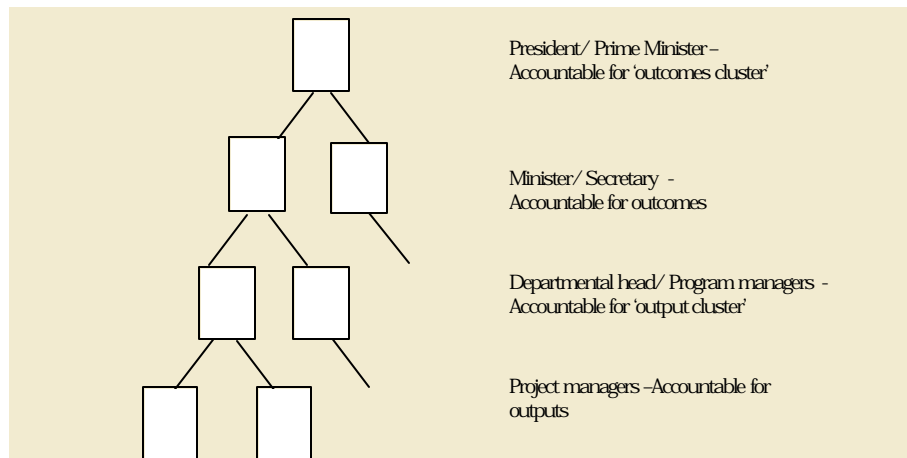
If performance-based budgets are to herald a new kind of accountability structure, governments need to replace the *ex ante* control emphasis in hierarchical public sector accountability structures with an *ex post* performance emphasis. This new kind of emphasis lends itself to a hierarchical structure in which officials down the rungs of the organization are tied together by their performance in producing public goods. This is shown in Table 4, for example, with:

- 1) Individuals in charge of specific projects made accountable for the specific outputs of such ('Mr. B' is responsible for the outputs identified in the condom distribution project, for example),
- 2) Individuals in charge of subprogrammes held accountable for 'output clusters' produced in projects under their care (Mrs. A is accountable for the outputs of the condom distribution and mother-to-child HIV/AIDS treatment projects, both of which fall under the subprogramme 'HIV/AIDS prevention,' for example),
- 3) Individuals in charge of programmes held accountable for 'output clusters' produced in such (Ms. G—the head of the 'strategic health program' is held accountable for the outputs produced in the 'HIV prevention' and 'HIV treatment' subprogrammes, for example), and
- 4) The executive in charge (in this case the Minister) is accountable for all outputs, and the way outputs combine to affect outcomes (as, in the example, the bottom-line of the budget shows the minister responsible for all outputs and outcomes, which are shown immediately below).

By identifying officials accountable for results, the budget format in table 4 creates a series of bottom-lines that should have the effect of making results-based accountability the driving form of accountability in public organizations. This identification becomes the basis of external accountability constructs—with legislators and citizens able to see exactly which officials are responsible for producing which results. It also becomes the basis of internal accountability relationships with officials connected together by expectations of performance in the production process. This kind of relational

accountability is important for better understanding roles in the performance-based organization—an understanding which also becomes the basis for managerial strategy. Figure 3 shows such a relational structure in a four-layer hierarchy.

**Figure 3. Results-based Accountability Relationships Inform Managerial Structures**



The figure clearly shows the 'results' connections between officials in a typical organization. If the officials at the top of the organizational hierarchy (the head of the political executive and her executive leadership) set policy (based on targeted outcomes), they need to manage those responsible for programs focused on achieving such. Program managers similarly need to manage the project managers appointed/hired/contracted to produce specific outputs. Accountability relationships arise when program managers hold project managers accountable for producing specific outputs, ministers or secretaries similarly hold program managers accountable for 'output clusters' related to the achievement of specific outcomes, and the president (or executive head) holds ministers or secretaries accountable for outcome production (as in table 4, where the Health Minister would be held accountable annually for outcomes like 'citizens engaging in safe sex increases from 50 percent to 60 percent by March 2003 and to 70 percent by March 2003 and to

80 percent by March 2004' and for an impact at the end of an electoral cycle, 'decline in HIV incidence).'

### **Make Accountability Relationships Enforceable by Creating Appropriate Institutions**

Having identified who is accountable for what and how accountability relationships interact in the production process, governments intent on introducing effective results-oriented accountability need to institutionalize processes by which accountability relationships are enforced. In particular, this involves institutionalizing:

- Internal and external performance evaluation,
- Performance management incentives, and
- Avenues of political results accountability.

### ***Internal and External Performance Evaluation***

In order to enforce performance-oriented accountabilities it is vital that governments be able to evaluate performance. This means more than having measurable indicators, however (Wang 2000; Virginia Department of Planning and Budget 2002). It means identifying who will evaluate performance, when, how, and with what kind of evaluation distribution. The aim is to create incentives for managers to manage for performance and for politicians to take their outcome targets seriously. With such an aim in mind, there is a strong argument for independent, external evaluation of outputs and outcomes results. In table 4 outcomes results are slated for external evaluation by the Auditor General's Office, for example. One could also look to a dedicated office under the president to evaluate such results. This would make sense given that the president is the one responsible for checking Ministerial performance (at least in this model). The key is that the entity be created through legislated means (formally institutionalized) as independent of established departments, and that it have its own budget, to be used exclusively for measuring and reporting on performance.

There is also a strong argument that results be publicized at the same time as they are sent for executive analysis, to ensure transparency in the executive reward/redress response. Outputs should also be evaluated by independent agencies but there is a rationale to hold such evaluation in-

house as well. The rationale is simply that program managers' performance is dependent on project managers' performance (as in figure 3), and regular internal evaluation (quarterly) could alert the former as to potential performance short-falls in particular projects. In this way performance measurement facilitates performance-based management and organizational learning (as managers can intervene to re-focus their subordinates on the targets at hand).

### ***Performance Management Incentives***

A key argument in economic new institutionalism is that behavior changes when incentives created by institutions change (Poterba 1996). In most governments, officials—managers and politicians—do not face incentives to perform but are instead rewarded for fiscal prudence, discipline and rule-adherence. To engage officials at various levels of the public organization in results production it is vital that reward and redress structures be re-set so as to create incentives fostering effective performance management (re-orienting officials towards the production of targeted results). Performance management incentives have at least two dimensions: Incentives for individuals to manage so as to maximize their own performance and incentives for individuals to manage in relationship with others to maximize organizational performance. Prominent incentive mechanisms focused on both dimensions include pecuniary-based reward structures and moral suasion/civic pressure devices.

The former structures involve using formal contracts to tie individual and/or organizational compensation to performance. The South African government has such contracts in place for senior managers, but it does not appear to locate these contracts in the context of organizational targets set out in the performance-based budget. This means that officials in only some layers of the organizational hierarchy face incentives to perform. This situation is problematic when considering the hierarchical nature of the public sector production process: If a program manager faces a performance contract but those above or below her do not, it is virtually impossible for that official to manage across levels

of the organization and ensure that results are produced.<sup>15</sup> In order to orient managers (and managerial relationships) towards performance, contracts need to be set throughout the organizational hierarchy, from the minister down. In terms of figure 3 this involves the president setting outcomes-based contracts with ministers or secretaries (in the US. system), while these officials set 'output cluster' targets for program managers who then set output targets for project managers. These contracts inform compensation decisions throughout the organization, with managerial welfare connected through the logical connection of results dependence (if one fails at the bottom of the hierarchy, she faces lower compensation, but her performance also affects the compensation of superiors). Such logical connection creates incentives for superiors to manage lower layers in the most appropriate way for performance generation (allowing appropriate discretion while at the same time monitoring performance).

Similar contracts are in place in governments like Florida and Virginia (OPPAGA 1997, Fuchs 1998, Virginia Department of Planning and Budget 2002).<sup>16</sup> The Virginia experience is generally considered 'best practice' in the American context, with individual contracts reinforced by organizational gain sharing agreements—whereby departments producing results within budget are allowed to keep surplus funds and use them to benefit the entire organization. This kind of reward option creates incentives for individuals to work towards personal performance maximization and to contribute to department-wide discussions of policy selection, production technique and so forth—all with the focus on ensuring maximized performance. This kind of incentive appeals to the assumed 'budgetary discretion' preference of bureaucratic managers

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<sup>15</sup> Consider, for example, the situation where a program manager is contracted to produce specific 'output cluster' results but there is no way of appointing project managers to similar contracts. The program manager would have no way of ensuring subordinate project managers perform effectively and, because program results are tied to project results, the program manager's own performance would be related to those of the project managers.

<sup>16</sup> In other governments (like Texas) these incentive mechanisms been difficult to introduce because of legal constraints on the type of compensation government employees can earn (legal constraints are an important consideration for reformers).

(who desire control over as much of their budget as possible) (Kraan 1996).

The second kind of incentive mechanism one sees employed in relation to performance-based budgeting initiatives (in countries like Great Britain and Malaysia) involves publicizing results commitments so as to effect a 'moral' pressure on officials to perform. Mission and objective statements must be identified at all levels of the Malaysian Government to state what services are offered and furnish a time frame for completion of the service. Such statements are incorporated into a results-based budget as well as a Client's Charter, and are displayed prominently. The Charter is described as having "encouraged a change in the mindset of public officials, who are now required to search for more efficient and effective methods for the delivery of public services that satisfy customers" (Chiu 1997, 175). The changed mind-set has gone a long way in improving the performance of the Malaysian public sector, with officials having an incentive to perform (as promised) or else face public questioning and discipline (Mohamad 1997). The Ugandan government, while far from adopting a performance-based budget, have also shown the effectiveness of civic interest in creating budgetary incentives. "Monthly transfers of public funds to districts are now reported in the main newspapers and broadcast on radio . . . transfers to primary education (are) displayed on public notice boards in each school and district center." The results are clear, as reflected in a 1998 survey of the Ministry of Education budget, which "found major improvements in the flow of funds" (Reinikka1999).

### ***Avenues of Political Results Accountability***

Performance-based accountability is certainly enhanced by enforcing managerial bottom-lines through pecuniary and 'moral suasion' mechanisms. Performance-based accountability is further enhanced by creating effective avenues of political results accountability. In terms of table 4, this involves enforcing the 'Ministerial Bottom Line' (at the foot of the table) whereby ministers (or other equivalent officials) are held accountable for departmental performance (especially regarding outcomes). Further than this, these avenues also relate to enforcement of presidential performance—where the president is held accountable for disciplining poor performing



members of her executive, and for the way she manages such executive (and the outcomes produced by such).

Avenues for political accountability at the local level are often grafted into legislation pertaining to local governance. Legislation like the South African Local Government Transition Acts (LGTA) of 1993 and 1996 spell out the responsibilities of political representatives in local governments, for example. In some settings such responsibilities are limited to rule-adherence in the budgeting process but in others they extend to issues of representative morality. These kinds of requirements are sometimes evident at the national level as well, where constitutions might set out a code of conduct for presidents, members of the executive and other legislators. This kind of legislation (whether introduced in the constitution or in civil service laws pertaining to political representatives and particularly members of the executive) could be used to create avenues of political performance accountability. Presidents could be legally required, for example, to publicly evaluate ministerial performance on an annual basis—as against set ‘contracts’—and to reward or penalize ministers on the basis of such (with high performing executive members receiving monetary rewards for their policymaking and managerial achievements but poor performers facing monetary penalties or perhaps even replacement for their policymaking and managerial shortcomings). Legislation could similarly require that presidents be transparent with the electorate regarding their own ‘policy performance,’ facilitating voting based on performance.

### **Conclusion**

‘Accountability’ is the theme of all public sector financial management. In the fashionable performance-based reform movement accountability is still the core theme, with a fundamental question for reformers being: How well have reforms worked in introducing a results orientation into budgeting processes (with representatives and managers being held accountable for results) and where should reformers be concentrating to improve such effects?

With reference to the ‘best practice’ developing country example of South Africa, the current paper shows that a performance-based (or results-oriented) accountability is

difficult to establish through budget reforms. Indeed, reforms entail a progression from one form of governance (and one kind of accountability) to another. There are many steps in this progression, and many new institutions have to be set in place and new capacities developed to facilitate a transformation from the traditional process and control-based accountability structures to new performance-based accountability structures.

The South African example referenced is considered ‘best practice’ partly because of success with generic models (like MTEF) but also because of the apparent wisdom exhibited with regards the sequencing of reforms. The current paper tracked such sequencing through the development of program identities in medium term budgets (to answer questions about ‘who’ is spending and on ‘what’) to the identification of outputs, measures and targets (to provide information about ‘what’ agencies can be expected to produce). The paper then suggested problems that still limit the potential of the budgeting model to foster a results-oriented accountability culture or results-oriented incentives for managers and political representatives, as well as steps beyond the current situation that are required to stimulate the development of such culture or incentives. In the South African case these include the need to mainstream performance into the budget, to ensure that performance targets are relevant, readable and realistic, to identify ‘who’ is responsible for performance, and to introduce institutions necessary to enforce accountability relationships (both managerial and political).

These steps are considered relevant for the South African situation and are likely appropriate to other situations as well. All countries intent on developing a performance-based budgeting approach need to understand the sequences involved in introducing results based governance—and to know general pointers for effective reform—because a ‘bad’ performance-based reform is probably worse than a ‘good’ line-item budget. Bouckaert and Peters (2002, 359) emphasize this in saying that, “Implementing an inadequate system of performance management can provide a false sense of security and accomplishment and in the process will misdirect resources and activities. Inadequate performance management can become the Achilles’ heel of the modernization process itself.” The current paper aims to show that the move to

performance-based accountability is progressing well in some countries, but that work is still required to ensure it is an asset and not a managerial liability (or an 'Achilles' heel for public sector managers).

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# 3

## **SIMPLE TOOLS FOR EVALUATING REVENUE PERFORMANCE OF A DEVELOPING COUNTRY**

***Mahesh Purohit***

Source: Shah, Anwar, editor (2003), *Ensuring Accountability When There Is No Bottom Line*, Vol. 1 of *Handbook on Public Sector Performance Reviews*. Washington D.C.: The World Bank.

Performance of revenue indicates relative change in yield from tax as well as non-tax revenue of national or sub-national governments. It takes into account the changes in rates, base, and coverage related to the structure of revenue sources. It also incorporates the issues related to efficiency in governance of tax and non-tax sources.

Various concepts and techniques are used for the measurement of absolute as well as relative revenue performance indicators. For a more coherent appreciation, this paper presents in part 1, an analysis of the issues related to concepts. Part 2 presents the concepts and methodology adopted for estimating revenue performance. Part 3 gives illustrative results with the help of recommended simple tools. Finally, part 4 presents a summary of conclusions as to the choice of methodology and policy imperatives.

### **Introduction**

Research organizations working at national level or as think tanks of the Ministry of Finance<sup>1</sup> and international agencies engaged in monitoring the fiscal health of nations<sup>2</sup> attempt to analyze the revenue performance of the governments concerned. These organizations try to find out whether government revenue is increasing sufficiently over a period of

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<sup>1</sup> Such organizations exist in many countries. Some such organizations are the Institute of Fiscal and Monetary Policy in Tokyo, National Institute of Public Finance and Policy in New Delhi, and Fraser Institute in Vancouver, B.C.

<sup>2</sup> These include the International Monetary Fund, World Bank, Asian Development Bank, etc.

time. They also attempt to ascertain whether the tax revenue of a government is increasing with a rate higher than the rate of increase of gross domestic product (GDP). Efforts are also made to find out whether the generated revenue is sufficient to finance capital formation, to increase the rate of economic growth in the short period and to impart automatic stability into the economic system in the medium run.

An analysis of the above aspects enables one to estimate the performance of revenue of the country concerned. The performance of revenue is considered to be satisfactory on a given measuring scale if the available revenue sources provide increasing revenue year after year. The sources should also be income elastic with reference to their base. These should, in addition, enable the governments to raise the level of spending to provide better public services.

Most governments use a variety of sources for raising resources. These include taxes as well as non-tax sources. Tax revenue sources include taxes on income and property as well as taxes on commodities and services. The non-tax sources cover avenues such as contribution from public enterprises (commercial and non-commercial), interest receipts, revenue from economic and fiscal services, external grants, user charges and other sources. While the magnitude of tax and non-tax revenue depends on the performance of each source, tax revenue in most cases accounts for a major proportion of revenue. Also, the structure of direct and indirect taxes affects the overall performance of revenue. It also discloses as to how best the potential tax bases have been tapped through the revenue effort of a country.

In developed countries the production structure is characterized by the existence of large business undertakings, especially the multinational companies. The government is able to obtain a major part of its tax revenue through direct taxes. Income tax, in particular, takes a major chunk of the character of a mass tax, partly because the average income is quite high and partly because large wage employment enables the collection of income tax on salaries at a minimum cost through the system of withholding. In developing countries on the contrary, there exists a greater reliance on taxes on commodities and services and major part of revenue is drawn from these. The importance of the contribution depends upon the type of sales/turnover taxes in existence. While in the



short run, larger resources could be raised from cascade type sales taxes, their adverse effects on economy might result in low revenue performance in the medium-term. Also, in most cases, surplus from public undertakings is from the monopoly of natural resources from where a major part of the revenue is drawn.

### **Concepts and Methodology**

Revenue performance is measured through various methods. The most convenient method is to find out change in revenue over the last year as percent to the base year or successive years. This helps in assessing the rate of growth in revenue. Another method to estimate growth in relation to its base is the coefficient of buoyancy or income elasticity of the revenue. This takes into account the changes in revenue with reference to the changes in the base of the tax. Yet another method, i.e., revenue effort relates to finding out the conspicuous efforts of governments to mobilize resources such as any move to rationalize the rate structure, eliminating the unwanted and misused exemption provisions or provisions which make the administration of the tax structure complex and complicated. Finally, an attempt is made to prepare a comprehensive index of the revenue performance of the governmental unit concerned. The methods enumerated above adopt a variety of techniques of different nature—some use rudimentary techniques while others follow advanced techniques—and provide specific results. These are explained below:

#### **Growth Rate**

An important and widely used measure for performance of revenue is to estimate its growth rate. This may be estimated with reference to the preceding year or with reference to the preceding time period. When it is estimated with reference to the last year, it is calculated as percent change over the year. This is calculated as  $\frac{\Delta R}{R}$  where  $\Delta$  represents change over last year and R stands for revenue collections. In this method we take a ratio of change in revenue in the current year over the total revenue of the last year.

When the growth rate is estimated over a period of time, the trend rate is calculated through regression technique by fitting the following relationship:

$$R = a b^t,$$

where  $b = (1 + r)$ ,  $b$  is the value of growth character of  $R$ , and  $t$  varies from 1 to  $n$ . Growth rate calculated through the regression technique estimates compound growth rate.

This is the simplest method of measuring revenue performance. This could provide estimates for the total revenue or for individual components of revenue. However, its significance is limited in analyzing the causal relationship that suggests as to which variables have contributed in growth. This is especially true of variables such as price change, tax effort or variations in GDP which affect the growth rate.

### **Buoyancy of Revenue**

Another way of measuring relative growth of revenue is to compute percentage change in revenue that has taken place for a one-percent change in GDP. Such a measure is known as buoyancy or income-elasticity of revenue. Buoyancy is a measure of responsiveness (of the tax or any revenue measure) to the changes in base (such as income), including the effects of changes in the structure of the tax. Income-elasticity refers to a change in revenue without any discretionary changes in the rate, base or coverage of the tax structure. It assumes the tax base to be constant.<sup>3</sup>

While the growth rate method estimates revenue performance independent of any other factor that might contribute to growth, buoyancy is judged in relation to the independent quantifiable economic variables (such as national income or GDP). Buoyancy relates growth rate of revenue to the growth of the base of the revenue sources, which is normally GDP. It attributes growth rate of revenue to the responsiveness of the revenue base (i.e., normal automatic growth in revenue due to the growth in the base). The

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<sup>3</sup> See Purohit, Mahesh C. 1978. "Buoyancy and Income Elasticity of State Taxes in India." *Artha Vijnana* 20: 244-287 and Sahota, G. S. 1961. *Indian Tax Structure and Economic Development*. Institute of Economic Growth, Delhi.

buoyancy of a revenue source with respect to its base shows the ratio of relative change in the base. It is computed as a percentage change in revenue, *vis a vis*, a one-percent change in GDP (or the base of the revenue). Symbolically, this could be expressed as:  $\frac{\Delta R}{R} \div \frac{\Delta Y}{Y}$ . If this coefficient comes out to be greater than unity, revenue is said to be buoyant. The revenue performance of the governmental unit is supposed to be productive giving higher yield as GDP grows.

The functional form used to measure buoyancy is of the type:

$$R = a Y^b.$$

When this exponential form is transformed into a logarithmic form it changes as:

$$\begin{aligned} \text{Log } R &= \text{Log } a + b \text{ Log } Y, \\ \text{where } R &= \text{revenue, } Y = \text{GDP and} \\ & b = \text{buoyancy coefficient.} \end{aligned}$$

The above relationship shows percentage change in revenue with respect to percentage change in GDP.

### **Relative Revenue Effort**

While a higher coefficient of buoyancy indicates that the relative growth of the yield from revenue has been good, it is important that one examines if this is owing to higher effort of a government to mobilize resources. Revenue performance would be considered better in a country that puts higher efforts in comparison to given resources.

Revenue effort is measured through an ordinal concept of relative effort. In this approach, revenue performance of a governmental unit is judged against the average performance of its counterparts, after making due allowance for variations in factors affecting their revenue effort. The revenue effort measure is thus concerned with comparing actual performance of governments in raising the revenue against their estimated capacity. Also, the revenue effort of a nation largely determines the scope for increase in the level of revenue in that particular governmental unit.

The relative revenue effort could be measured by two methods. These are stochastic and non-stochastic. The stochastic method is a derivative of the revenue ratio analysis wherein the revenue ratios ( $R_y$ ), defined as the ratio of total actual revenue collection (R) to gross national product (Y). Revenue efforts of various countries, at a point of time, are

systematically related to the factors affecting their taxable capacity. That is,

$$R/Y = f(X_1, X_2, X_3, \dots, X_n),$$

Where  $X_i$  are the factors affecting revenue generating capacity. These factors need not necessarily be the revenue base. The index of revenue effort (E) based on the revenue generating capacity and revenue effort is measured as a proportion of actual and estimated revenue ratios, as shown below:

$$E = R_y / R^*_y.$$

Where  $R_y$  = actual revenue and

$R^*_y$  = estimated revenue.

The index of revenue effort, as derived above, reflects the extent to which the revenue generating capacity of a country has been exploited by the concerned government.

One way of measuring revenue effort is to estimate average degree of relationship between revenue ratios in different countries and their revenue generating capacities. This could be worked out through regression. The resultant revenue ratios would represent the ratio, which a country would have had if it used its capacity to an average extent. Comparison of the estimated ratio with the actual revenue ratio will indicate whether the country concerned is making the average degree of effort or showing positive or negative deviations from the average.

From the above equation, the index of revenue effort can be expressed as a ratio of actual revenue collection to the potential revenue collection that would have been expected given the country's capacity at an average level of raising revenue.

For carrying out this exercise, a number of factors are selected which *a priori* could be important indicators of revenue generating capacity. Such factors are:

- gross national product
- population
- proportion of income from industrial and commercial sectors to total state domestic product, and
- degree of urbanization.

These factors could be incorporated in the relationship given below:

$$R/Y = \alpha + b_1 Y/P + b_2 U_i$$

Where Y/P = per capita income  
U = degree of urbanization.  
and b = estimate of coefficient.

Empirical studies indicate that when we relate all the capacity factors to the total income ratio, per capita income comes out to be an important factor along with urbanization. It explains most of the variations.

A different method to estimate relative effort is based on the measurement of the extent of revenue potential of a country. One could also use the approach of effective rate of raising resources through tax or non-tax sources. In so doing, one could derive the revenue potential by applying the average effective rates to the potential base in each country.

### **Performance Index**

While coefficients of growth rate, or buoyancy or revenue effort indicate performance of revenue by a national or sub-national government, it is difficult to assimilate them. Sometimes the results drawn from growth rate could be different from those derived from buoyancy or from revenue effort. It is, therefore, important to prepare a comprehensive index to estimate revenue performance of a country.

In preparing such an index, one could use a variety of variables, such as, changes in:

- gross domestic product
- population
- real per capita tax revenue
- tax revenue
- composition of taxes
- non-tax revenue
- real per capita revenue
- changes in tax structure of direct and indirect taxes
- top personal income tax rate
- openness of the economy
- top corporate income tax rate, and
- top sales tax/VAT rates.

Using such indicators, the Fraser Institute has attempted to estimate fiscal performance index for Canadian Provinces. The

revenue sub-index is composed of 10 variables.<sup>4</sup> The methodology has been derived from a US study conducted by the CATO Institute on the fiscal performance of 46 American governors.<sup>5</sup>

The index prepared on the basis of above variables requires assignment of weights to different variables. The weights being subjective, any change in the weights would also change the index.

### **Principal Component Method**

To avoid subjective judgment and assigning of weights, it is possible to use the entire set of variables through the method of principal components. This method takes into account all the indicator variables related to the performance of revenue.

With a view to examining causal relationship of revenue realized and the factors affecting its growth, the revenue performance model is given by the relationship:

$$rp = f(x)$$

Where, rp = revenue performance and  
X = composite vector of causal variables.

In the above framework, it is clear that the revenue performance is a composite variable consisting of several components. Sales tax revenue, for example, is affected by the components of GNP related to trade and manufacturing sector. Similarly, agricultural income tax has a direct bearing on agriculture component of the GDP and the number of motor vehicles registered in the state directly affects tax on passengers and goods as well as taxes on motor vehicles.

In addition, through revenue effort, a country could evolve changes in its rates or the base of the taxes and the governance of taxes. All these factors contribute considerably to the performance of revenue, which are intimately interconnected. It is rather impossible to isolate the effect of each one of the variables on the revenue performance. This paradox makes the system very complex. It is important to maintain the identity of the individual variables because the

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<sup>4</sup> See Emes, Joel. 1999. *Fiscal Performance Index, 1999*. Vancouver, B.C., Canada: Fraser Institute.

<sup>5</sup> See Moore, Stephen and Dean Stansel. "A Fiscal Policy Report Card on America's Governors: 1998." *Policy Analysis* No. 315, September 3, 1998. Washington, D.C.: The CATO Institute.

policies to mobilize resources would have to be geared towards each of the variables, when a particular country is interested in raising its revenue.

The method of principal components helps one to study the combined impact of such variables. It is a special case of the more general method of factor analysis.<sup>6</sup> Its aim is to construct out of a set of variables  $x_j$ s ( $j = 1, 2, \dots, k$ ), some new variables ( $p$ ) called principal components, which are linear combinations of the  $x$ 's i.e.

$$z_j = a_{j1}x_1 + a_{j2}x_2 + \dots + a_{jk}x_k$$

where  $j = 1, 2, \dots, p$ , and  
 $p \leq k$ .

The method could be applied by using the original values of the  $x_j$ s or their deviations (loadings) from their means  $x_j - \bar{x}_j$ , or the standardized variables (measured as the deviations of the  $x_j$  from the means and subsequently divided by the standard deviations; ( $z_j = x_j / s_{x_j}$ )). For the sake of convenience one could use the latter method, which is a more general method (being a unit free number), and could be applied to variables measured in different units.

### **Data Base and Empirical Estimates**

With the idea of presenting illustrative results of revenue performance of national and sub-national governments, this paper covers a study of 34 developing countries.

In doing so it uses data for the selected countries on gross national product, trade balance as well as population for the period 1992 to 1998 for 34 countries. It is based on *International Financial Statistics* brought out by the IMF. Data on total tax revenue as well as non-tax revenue have been collected from *Government Finance Statistics Yearbook* of the IMF. The system of common definitions and classification found in the *Manual on Government Finance Statistics* by the IMF has been used for each country.

Revenue performance of 34 developing countries has been measured with the help of each of the methods enumerated in the earlier part of the paper. These include growth rate,

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<sup>6</sup> See for details, Koutsoyiannis, A. 1979. *Theory of Econometrics*. London: Macmillan, pp. 424-436.

buoyancy and the method of principal components. The results of each of the methods have been presented in table 1.

It can be observed from the result that growth rate of developing countries could be classified in three groups. Six countries have recorded growth rate of less than 10 percent, 18 have recorded 10 to 20 percent and another 10 countries have achieved above 20 percent growth in revenue. This indicates good performance of majority of the developing countries. On the same pattern, results of buoyancy of revenue indicate that the buoyancy coefficient is more than unity in 19 countries. It is in fact equally distributed among countries having coefficient higher than one and countries having coefficient lower than one. The method of principal components applied to different countries using variables such as total revenue, population, gross national product, and trade-balance (reflecting openness of the economies) has indicated that in majority of the countries the variations is being explained by the first component.

### **Summary of Conclusions and Policy Prescriptions**

Performance of revenue denotes the relative change in the yield from tax as well as non-tax sources. It encompasses changes in rates, base and governance of revenue measures.

Performance is said to be satisfactory if the given revenue sources provide increasing revenue year after year. While the magnitude of revenue depends on the performance of each source, the structure of direct and indirect taxes also affect the overall performance. It also depends upon how best the potential revenue bases have been tapped through the effort of raising revenue of a country. Various methods are used in measuring revenue performance.

One of the important methods is to estimate the growth rate of revenue. It could provide estimates for the total revenue or for individual components of revenue. A straightforward way of obtaining a measure of relative growth is to compute the percentage change in revenue that has taken place for one-percent change in revenue base. Such a measure is known as buoyancy or income -elasticity of revenue. In general, buoyancy refers to growth rate of revenue (or the responsiveness) to the tax base (i.e., automatic growth in revenue as a result of the growth in the base).



A different method for estimating revenue performance is to calculate relative revenue effort of a country. This method is concerned with comparing actual performance of governments in raising the actual revenue against their estimated capacity. One of the ways of measuring revenue effort is to estimate average degree of relationship between revenue ratios in different governmental units and their capacity to generate resources. One could also use the approach of effective rate of raising resources through tax or non-tax measures.

Another method is to prepare a comprehensive index to estimate revenue performance of a government. In preparing such an index, a variety of variables can be used. These include changes in income, population, real per capita tax revenue, tax revenue, composition of taxes, non-tax revenue, real per capita revenue, changes in tax structure of direct and indirect taxes, top personal income tax rate, top corporate income tax rates, sales tax rates, gas rate and urbanization. On the basis of all these variables an index could be prepared. This, however, requires assignment of weights to different variables. The weights being subjective, by changing the weights, the index could also be changed.

To avoid subjective judgment and assigning weights, it is possible to use the entire set of variables through the method of principal components. This method takes into account all the causal variables related to performance of revenue. In this framework, the revenue performance is a composite variable consisting of several components. It is important to maintain the identity of the individual variables because the policies to mobilize resources would have to be geared towards each of the variables, when a particular government is interested in raising its revenue.

The method of principal components helps one to study the combined impact of such variables. For the sake of convenience one could use this method, which is a more general method (being a unit free number) and could be applied to variables measured in different units.

The results presented in the study are based on a comparative picture of 34 developing countries across the globe. The results suggest that a similar exercise could be attempted for any single country or its sub-national governments. Also, it suggests that one could use a variety of variables in preparing index for revenue performance.

**Table 1: Revenue Performance of Selected Developing Countries**

<b>Country</b>	<b>Growth Rate</b>	<b>Buoyancy</b>	<b>MPC*</b>
Bolivia	19.1	1.22	88.7
Botswana	11.8	0.84	77.9
Burundi	3.2	0.34	86.4
Cameroon	-4.0	0.30	74.6
Chile	17.9	1.06	81.4
China	31.1	1.08	96.5
Colombia	29.3	0.94	95.1
Congo Dem.	11.1	0.10	79.0
Costa Rica	26.3	1.08	72.4
Croatia	33.7	0.82	67.4
Dominican	18.4	1.16	96.1
Egypt	17.6	1.13	92.5
Estonia	29.7	1.08	75.5
Hungary	18.4	0.82	80.8
Indonesia	18.5	1.03	89.1
Iran	42.9	1.25	57.3
Jordan	12.4	1.26	72.1
Kenya	21.7	1.17	93.8
Madagascar	17.5	0.81	75.5
Malaysia	9.9	0.89	95.6
Mauritius	10.3	0.83	91.8
Mexico	22.1	0.97	73.1
Morocco	9.3	1.39	84.1
Nepal	19.8	1.46	82.8
Panama	5.1	1.12	76.7
Pakistan	14.5	0.35	77.3
Peru	33.7	0.53	96.6
Philippines	15.0	1.19	77.4
Sierra Leone	24.7	1.34	95.3
South-Africa	13.5	0.90	75.0
Sri Lanka	13.3	0.25	87.9
Syria	17.3	1.03	87.9
Thailand	12.0	1.10	89.4
Tunisia	9.9	0.99	74.2

Note: \* refers to principal component method.

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# 4

## EVALUATING PUBLIC EXPENDITURES: DOES IT MATTER HOW THEY ARE FINANCED?

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Economic analysis and popular opinion often conflict. An example is the connection between the revenues and expenditures of the public sector. Common sense suggests that there should be a strong and logical connection between the two sides of the budget. For example, if an average citizen in any country is asked what he or she thinks about the desirability of a particular expenditure increase, the answer is often related to how the respondent thinks the increase will be financed. Similarly, while most people do not like tax increases, again their attitudes seem likely to depend to at least some extent upon what they think will be financed.<sup>1</sup> People are right. Revenues and expenditures are inextricably linked. Indeed, as Musgrave (1969) has long emphasized, “a theory of public finance remains unsatisfactory unless it comprises both the revenue and expenditure sides of the fiscal process (p. 797).” Nonetheless, despite this admonition, and despite common sense, traditionally most formal economic analysis of either tax or expenditure changes has been conducted under the assumption that there is no connection between what happens on one side of the budget account and what happens on the other side. This paper explores a few of the issues that arise when we take seriously the need to consider both sides of the budget when evaluating public expenditures.

There are, of course, excellent reasons why economists operate the way they do. Life is complicated. The only way

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<sup>1</sup> Politicians are, of course, well aware of this connection, as evidenced by the many taxes that have been implemented over the years by tagging them with such ‘good’ names as health, education, and defense.

one can begin to make sense of it is to take that complexity apart in some logical way and to analyze it piece by piece. It would be far too confusing, for example, to analyze the incidence of an increase in the income tax taking into account also the distributive effects of the expenditures assumed to be financed by the new revenues. The combined incidence of the tax and expenditure changes (“balanced-budget incidence”) would obviously differ depending upon the nature of the expenditures financed and might tell us little about the effects of the tax change alone if the latter is our primary interest.<sup>2</sup> Matters would be even more complicated if allowance were made for the effects of such budgetary changes on such macroeconomic variables as the rate of inflation (“specific incidence”). For these reasons, following Musgrave (1959), economists concerned with fiscal incidence now commonly analyze what is called the “differential incidence” of tax (and expenditure) changes—that is, the effects on the distribution of income assuming that some other tax is simultaneously altered so as to maintain constant both the real level of revenues and expenditures and the real level of aggregate demand.

In reality, of course, such precise substitutions almost never occur. Real-world tax changes are thus likely to affect the level (and perhaps the composition) of expenditures as well as to have implications for the macroeconomy. Depending upon the nature of the problem being analyzed, all three of the incidence concepts just mentioned might therefore be relevant in analyzing the effects of tax (or expenditure) changes. Specific incidence analysis, for instance, is required to answer questions relating to the distributional impact of tax increases unaccompanied by expenditure increases or measures to offset effects on aggregate demand. Similarly, balanced budget incidence analysis is required to analyze the distributional effect of tax increases that finance specified expenditure increases (Break 1974). Nonetheless, since the only tool we have to deal directly with the distributional effects of taxation (or expenditure) alone is the differential incidence concept, it is

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<sup>2</sup> For a strong argument, drawing upon much past thought, that in fact we are and should be mainly interested in the combined effects of tax changes and the related expenditure changes, see Black (1939, chap. 10).

not surprising that this type of analysis dominates the academic literature on tax incidence.

Even in this case, however, no unique answer emerges since, by definition, what differential incidence does is to compare the distributional effects of any particular change with some other change. The results will thus depend upon the nature of the change with which it is compared. One might perhaps think of comparing any tax change with a precisely offsetting change in an equal yield set of perfectly neutral taxes (“lump-sum taxes”) that affect neither distribution nor allocative decisions. Since no such set of taxes can exist, however, in practice differential incidence analysis is usually carried out by comparing a proposed change in taxes (or transfers) to an equal-yield change in a comprehensive proportional income tax (or occasionally, as in Shoup 1969), some other general levy such as a uniform value-added tax). Despite the many conceptual and empirical problems with such analysis, it is the best we can do—and so that is what we do.

Analogous problems arise in analyzing the effects on allocative efficiency of alternative ways of financing public expenditures. Unsurprisingly, in the traditional economic literature these problems have been resolved, to the extent they have been resolved at all, in a similar fashion—although in this case, unlike that of incidence analysis, most analysts seem to have fewer qualms about positing the existence of an alternative “perfectly efficient” tax system. I shall first consider briefly the orthodox treatment of financing in evaluating public expenditures, and then note a few questions that have been raised about both the conceptual and empirical application of this approach. In the balance of the paper I will then review several issues that should be considered with respect to how particular public expenditures are or might be financed. Although no clear general guidelines emerge from this review, it is nonetheless apparent that in many instances these matters are too critical to be neglected and that more explicit consideration of the relevant fiscal institutions will, in this as in other areas of public policy, generally improve analysis. This point is developed briefly in the final section of the paper.

### **The Orthodox Tradition**

The formal analysis of the marginal cost of public funds began with Pigou (1928) who noted that public expenditure “...ought plainly to be regulated with some reference to the burden involved in raising funds to finance them” (p. 30). In a famous quotation very much in the utilitarian spirit he went on to say that “If a community were literally a unitary being, with the government as its brain, expenditure should be pushed in all directions up to the point at which the satisfaction obtained from the last shilling expended is equal to the satisfaction lost in respect to the last shilling called up on government service” (p. 31). Of course, as Pigou recognized, no community *is* a unitary being in this sense. Governments must thus in practice extract resources coercively through taxation. The costs of doing so—both the administrative and compliance costs and the excess burden or deadweight loss of taxation—ought, he argued, to be taken explicitly into account in determining the appropriate level of public expenditure (pp. 33-34).

It has thus long been clearly understood that whether or not a particular expenditure is worthwhile depends to some extent upon how it is financed. In particular, since as a rule the economic cost of raising public funds will be larger than the number of tax dollars raised, the optimal size of the public budget is less than it would be with a more efficient tax system. This message is found in many modern texts in public finance. For example, Cullis and Jones (1992, p. 199) note that “failure of policy-makers to appreciate the full costs of taxation...will lead to ‘excessive’ government expenditure.” Stiglitz (2000, p. 148) concurs, saying that “since it becomes more costly to obtain public goods when taxation imposes distortions, normally this will imply that the efficient level of public goods is smaller than it would have been with nondistortionary taxation.” “Indeed,” Stiglitz continues, “it appears that much of the debate about the desirable level of public goods provision centers around this issue. Some believe that the distortions associated with the tax system are not very great, while others contend that the cost of

attempting to raise additional revenues for public goods is great (pp. 148-149).”<sup>3</sup>

Serious empirical attempts to determine the costs of taxation began with Harberger (1964) and were subsequently extended by Browning (1976) and numerous others. While it is by no means easy to determine the precise relation between the many estimates produced over the years by different authors, Ballard and Fullerton (1992) have usefully distinguished between two related but distinct approaches. The first approach they call the Pigou-Harberger-Browning (PHB) approach to estimating the marginal cost of public funds (MCF). The alternative approach, favored by the more theoretically-inclined, was launched by Stiglitz and Dasgupta (1971) and developed further by Atkinson and Stern (1974). As Ballard and Fullerton (1992) note, although they employ different terminology, each of these approaches essentially estimates the same thing but assumes, in effect, that a different sort of public expenditure is being financed. The traditional (PHB) approach assumes that the public goods provided will compensate consumers so that only substitution effects remain, while the more modern approach—to use the terminology of Brent (1996, chap. 9)—allows for the income effect of the public good but assumes it has no effect on labor supply. In reality, of course, both income effects and effects on labor supply often accompany fiscal changes, so in principle “the MCF ultimately depends not just on the tax, but also on the nature of the government expenditure under consideration” (Ballard and Fullerton 1992, p. 125).

Despite such observations, however, the orthodox tradition has continued to focus solely on the excess burden imposed by taxation. Moreover, the numbers reported in MCF studies have tended to creep up over time. Ballard, Shoven, and Whalley (1985), for example, came up with a range of MCF estimates for the United States ranging from \$1.17 to \$1.56 for each dollar of revenue raised. Employing a different methodology, Browning (1987) estimated an MCF between \$1.10 and \$4.00 per dollar of marginal revenue. A recent

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<sup>3</sup> Interestingly, despite the apparent importance he attaches to this question, Stiglitz (2000) nowhere in the 800 pages of his textbook refers to the many quantitative studies that have been made of these distortion costs for the U.S.



review and summary by Feldstein (1997) of the extensive subsequent literature estimating the distortionary costs of taxation in the U.S. concludes that “the total cost per incremental dollar of government spending, including the revenue and the deadweight loss, is thus a very high \$2.65. Equivalently, it implies that the marginal distortionary costs per dollar of revenue are \$1.65” (p. 211). In another recent survey, Diewert, Lawrence, and Thompson (1998) suggest, somewhat more modestly, that an MCF of at least 23 percent should be added to the monetary costs of tax-financed government spending.

Interestingly, although to some extent the initial impetus for much of this work was intended, in line with Pigou’s initial observation, to provide a basis for evaluating whether a particular increase in expenditure was worthwhile, over time estimates of the marginal social cost of taxation have come to be considered primarily in the context of tax policy reform (for example, in Myles 1995, pp. 190-92). For example, the most detailed studies of the deadweight losses of taxation in developing countries have been developed almost entirely in this context (Newbery and Stern 1987, Ahmad and Stern 1991).<sup>4</sup> Perhaps for this reason, for the most part the estimated marginal costs of public funds have not been explicitly factored into cost-benefit or project evaluation exercises. Instead, in most treatments of cost-benefit analysis (as in Dinwiddy and Teal 1996, for example) attention has been focused on the related, but distinct, question of the social opportunity cost of capital—an approach which focuses not on the MCF but rather on the intertemporal consequences of withdrawing resources from private consumption and investment, respectively.<sup>5</sup>

If capital markets are perfect and government and private discount rates are the same, the source of finance will be irrelevant since the opportunity cost of the resources used for

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<sup>4</sup> For a recent review of this literature, see Auriol and Walters [2001] who note the extreme variability of the estimates.

<sup>5</sup> For example, Drèze and Stern (1987, p. 931) explicitly say that “when projects are financed out of general revenue...it is not necessary to consider separately how individual projects are financed” although they go on to note that if there are earmarked taxes explicit “side constraints” should be introduced into the model.

any project will be the same in any case. But if discount rates differ, as many have argued they do (and should), or if capital markets are less than perfect, as is invariably the case in developing countries, this is no longer true. In general, therefore, it seems plausible that the costs of finance will be greater when the resources used for public purposes would otherwise have been invested. Moreover, these costs will vary depending upon both the precise investments displaced and the nature of the expenditure. From this perspective, as Musgrave (1969) noted, loan-financed projects would as a rule appear to be more costly than tax-financed projects since they are more likely to displace private investment. In any case, just how expenditures are financed—through loans or taxes (and what kind of taxes)—will thus determine to some extent whether and to what extent private consumption or investment is displaced.

Although this is not the place to review this complex subject,<sup>6</sup> it is essentially different views on this issue that have led different authors to advocate different guidelines as to how the opportunity cost of public investment and the discount rate should be determined. To this extent at least, linkages between the nature of revenues and the desirability of expenditures have traditionally been taken into account in project analysis. Nonetheless, on the whole it seems fair in practice to say that the usual assumption in expenditure analysis has been simply to take the revenue side as given. In particular, despite the origins of much of this discussion in Pigou's early treatment, and despite the numerous estimates that have been made in other contexts of the marginal cost of public funds, it has not been usual in assessing expenditures to take explicit account, in the previously-quoted words of Pigou (1928), of "the burden involved in raising funds to finance them."

Traditionally, perhaps the main concrete recognition of this point in expenditure analysis has been the common assumption that investment projects will be financed, and should be financed, by loan finance.<sup>7</sup> As Musgrave (1997) has

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<sup>6</sup> Useful recent reviews may be found, for example, in Layard and Glaister (1994) and Boardman and Greenberg (1998).

<sup>7</sup> This argument, of course, predates the so-called "Ricardian equivalence" view popularized by Barro (1974) which asserts that

argued, if people are to be able to make rational fiscal decisions, they need to be able to compare the benefits and costs of such decisions, which means they have to take into account both the expenditures to be carried out and the way in which they are financed. If the expenditure in question is one that will yield a future stream of benefits—that is, an investment in either physical or human capital—it would be rational for a private individual to borrow to finance it. The same is true for a society, so the use of loan finance for public capital formation—along with procedures such as capital budgeting to make the linkage clear—has much to be said for it as a means of ensuring that the political process through which public goods are provided yields the desired time path of total (public plus private) consumption.

Although, as with many sound ideas, the actual practice of such separate budgeting has left much to be desired, the principle seems sound: finance public consumption by taxes and public investment by loans, and keep the two separate. Nonetheless, separate capital budgets have long been out of favor with budgetary experts. As Premchand (1993, p. 292) noted, most experts consider capital budgeting to be “an anachronism.” More recently, however, the same author has said that even “countries and governments hitherto critical of capital budgets now see advantages in them” (Premchand 1998, p. 336) and suggested that “...the existence of a separate capital budget may prove to be a handy asset” (p. 353). Although the prevailing orthodoxy remains very much against such budgets (World Bank 1998, p. 53), there is much to be said for this argument, just as, to the extent that the expenditure projects being analyzed may properly be considered to constitute “investment,” there is much to be said for the traditional procedure in cost-benefit analysis of treating the source of financing as a loan – even, in the case of many developing countries, a loan from foreign sources.

Recently, however, Devarajan, Squire, and Suthiwart-Narueput (1996, 1997) [hereafter cited as DSS] have

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rational individuals should be indifferent between tax and loan finance since the present value of the debt burden under loan finance is precisely equal to the taxes they would otherwise be assessed. The demanding assumptions required to achieve this equivalence seem most unlikely to hold in any developing country, or perhaps in any country.

introduced a new element into the traditional mix by arguing strongly for explicitly taking into account the marginal social cost of public funds in evaluating projects that call for net flows of budgetary funds. They illustrate this point by citing as a minimal correction the lowest estimate for the U.S. in the Ballard, Shoven, and Whalley (1985) paper, of an MCF of \$1.17, noting that this cost is likely to be higher in developing countries with more limited, and generally more distorting, tax systems.<sup>8</sup> Unless such a “shadow price of public finance” (Squire 1989, p. 1122) is explicitly included in the evaluation of public expenditure projects, they argue, the net present value of such projects will be systematically overvalued and hence, as suggested by the textbook wisdom cited earlier, the public sector will be inappropriately expanded. Their conclusion on this point is worth reproducing in full:

“When...fiscal cost arises from an expansion in supply beyond what would have been forthcoming from the private sector, it represents the price that society has to pay to reap the benefits underlying the rationale for public intervention. If the government is not charging the maximum amount that the private sector is willing to pay, there is an additional fiscal cost – a *transfer*. Both the expansion and the transfer constitute additional burdens on the budget. To the extent that governments have to rely on (distortionary) taxation, raising the required revenue will entail real costs. These costs, as well as the marginal cost of public funds, need to be incorporated in project appraisal wherever possible” (DSS 1997, p. 45).

At least four aspects of this conclusion are worth singling out:

- 1) Public expenditure may have a sound rationale in terms of providing benefits that would not otherwise be forthcoming, but it still gives rise to a fiscal cost.
- 2) This fiscal cost will be higher if correct user prices are not charged.
- 3) Raising additional funds is itself costly.

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<sup>8</sup> The taxes on trade that dominate revenue systems in many smaller developing countries, for example, are generally highly distorting, as argued long ago by Dasgupta and Stiglitz (1974). In an earlier paper, DSS (1996, p. 47) instead cited the estimates from Browning (1987). It is not clear if the change to the alternatively derived estimates in the later paper reflects any preference for one method of estimating MCF over another.

- 4) Both these costs and the costs imposed by distortionary taxes need to be taken into account in appraising public expenditures.

All these points may be found in Pigou (1928), so it appears that we have, in a sense, closed the circle and once more explicitly linked the evaluation of public expenditures to their financing. What is particularly interesting about the recent revival of this approach, however, is that Harberger (1997), long an advocate of the standard convention of much cost-benefit analysis of assuming that the marginal source of funds is borrowing in the capital market—which meant in practice, as noted above, that the issue was essentially dealt with in terms of the discount rate—has now also explicitly accepted this case for applying at least a minimal “shadow price of fiscal funds” to all cash flows to and from governments. It thus now seems to be widely accepted among leading practitioners of project evaluation that, in the words of Boadway and Bruce (1984, p. 306) “...the deadweight loss due to the financing.... should be included as one of the costs of introducing the project.” Theory and practice now seem to agree.

Before exploring this apparent meeting of the minds further, however, it may be interesting to note how at least some World Bank-sponsored analysis of this matter has evolved over the years. In the early heyday of “planning”, when, in the words of Kirkpatrick and Weiss (1996, p. 10) governments were still seen as “engines of development.” Adler (1964), for example, argued in effect for exactly the opposite correction in the sense of attaching additional weight to expenditures that would generate increased public revenues. While this “production principle of public finance,” as he called it was primarily stated in terms of increased output (p. 40), he explicitly noted also that projects that yielded larger revenue “feed-back” were to be preferred if it could be presumed, as he seemed prepared to do, that the additional revenue would be used for further productivity-enhancing public expenditure (p. 48).<sup>9</sup> In other words, public revenue was held to be

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<sup>9</sup> As Brent (1996, p. 213) notes, the usual approach neglects revenue feedback by assuming—sometimes explicitly, as in Mayshar (1990)—that there is none. But this assumption of course need not accord with reality. As Brent goes on to note (p. 224) to the extent that some benefits accrue to government as additional revenue, they could be said to

important because there was thought to be a “public savings constraint” that made additional dollars of public income more valuable than additional private consumption. Along these lines, Squire and van der Tak (1975) explicitly assumed that an additional dollar of government revenue was as valuable as an additional dollar of private savings. While to a limited extent such arguments are sometimes seen at the macro level—consider, for example, the treatment of the public savings constraint—in yet another instance of the discord between the macro and micro treatments of public finance highlighted by Musgrave (1997) such notions appear long ago to have vanished from traditional expenditure evaluation techniques.<sup>10</sup>

Before accepting the recent revival of the MCF factor in project analysis, several important considerations need to be discussed further:

- What precisely is to be included in the “social marginal cost of public funds”? Is it just deadweight losses (as in Feldstein 1997)? Should it include also administrative costs (as in Pigou 1928, and as implied in the preceding quotation from DSS 1997)? Should it be expanded further to include a variety of other costs involved in raising public revenues (Usher 1991)?
- No matter how the MCF is defined, it is clearly not a fixed number independent of how a particular project is financed. While if taxes were set optimally, MCF would be the same for all tax sources, in fact, as Ahmad and Stern (1987, 1991) demonstrate in detail for India and Pakistan, MCF may vary considerably from tax to tax and may even be less than one (whether or not distributional weighting is used). As Brent (1996, p. 229) notes, it is therefore critical to assume either that the “marginal” expenditure will be financed in the

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produce an ‘excess benefit’ by permitting tax rate reductions and hence a reduction in distortionary costs. This point is of course similar to that made by DSS (1996) with respect to user charges.

<sup>10</sup> Nonetheless, DSS (1996) somewhat curiously use the old terminology of a “premium” on public income, although they clearly state that such a “premium” attaches only to revenue from (properly-designed) pricing and measure it by the distortionary tax costs avoided. DSS (1997) avoid the resulting confusion—see, for example, the comments in Kirkpatrick and Weiss (1996, p.10)—by emphasizing instead the MCF.

same way as the “average” expenditure is now financed—which is what DSS (1997) appear to suggest—or to make some other explicit assumption about the source of finance (such as the traditional assumption associated with Harberger (1972) that the funds will be borrowed).

- What if the expenditures being considered are funded from taxes that are not distorting (Ng 2000)? Or from user charges (DSS 1997)? Or debt (Feldstein 1972)? Or from earmarked taxes (Drèze and Stern 1987, p. 931, Squire 1989, p. 1113) or other specified taxes, such as those levied by local governments (Stiglitz 1994, p. 120)? Even apart from such specific cases, the tenor of most recent discussion is clearly that, as Brent (1996, p. 230) says, the traditional view (found, for example, in DSS 1997) is that the shadow price of public funds obtained by raising taxes—the MCF—“...*must be* greater than 1; while in the modern approach it *can be* less than 1.” Ballard and Fullerton (1992, p. 129) similarly conclude their summary as follows: “...economists should set aside the apparent presumption that the marginal benefits of a tax-financed public good must exceed its dollar cost.”
- Finally, is it correct to treat the efficiency costs of public revenues as a cost without taking into account any distributional benefits that may be associated with such costs (Kaplow 1996)?

The balance of this paper considers these and some related points. It concludes with a brief consideration of the importance of fiscal institutions that link expenditures and revenues in determining fiscal efficiency.

### **The Marginal Cost of Public Funds**

Most real-world tax systems impose distortionary costs. As Feldstein (1997) notes taxes may: (1) reduce the supply of labor, (2) reduce the supply of capital, (3) induce the substitution of untaxed fringe benefits for cash income, and (4) induce more spending on tax deductible items such as charity and health care. Extending this list, Usher (1991) adds such other “hidden costs” as: (5) the overhead costs of tax collection and provision of services, (6) the concealment

costs incurred in tax, and (7) the enforcement costs of dealing with these problems and constraining corruption.<sup>11</sup> As Usher (1991) notes, all of these latter costs are likely to be higher in countries with less developed public administrations. On the other hand, as Diewert, Lawrence, and Thompson (1998) point out, the deadweight loss of taxes is of course highest when behavioral responses are the highest, which may suggest, in the more fragmented markets characterizing developing countries that, despite the more distortionary (less general) nature of the prevalent tax systems in such countries, the MCF might nonetheless be lower than would otherwise be expected. Nonetheless, as Ahmad and Stern (1987, 1991) demonstrate in detail for India and Pakistan, it is still likely to be quite high in developing countries.

Most studies of MCF, like Feldstein (1997), focus mainly or exclusively on the deadweight losses associated with distortionary taxes. Sometimes, as noted in both Pigou's (1928) original discussion and in the recent paper by DSS (1997), mention is also made of administrative and compliance costs, but that is about as far as it goes. Alm (1999), like Usher (1986, 1991), emphasizes the importance of incorporating evasion costs and Das-Gupta and Mookherjee (1998) consider compliance and enforcement issues in detail, but on the whole, few attempts have been made to incorporate such costs – including of course the additional excess burdens associated with them (Collard 1989)—into any formal analysis. This omission is less surprising than may appear at first, however, because of the fact that there have been surprisingly few empirical studies of such costs (Sandford 1995) and almost none for developing countries, apart from the work of Das-Gupta and Mookherjee (1998).

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<sup>11</sup> Although these matters are not discussed further here, it should perhaps be noted that there is considerable dispute in the scanty literature that has considered such matters as to the extent to which the welfare of evaders (or sometimes even avoiders, as in Musgrave 1992), let alone that of corrupt officials, should be taken into account in summing up the net social benefits of policy actions. It is not sufficient in this context simply to distinguish between “pecuniary” transfers and “real” resource costs, because what is at issue is the social evaluation of outcomes and, as noted later, distribution is properly a matter of social concern.



As Ballard and Fullerton (1992) argue, in principle the relevant MCF will depend upon both the particular tax or taxes levied and the expenditures financed. As Atkinson and Stern (1974) demonstrated, for example, an excise tax on a normal commodity will always have a net distortionary effect (since the income and substitution effects reinforce one another), but a tax on wages may (by inducing increases in work effort through its income effect) actually lower the marginal cost of public funds. Similarly, if the public expenditure financed is complementary to taxed activities, such as public transit, it may also increase labor supply and hence reduce the MCF, while if it is a substitute (such as a park) it may reduce work effort and hence increase the MCF. As Kaplow (1996) notes, however, while such effects should, if important, be taken into account in appraising particular expenditures, they do not appear to justify any general adjustment of the MCF used in expenditure analysis.

#### **Are Public Funds Always Costly?**

In fact some have argued that it is always a gross simplification to apply any uniform MCF (or corrective “premium” as DSS (1996, p. 45) call it) to public revenues. Three sorts of revenue may, for example, possess the magic quality of being burdenless. The first is the famous “lump-sum” tax, as famed in theory as costless as it is conventionally assumed to be non-existent in practice. But this is clearly an overstatement. As Ng (1987) has argued—and indeed as Henry George had noted long before—there are of course some taxes that have no substitution effects and hence impose no deadweight cost. Taxes on economic rent or pure profits have this characteristic as do poll taxes (or other lump-sum taxes). Such taxes may not always be considered equitable but they are more widespread than seems normally to be recognized. To some extent at least, for example, taxes on land (Tideman 1994) and, in less than perfect markets, on profits to some extent fall on rents (Mintz and Seade 1991). Moreover, from the perspective of any particular country, taxes that are borne by foreigners—whether exported by monopoly producers or

imposed on the location rents accruing to foreign owners—are similarly burdenless (Bruce 1992).<sup>12</sup>

More importantly, economists have long recognized—at least since Pigou (1920)—that some taxes may correct market distortions by forcing economic agents to take social costs into account and hence improve market efficiency. Ballard and Medema (1991), for example, estimated in a model with pollution that a “Pigouvian” tax internalizing the externality would have an MCF of only 0.73, that is, that each dollar of revenue would produce, as it were, an “excess benefit” of 27 cents. The recent literature on environmental taxation has reinforced recognition of this argument in the form of the so-called “double dividend” of such corrective taxes, namely, that they not only improve the efficiency of resource allocation directly but may also do so indirectly to the extent the revenues they yield enable more distorting taxes to be reduced (Goulder 1995). In this case, since the marginal social cost of public funds raised by such taxes is not positive but negative, the implication would appear to be, in line with the Pigouvian principle stated initially, that an *expansion* of public sector activity might be warranted. Ng (2000) thus concludes, for this and other reasons, that “the usual method of estimating the optimal level of public spending (equating the sum of individual marginal evaluations to the marginal cost, *with or without taking into account the distortionary costs of taxation*) is likely to lead to a sub-optimal level [italics added].”<sup>13</sup>

Finally, since no tax system in the world is now “optimal,” it follows that in any country there are many possible tax changes that would reduce distortion and hence lower the MCF. Ahmad and Stern (1987, 1991), for example, provide detailed quantitative estimates of the potential efficiency gains

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<sup>12</sup> Starrett (1988, p. 188) notes, for example, that if governments can export taxes, the MCF may be less than one.

<sup>13</sup> As Sandmo (2001) shows, however, it is far from clear that “green taxes” yield an MCF less than one even if they are the only source of funds. Sandmo correctly argues that in general the implications of externality-correcting taxes for the MCF depend crucially on the nature of the interaction of markets. It should be noted, however, that the explicit concern of his interesting argument is to define the MCF so that it is the same for all projects (with public goods elements) funded from general tax finance. This is of course not the perspective taken in the present paper.

from reforming the tax systems of India and Pakistan. A tax change that would both produce revenue and reduce efficiency losses in many countries would be to abolish or reduce tax incentives that distort investment and savings choices. Fullerton and Henderson (1989), for instance, estimated that reducing the investment tax credit in the U.S. would have an MCF of only 0.62. As Kaplow (1998, p. 124) puts it: “If we finance a public good, say, by closing an inefficient tax loophole or reducing an inefficient subsidy, it would be possible that total distortion would be even less than if we used a lump-sum tax.” Considerations such as these led Ballard and Fullerton (1992, p. 129) to conclude that “...economists should set aside the apparent presumption that the marginal benefits of a tax-financed public good must exceed its dollar cost.”

Even those, like DSS (1997) who appear to argue the contrary, also seem to accept that, when expansions in public sector activities are financed by correctly-set user charges, any MCF correction should be applied only to the net burden financed from the public budget. This exclusion of user charge financed expenditure from the world of “shadow pricing” is of course understandable, since, as has often been argued, properly-designed user charges, like any efficient price, by definition give rise to no excess burden or distortion. As Brent (1996, p. 297) puts this argument, “when taxes incur an excess burden over and above the revenue they produce, user fees are an alternative source of funds that could reduce the inefficiency of that taxation. One should therefore expect user fees to be important when the MCF is high.”

Indeed, admittedly with more caution, a similar blessing might be extended even to other sources of finance that, however approximately, establish some meaningful link between those who enjoy the benefits from any public service and those who pay for it. Well-designed earmarked taxes, for example, even when not as strictly linked to the precise usage of a service as a well-designed user charge, may impose smaller efficiency losses on society than non-earmarked taxes (Bird 1997). If one realizes that in many respects good local taxes are similar to earmarked benefit taxes—in that the taxes are paid and the benefits enjoyed by the same group of people—this same line of reasoning would appear to suggest that expenditures financed out of local revenues should, as a

rule, impose smaller deadweight losses than similar expenditures financed out of general revenues (Kaplow 1996). Clearly, neither the earmarking nor the local finance case is as strong as the user charge case since there can be many variations in benefits and burdens *within* the affected groups and hence some distortions exist.<sup>14</sup> Nonetheless, there is a presumption that financing derived from properly-designed local taxes and earmarked benefit taxes implies a lower MCF than general fund financing and that properly-designed user charges imply that the shadow and nominal price of funds is equal.

The key words in this conclusion, however, are “properly designed.” As has recently been emphasized (Thirsk and Bird 1993, Bird 1997, Bird and Tsiopoulos 1997), in practice most user charges and earmarked taxes, even in developed countries, fall far short of this standard. Renzetti (1999), for example, has recently shown with respect to municipal water pricing in Canada that not only does marginal cost exceed price in each of the 77 municipal utilities he examined but that, in addition, as might be expected, the result of this under-pricing was significant over-consumption. One reason for this outcome was the fact that residential water supply was often not metered. Another was the incomplete accounting of costs. And a third was that the pricing rules applied “...have relatively little to do with the economic cost of supplying potable water and treating waste water (p. 699).” The result was that the estimated deadweight loss associated with the user-charge financed provision of water and sewage service was significant, ranging from 0.42 per dollar charged for non-residential water supply to a high of 6.39 for sewage treatment! Since water pricing is one of the most developed forms of user charging in the public sector, and Canada is of course a highly developed country, to expect better results from the actual user charge systems employed in developing countries would seem to be unduly unrealistic.

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<sup>14</sup> Kaplow (1996, p. 519) asserts that this is really a matter of “horizontal inequity” but this seems wrong since it is clearly incorrect to assume that, for example, all those in a locality have equivalent incomes (or utility levels) either before or after the policy change. (For a recent fascinating discussion of the significance of “horizontal equity” see the debate between Kaplow (1989, 1992) and Musgrave (1990, 1993)).

Another serious problem in many countries is that the revenues from even properly-designed user charges are often not explicitly linked through the budgetary process to the expenditures with respect to which they are levied. As Bird and Tsiopoulos (1997) emphasize, such a linkage constitutes an essential institutional feature of any sound user charge. The same might be said of earmarked benefit taxes, as demonstrated in Thirsk and Bird (1993). As hinted earlier with respect to capital budgeting, it thus seems time to rethink the traditional reluctance of budgetary experts to condone such “specific” budgets. The many ills to which such practices admittedly gave rise in the past in some countries should not preclude more careful consideration of more explicit expenditure-revenue linkages in the future. Such linkages may not only be essential to determining good policy outcomes in a democratic setting, but they may also, as noted in the last section of this paper, prove to be an important way in which the preferences of the people who are allegedly being served by the state can gradually enter more explicitly into the determination of state policies.

Decentralization is of course one of the major methods now being used around the world in part in order to achieve this objective (Burki and Perry 2000). This is not surprising since, as noted earlier, in many ways decentralizing decisions to local governments is, to the extent such decisions are locally-financed, in principle similar to decentralizing them to a user-charge financed public enterprise or a benefit-tax financed special agency such as a road fund. Problems similar to those arising with respect to user charges and benefit taxes may of course arise with local taxes. Apart from land taxes, for example, all other forms of local taxes are likely to give rise to some distortionary costs, although efforts can be made to reduce the magnitude of such costs by, for example, limiting the range of possible rate variation (Bird 2000). Similar arguments may be made with respect to many benefit taxes, even those with “market-correcting” features such as the gasoline tax. Hughes (1987) shows, for example, although gasoline taxes may often be progressive in developing countries, they may also give rise to efficiency losses. For example, while higher gasoline taxes may have a “corrective” effect by reducing the use of motor vehicles in congested

urban areas, a similar reduction in rural areas may be perverse.

### **Efficiency and Equity**

Finally, virtually all treatments of the MCF issue neglect distributional issues. Either they are conducted in single-consumer (or representative consumer) frameworks, where distribution is not an issue or, as do Ballard and Fullerton (1992), they explicitly assume that all taxpayers are both equal and treated equally. While the need to thus simplify reality is of course analytically understandable, this is not how the world works. The reality of the assumptions used to derive analytical conclusions must always be carefully considered—and, if necessary, the conclusions adjusted—before applying them to real world policy issues.

A quite different approach leading to a quite different conclusion, for example, has recently been put forth in an important paper by Kaplow (1996). Kaplow (1996) argues, in effect, that the best general way to treat the distortionary cost of taxation in evaluating public expenditures is to ignore it, that is, to treat the social marginal cost of public funds as equal to their nominal cost. In other words, the economic cost of raising an additional dollar of public revenue is, in his analysis, exactly equal to the dollar raised. The key to his argument is that he assumes that the distortionary cost of taxes is, for the most part, a reflection of the attempt to redistribute income through the tax system.<sup>15</sup> In this circumstance, as Kaplow (1996, p. 520) puts it:

Knowledge that the aggregate reform—the public good and the tax adjustment, taken together—causes distortion thus provides little guidance, because the existence of distortion is associated with greater redistribution. Whether the net effect is good or bad depends upon the extent of preexisting redistribution and the policymaker's judgment about the optimal extent of redistribution.

Although this argument was subsequently strongly criticized by Browning and Liu (1998) as unduly downplaying the distortionary cost of taxes, and is in any case clearly overstated—perhaps especially for developing countries—since

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<sup>15</sup> Other arguments to the effect that the MCF should incorporate some measure of the offsetting distributional gains may be found in, for example, Sandmo (1998) and Dalhby (1998).

many distortions cannot plausibly be associated with any distributive aim, it is, as Ng (2000) demonstrates, not only convincing but fully compatible with even such high measures of such costs found in Feldstein (1997) and others.

This apparently paradoxical result—that there can be a high marginal “excess burden” of taxation that need not, and should not, be taken into account in expenditure analysis—can be simply explained, although the extent to which the explanation seems appropriate depends very much upon the particular circumstances being analyzed. Essentially, what Kaplow (1996) suggests is that the best procedure as a rule is, contrary to the position recently taken by DSS (1997), and accepted by Harberger (1997), not to make any adjustment for the MCF. Instead, Kaplow (1996) assumes that the source of finance will be an income tax adjustment that will roughly offset the benefits from the public goods at each income level. When such “benefit taxation” is used, he argues, there is no need for adjusting for distortionary costs because there will, by definition, not be any distortion.

To this point, this is simply a variant of the more specific benefit tax argument noted earlier (and is of course subject to similar qualifications). Kaplow (1996) then goes on to argue, however, that what is required to achieve this result is not “pure” benefit taxation, adjusted to each individual’s preferences, but rather the much more feasible benefit taxation by income level. While there would still be some redistribution under such a system, it would be *within* income groups, depending upon individual preferences, and hence, he argues, unlikely to have significant distortionary effects on labor supply.<sup>16</sup> Kaplow (1996) further argues that since it seems reasonable to consider that the tax system in place in any country at any time reflects some relative stable distributional equilibrium, it is not unreasonable to assume that, on the whole, marginal changes in taxes are likely to be relatively distributionally neutral.

Of course, to the extent that non-benefit finance is employed, efficiency losses may arise. Even so, Kaplow (1996) argues, in many instances such costs will be offset by redistributive benefits. As he puts the point elsewhere: “...if

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<sup>16</sup> Ng (1984) makes a somewhat similar argument in a related context.

an identified method of finance involves greater distortion...this is precisely because that method of finance involves greater redistribution” (Kaplow 1998, p. 124). This argument, of course, is most applicable with respect to progressive income taxes. It hence seems less plausible in countries in which such taxes are unimportant. Nonetheless, Kaplow (1996) is surely right when he concludes that it is wrong to “...focus entirely upon the distortionary costs of the income tax, ignoring that the *raison d’être* of redistributive taxation is to redistribute income.”<sup>17</sup> Just as a feasible lump-sum tax with no distortionary cost such as a poll tax might be considered undesirable on distributional grounds, so an increase in a progressive income tax might be considered worthwhile even though it clearly increases distortion. Of course, this reasoning also suggests that if the source of finance both caused efficiency losses and impacted adversely on the poor, as would many excise taxes,<sup>18</sup> it would be doubly undesirable.

It is important to understand what is being argued here. The point is not that there are not often real and sometimes large efficiency costs connected with raising public funds. The mere fact that such costs arise, however, does not mean that the benefit-cost ratio for an acceptable project should be calculated using a “shadow price” of fiscal funds. As Kaplow (1996) demonstrates, if the finance comes from (good) “benefit” taxes then by definition the shadow and nominal prices are the same, and if it comes from non-benefit taxes it may still be considered worthwhile if the distributive effect of such taxes is considered desirable. On the other hand, as Ng (2000) correctly notes, Kaplow’s analysis does not deal with some of the distortionary costs mentioned earlier, such as the inducement to inefficient expenditure choices cited by Feldstein (1997) or the inducement to evasion and consequent need for enforcement costs cited by Usher (1991). Particularly in developing countries, the latter form of distortion seems likely to remain extremely important. Combined with the

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<sup>17</sup> Stiglitz (2000, p. 553) makes a comment in the same spirit: “The use of distortionary taxes is thus an inevitable consequence of our desire to redistribute income, in a world in which the government can observe the characteristics of individuals only imperfectly.”

<sup>18</sup> An example, a tax on kerosene, is analyzed in Hughes (1987).



much smaller likelihood that the tax systems in such countries can be considered to be very redistributive in either intent or outcome (Chu, Davoodi, and Gupta 2000), this consideration suggests that Kaplow's analysis should be viewed cautiously in this context.

Finally, an additional argument introduced by Ng (2000a) deserves brief mention. From the perspective of human happiness—a perspective which, however remote it may appear to the day-to-day work of most economists, underlies economic analysis—it has frequently been noted that relative incomes are often as (if not more) important than absolute incomes. Many expenditures affect relative incomes through, for example, the provision of such “positional goods” (Hirsch 1976) as education (public spending) and automobiles (private spending). Logically, the marginal benefit of expenditures should include such relative income effects, both negative and positive. As Galbraith (1958) noted long ago, the failure to do so on the whole tends to make private expenditure look relatively more beneficial than it really is in welfare terms and public expenditure correspondingly less attractive. While it seems unlikely to be practicable or desirable to attempt to take such relative income effects into account in project analysis, this consideration again casts doubt upon the soundness of applying any general MCF rule in such analysis.

### **The Wicksellian Connection**

A wide range of views on how to treat financing issues in the evaluation of public expenditures has been covered in this paper. Three questions have been considered. First, should “the shadow price of public finance” be explicitly taken into account in expenditure evaluation? Second, if so, how should this “shadow price” be estimated? And, third, regardless of the answer to the first question, how much attention needs to be paid to the institutional linkages between expenditures and revenues—what Breton (1996) has called “the Wicksellian connection” that lies at the heart of an efficient public sector.

The answers to the first and second questions, as have been discussed, are by no means simple and do not easily yield simple rules. For example, when the financing of a project can be firmly linked to a properly-designed “benefit” charge (a user charge, an earmarked benefit levy, or, in some instances, loan finance) or to some other form of “burdenless” fiscal change

(such as a land tax, a Pigouvian tax, or the reduction of a distorting tax “incentive”), the application of an MCF correction—a shadow price of fiscal resources—seems inappropriate. Even when the probable source of budgetary finance is a clearly distorting tax system, the precise level of the correction to be applied will be sensitive to both the nature of that system, the nature of the anticipated tax changes, and the nature of the expenditure being financed. And finally, to at least some extent, distortions associated with tax finance may reflect the distributional goals of society and hence, arguably, should not therefore be used to, in effect, unduly restrain the scope and level of public sector activity.

Despite all these considerations, however, DSS (1997) might well be right as a practical matter in suggesting that at least a minimal MCF correction may often be called for, unless there is some very good reason not to make such a correction. A useful analogy might be with “routine” or “habitual” decisions compared to “non-routine” or “unique” decisions. Most of us go through life using rules of thumb and conventional behaviors to cope with the routine, and as Simon (1959) has argued, it is generally efficient to do so, given the costs of obtaining and processing information. Since most expenditures are likely to be financed from general revenues, an MCF correction on the order of 20 percent or so is unlikely to do any harm and may provide a little counterbalance to the inevitable tendency of advocates to overstate the benefits of particular projects. When, on the other hand, the situation is clearly different—as, for example, when an expenditure is to be financed from a well-designed earmarked revenue source—we can and should behave differently.

More basically, however, perhaps the most important lesson emerging from this brief review of some of these complex issues relates to the third question raised in the first paragraph of this section. There, the answer seems clear: much more attention should be paid to linkages between expenditures and revenues than has been the rule to date in applied economic analysis of the public sector. Several such linkages have been noted in passing at various points in the course of the preceding discussion: (1) user charges or prices charged for public services, (2) earmarked benefit taxes, (3) local taxes financing local services, (4) income taxes financing general public goods, (5) loan finance for investment projects,

and (6) proper budgeting procedures (for example, with respect to capital budgets and earmarked funds). Rather than elaborating these points further here, I shall conclude with a few remarks about the general normative framework underlying this discussion and its implications for positive policy.

First, financing matters. It matters for two distinct reasons. The first is that how a project is assumed to be financed can and should affect the net present value of benefits to be expected from it, and hence whether it is worth doing or not. This is properly the principal concern of economic analysts, and, as the preceding discussion suggests, they often have a difficult task in determining how to “cost” different sources of financing—let alone whether and how to take account of such costs in carrying out quantitative analysis.

The second reason for being concerned about how public expenditures are financed, however, is more basic. It goes to the heart of the central problem of public economics: what should governments do? As DSS (1997) properly emphasize, determining what governments should do is inseparably entangled with the question of how whatever they do is to be financed. What they perhaps do not stress sufficiently, however, is that: (1) the proper treatment of efficiency costs is inextricably related to distributional concerns and (2) it is critical in determining what governments should do to ensure that the linkage between expenditure and revenue decisions is as clearly established in the budgetary and political process as possible. As Musgrave (2000, pp. 82-83) puts it: “Defining the optimal outcome was simple enough, but how to reach it was the critical matter. This linkage between normative and operational analysis goes to the heart of the Wicksellian model. It thereby differs from the Pigouvian approach to budgeting as equating known marginal benefits and costs (Pigou 1928, chap. VII) and Samuelson’s formulation whereby the optimal allocation of resources is decided by an omniscient referee (Samuelson 1954).”

The distributional aspect was discussed earlier in connection with the argument of Kaplow (1996) for not making an MCF correction on the grounds that such distortions are simply the cost paid for achieving the distributional goals of the polity. While I am skeptical of the relevance of this argument in the far from perfect democracies and the highly

distorted tax systems prevalent in many developing countries, some attention should nonetheless be paid to this line of thought. After all, viewed in historical perspective, what Kaplow (1996) is in effect arguing is simply that, as Wicksell (1896) argued exactly a century earlier, allocative decisions in the public sector will be made efficiently if they are financed efficiently – that is, by benefit taxes (or “Lindahl prices” as they are often called following Wicksell’s student, Lindahl 1919). Wicksell (1896) further noted, however, that this mode of financing would be normatively and politically acceptable only if society had already adjusted the distribution of income and wealth to accord with the politically-acceptable “just” distribution of income. As mentioned earlier, a very similar argument was made by Kaplow (1996) who asserts, not implausibly, that it seems reasonable to consider that any proposed new expenditure will be financed in an essentially distributionally-neutral fashion, in the sense that the pre-existing distributional compromise embodied in the public finance system will not be significantly disturbed.<sup>19</sup>

In many ways, the heart of the financing question is what can be done to make the Wicksellian connection operational. Taking into account the financing side of public expenditures is not something that can or should simply be factored into project evaluation by some (non-existent) omniscient observer who will, on the basis of his or her impartial weighing of the evidence, decide what is best for society—and especially not for someone else’s society! Rather, it is an essential component of the process by which good budgetary decisions—decisions that, as closely as practically feasible, should reflect people’s real preferences—can be obtained in any society. As noted earlier, much of the rationale for “good” decentralization—that is, decentralization that increases accountability along the lines sketched, for example, in Bird (1993, 2001)—lies precisely in such arguments. The same is true of all the other devices for linking more closely financing and expenditure decisions discussed above. The point is not,

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<sup>19</sup> In a similar fashion, Head and Bird (1983) refer to the “quasi-constitutional” nature of tax systems. More broadly, this argument may be related to Musgrave’s (1969a) long-standing position that it is essential for clarity of thought to separate the allocative and distributional dimensions of public sector decisions.

for example, that user charge financing or capital budgeting, is always preferable to general fund financing and budgeting. In many instances, indeed, such practices have arguably produced worse results than those that might have emerged with a soundly conceived and executed comprehensive budgetary system and a uniformly applied expenditure evaluation system along the lines sketched by, for example, DSS (1997). As with decentralization, however, the fact that something has often been done wrongly in no way detracts from the basic argument that it can be done rightly and that, when so done, it will produce outcomes more in accordance with society's wishes and resources.

To put this final point another way, DSS (1997) correctly stress the importance for good expenditure analysis of carefully specifying the "appropriate counterfactual" and note that this is by no means an easy task. In effect, what I am suggesting here is, first, that it is equally important, and difficult, to specify the "appropriate" public sector financing counterfactual, second, that in some (perhaps many) instances that counterfactual may suggest that it is not appropriate to automatically apply an MCF correction to budgetary flows, and third, and in many ways most importantly, that thinking through correctly the links between expenditures and revenues is critical not just for good project analysis but more fundamentally for good government.

The key to good results lies not in any particular budgetary or financing procedure but rather in implementing a public finance system that, to the extent possible, links specific expenditure and revenue decisions as transparently as possible. Perhaps somewhat curiously, then, consideration of whether or not a shadow price of public funds should be taken into account in evaluating proposals for additional expenditures leads me to conclude that (unless one is prepared to adopt the untenable role of the Samuelsonian "ethical observer") the ultimate deciders of what should be done should be those who are most directly affected, and that the best that can be done to ensure that the relevant decision-makers make the "right" decision is to ensure that they and all those affected are made as aware as possible of all the relevant consequences.

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# 5

## DRAFT GUIDELINES FOR PUBLIC DEBT MANAGEMENT

*IMF and World Bank Staff*

Source: Shah, Anwar, editor (2003), *Ensuring Accountability When There Is No Bottom Line*, Vol. 1 of *Handbook on Public Sector Performance Reviews*. Washington D.C.: The World Bank.

### Introduction

The International Monetary and Financial Committee (IMFC), formerly the Interim Committee, has called on the IMF and the World Bank to work together in cooperation with national debt management experts to develop a set of guidelines on public debt management to assist countries in their efforts to reduce financial vulnerability.<sup>1</sup> The IMFC's request was made as part of a search for broad principles that could help governments improve the quality of their policy frameworks for managing the effects of volatility in the international monetary and financial system. The Working Group on Capital Flows, one of the three working groups established by the Financial Stability Forum (FSF), highlighted the rationale for the development of the guidelines as part of efforts to strengthen risk management and governance in the public sector and thereby reduce external vulnerabilities.<sup>2</sup>

The need for the guidelines was reiterated in the FSF Working Group report and by the IMFC and the Development Committee on the occasion of the Spring 2000 meetings in Washington, D.C.<sup>3</sup>

In response to the Committee's request, the staffs of the Fund and of the World Bank have prepared a set of Draft

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<sup>1</sup> Communique of the Interim Committee of the Board of Governors of the International Monetary Fund dated September 26, 1999 (paragraph 19) and reiterated in the Communique of the International Monetary and Financial Committee of the Board of Governors of the International Monetary Fund dated April 16, 2000 (paragraph 18).

<sup>2</sup> Financial Stability Forum, SM/00/64, March 21, 2000, "Information Note on the Working Group Reports."

<sup>3</sup> See the final report of the FSF Working Group on Capital Flows, approved by the FSF in the Singapore Meeting, on March 25-26, 2000, and the Communique of the Joint Ministerial Committee of the Board and the Fund on the Transfer of Real Resources to Developing Countries, on April 17, 2000.

Guidelines for discussion at Executive Board Seminars in the Fund and the Bank. The Draft Guidelines are derived from the work completed or under way by Bank and Fund staffs on debt management practices and market development, as well as external vulnerabilities.<sup>4</sup> They also benefit from initial comments received from a group of debt management experts. This paper represents a first step towards the development of guidelines on public debt management. An outreach and consultation process with the finance ministry, central bank, and debt management officials responsible for public debt management from a large number of countries, will be held before year-end 2000 following the Board seminar. A final set of guidelines will be prepared for discussion by the Fund and Bank Boards in early 2001.

### **Purpose of the Guidelines**

The Draft Guidelines are designed to assist policymakers in considering reforms to strengthen the quality of their public debt management and reduce their country's vulnerability to international financial shocks. Vulnerability is often greater for smaller and emerging market countries because their economies may be less diversified, have a smaller base of domestic financial savings and less developed financial systems, and be more susceptible to financial contagion through the relative magnitudes of capital flows. Irrespective of whether financial shocks originate within the domestic banking sector or from global financial contagion, prudent government debt management policies, along with sound macroeconomic policies, are essential for containing the human and output costs associated with such shocks.

The Draft Guidelines cover both domestic and external public debt and encompass a broad range of financial claims on the government. They seek to identify areas in which there

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<sup>4</sup> In particular, this paper draws upon three papers: World Bank (forthcoming), "Sound Practice in Sovereign Debt Management;" World Bank in cooperation with the International Monetary Fund (forthcoming), "Developing Domestic Debt Markets—A Practitioner's Manual;" and International Monetary Fund, 2000. "Debt- and Reserve-Related Indicators of External Vulnerability" (SM/00/65). The paper also draws upon the *Code of Good Practices on Fiscal Transparency: Declaration of Principles* and the *Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles*.

is broad agreement on what generally constitutes sound practices in public debt management. The Draft Guidelines endeavor to focus on principles applicable to a broad range of countries at different stages of development and with various institutional structures of national debt management. They should not be viewed as a set of binding practices or a rigid prescription, nor suggest that a unique set of sound practices exists, which would apply to all countries in all situations. Building capacity in sovereign debt management can take several years and country situations and needs vary widely. These guidelines are mainly intended to assist policymakers by disseminating sound practices adopted by member countries in debt management strategy and operations for which there is a record of experience.

Each country's capacity building needs in sovereign debt management will be shaped by the capital market constraints it faces, its exchange rate regime, the quality of its macroeconomic and regulatory policies, the institutional capacity to design and implement reforms, the country's credit standing, and its objectives for public debt management. Nevertheless, the guidelines raise public policy issues that are relevant for all countries. Every government faces policy choices concerning debt management objectives, its preferred risk tolerance, which part of the government balance sheet the government debt managers should be responsible for, how to manage contingent liabilities, and how to establish sound governance for public debt management. On many of these issues, there is increasing convergence on what are considered prudent sovereign debt management practices that can also reduce vulnerability to contagion and financial shocks. These include: recognition of the benefits of clear objectives for debt management, weighing risks against cost considerations, the separation and coordination of debt and monetary management, a limit on debt expansion, the need to carefully manage refinancing risk and the interest costs of debt burdens, and the necessity of developing a sound institutional structure, including clear delegation of responsibilities and associated accountabilities among government agencies involved in debt management.

Debt management needs to be linked to a clear macroeconomic framework, under which governments seek to

ensure that the level and rate of growth in public debt are sustainable. In addition, the recent turbulence in several emerging market economies has re-emphasized certain aspects of debt management—or example, the risks involved with over reliance on short-term or floating-rate debt and debt denominated in or indexed to foreign currencies.

### **What is Public Debt Management and Why is it Important?**

Sovereign debt management is the process of establishing a strategy for managing the government's debt in order to raise the required amount of funding, achieve its risk and cost objectives, and to meet any other sovereign debt management goals the government may have set, such as developing and maintaining an efficient market for government securities.

In a broader macroeconomic context for public policy, governments should seek to ensure that both the level and rate of growth in the public debt is fundamentally sustainable, and can be serviced under a wider range of circumstances while meeting cost or risk objectives. Sovereign debt managers share fiscal policy advisors' concerns that public sector indebtedness remains on a sustainable path and that a credible strategy is in place to reduce excessive levels of debt. Debt managers should ensure that the fiscal authorities are aware of the impact of government financing requirements and debt levels on borrowing costs.<sup>5</sup>

Examples of indicators that address the issue of debt sustainability include the public sector debt service ratio, and ratios of public debt to GDP (e.g., Maastricht's 60 percent target for EMU entry) and to tax revenue.

Poorly structured debt in terms of maturity, currency, and interest rate composition has been a factor in inducing or propagating economic crises in many countries throughout history. For example, crises have often arisen because of an excessive focus by governments on possible cost savings associated with large volumes of short-term debt, which has left government budgets seriously exposed to changing

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<sup>5</sup> Excessive levels of debt that result in higher interest rates can have adverse effects on real output. See for example: A. Alesina, M. de Broeck, A. Prati, and G. Tabellini. "Default Risk on Government Debt in OECD Countries." *Economic Policy: A European Forum* (October 1992), pp. 428-463.

financial market conditions, including changes in the country's creditworthiness, when this debt has to be rolled over. Depending on the nature of the exchange rate regime, excessive reliance on foreign currency debt can lead to exchange rate and/or monetary pressures if foreign investors become reluctant to refinance the government's foreign-currency debt. By reducing the risk that the government's own portfolio management will become a source of instability for the private sector, prudent debt management can make countries less susceptible to contagion and financial risk.

A government's debt portfolio is often the largest financial portfolio in the country. It often contains complex and risky financial structures, and can generate substantial risk to the government's balance sheet and to the country's financial stability. As noted by the Financial Stability Forum's Working Group on Capital Flows, "recent experience has highlighted the need for governments to limit the build-up of liquidity exposures and other risks that make their economies especially vulnerable to external shocks."<sup>6</sup> Therefore, sound risk management by the public sector is also essential for risk management by other sectors of the economy "because individual entities within the private sector typically are faced with enormous problems when inadequate sovereign risk management generates vulnerability to a liquidity crisis." Sound debt structures help governments reduce their exposure to interest rate, currency and other risks, for example, by establishing, where feasible, benchmarks relating to the desired currency composition, duration, and maturity structure of the debt to guide the future composition of the portfolio, and by spreading borrowing decisions throughout the year.

Recent debt market crises have highlighted the importance of sound debt management practices and the need for an efficient and sound capital market. Although government debt management policies may not have been the sole or even the main cause of these crises, the maturity structure, and interest rate and currency composition of the government's debt portfolio, together with obligations in respect of contingent liabilities have often contributed to the severity of

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<sup>6</sup> Financial Stability Forum, SM/00/64, March 21, 2000, "Information Note on the Working Group Reports."



the crisis. Sometimes these risks can be readily addressed by relatively straightforward measures, such as by lengthening the maturities of borrowings and paying the associated higher debt servicing costs (assuming an upward sloping yield curve), by adjusting the amount, maturity, and composition of foreign exchange reserves, and by reviewing criteria and governance arrangements in respect of contingent liabilities.

Risky debt structures are often the consequence of inappropriate economic policies—fiscal, monetary and exchange rate—but the feedback effects undoubtedly go in both directions. However, there are limits to what sound debt management policies can deliver. Sound debt management policies are no panacea or substitute for sound fiscal and monetary management. If macroeconomic policy settings are poor, sound sovereign debt management may not by itself prevent any crisis. Sound debt management policies reduce susceptibility to contagion and financial risk by playing a catalytic role for broader financial market development and financial deepening. Recent experience supports the argument, for example, that domestic debt markets can substitute for bank financing (and vice versa) when this source dries up, helping economies to weather financial shocks.<sup>7</sup>

More efficient debt markets in turn can strengthen the transmission and implementation of monetary policy, including the achievement of monetary targets or inflation objectives, and enable the use of market-based monetary instruments. Well-functioning domestic debt markets reduce or eliminate the need for direct and potentially damaging monetary financing of the deficit. Last, but not least, sound debt management policies should lower borrowing costs in the long term and therefore reduce the budgetary impact of deficit financing, and contribute to debt sustainability.

Chapter II summarizes the Draft Debt Management Guidelines, which are discussed more fully in chapter III.

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<sup>7</sup> See, for example, Remarks by Chairman Alan Greenspan before the World Bank Group and the International Monetary Fund, Program of Seminars. Washington, D.C., September 27, 1999.

## **Summary of the Draft Debt Management Guidelines**

### **Debt Management Objectives and Coordination**

#### ***Objectives***

The main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk.

#### ***Scope***

Debt management should encompass the main financial obligations over which the central government exercises control.

#### ***Coordination with Monetary and Fiscal Policies***

Debt managers, fiscal policy advisors, and central bankers should share an understanding of the objectives of debt management, fiscal, and monetary policies given the interdependencies between their different policy instruments. Debt managers should convey to fiscal authorities their views on the costs and risks associated with government financing requirements and debt levels.

Where the level of financial development allows, there should be a separation of debt management and monetary policy objectives and accountabilities.

Debt management, fiscal, and monetary authorities should share information on the government's current and future liquidity needs.

### **Transparency and Accountability**

#### ***Clarity of Roles, Responsibilities and Objectives of Financial Agencies Responsible for Debt Management***

The allocation of responsibilities among the ministry of finance, the central bank, or a separate debt management agency, for debt management policy advice, and for undertaking primary debt issues, secondary market arrangements, depository facilities, and clearing and

settlement arrangements for trade in government securities, should be publicly disclosed.

The objectives for debt management should be clearly defined and publicly disclosed, and the measures of cost and risk that are adopted should be explained.

***Open Process for Formulating and Reporting of Debt Management Policies***

Materially important aspects of debt management operations should be publicly disclosed.

***Public Availability of Information on Debt Management Policies***

The public should be provided with information on the past, current, and projected fiscal activity and consolidated financial position of the government.

The government should regularly publish information on the stock and composition of its debt and financial assets, including their currency, maturity, and interest rate structure.

***Accountability and Assurances of Integrity by Agencies Responsible for Debt Management***

The accountability framework for debt management should be publicly disclosed and supported by reporting of the results achieved. Debt management activities should be audited annually by external auditors.

***Institutional Framework***

***Governance***

The legal framework should clarify the authority to borrow and to issue new debt, invest, and undertake transactions on the government's behalf.

The organizational framework for debt management should be well specified, and ensure that mandates and roles are well articulated.

***Management of Internal Operations***

Risks that the government suffers losses as a result of inadequate operational controls should be managed by having well-articulated sets of responsibilities for staff, and clear monitoring and control policies and reporting arrangements.

Staff involved in debt management should be subject to a code-of-conduct and conflict-of-interest guidelines regarding the management of their personal financial affairs.

Sound business recovery procedures should be in place to mitigate the risk that debt management activities might be severely disrupted by natural disasters, social unrest, or acts of terrorism.

### **Debt Management Strategy**

The risks inherent in the structure of the government's debt should be carefully monitored and evaluated. These risks should be mitigated to the extent feasible by modifying the debt structure, taking into account the cost of doing so.

In order to help guide borrowing decisions and reduce the government's risk, debt managers should consider the financial and other risk characteristics of the government's cash flows.

Debt managers should take into account the risks associated with foreign-currency and short-term debt.

There should be cost-effective cash management policies in place to enable the authorities to meet with a high degree of certainty their financial obligations as they fall due.

### **Risk Management Framework**

A framework should be developed to enable debt managers to identify and manage the trade-offs between expected cost and risk in the government debt portfolio.

To assess risk, debt managers should regularly conduct stress tests of the debt portfolio on the basis of the economic and financial shocks to which the government—and the country more generally—are potentially exposed.

### **Scope for Active Management**

Debt managers who seek to actively manage the debt portfolio to profit from expectations of movements in interest rates and exchange rates, which differ from those implicit in current market prices, should be aware of the risks involved and accountable for their actions.

### ***Contingent Liabilities***

Debt managers should consider the impact that contingent liabilities have on the government's financial position, including its overall liquidity, when making borrowing decisions.

### **Development and Maintenance of an Efficient Market for Government Securities**

In order to minimize cost and risk over the medium to long run, debt managers should ensure that their policies and operations are consistent with the development of an efficient government securities market.

### ***Portfolio Diversification and Instruments***

The government should strive to achieve a broad investor base for its domestic and foreign obligations, with due regard to cost and risk, and should treat investors equitably.

### ***Primary Market***

Debt management operations in the primary market should be transparent and predictable.

To the extent possible, debt issuance should use market-based mechanisms, including competitive auctions and syndications.

### ***Secondary Market***

Governments and central banks should promote well-functioning secondary markets under a wide range of market conditions.

The systems used to settle and clear financial market transactions involving government securities should reflect sound practices.

## **Discussion of the Draft Debt Management Guidelines**

### **Debt Management Objectives and Coordination**

#### **Objectives**

The main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run consistent with a prudent degree of risk. Prudent risk management to avoid dangerous debt structures and strategies (including monetary financing of the government's debt) is crucial, given the severe macroeconomic consequences of sovereign debt default, and the magnitude of the output losses and costs that accompany it. These costs may include business and banking insolvencies as well as the long-term credibility and capability of the government to mobilize domestic and foreign savings. Box 1 provides a list of risks encountered in sovereign debt management.

Governments should try to minimize expected debt servicing costs and the cost of holding liquid assets, subject to an acceptable level of risk, over a medium- to long-term horizon.<sup>8</sup> Minimizing cost, irrespective of risk, should not be an objective. Transactions that appear to lower debt servicing costs often embody significant risks for the government and can limit its capacity to repay lenders. Developed countries, which typically have deep and liquid markets for their government's securities, often focus primarily on market risk, and, together with stress tests, may use sophisticated portfolio models for measuring this risk. By contrast, emerging market countries, which have only limited (if any) access to foreign capital markets and which also have relatively undeveloped domestic debt markets, should give higher priority to rollover risk. Where appropriate, debt management policies to promote

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<sup>8</sup> In addition to their concerns as to the real costs of financial crises, governments' desire to avoid excessively risky debt structures reflects their concern over the possible effects of losses on their fiscal position and access to capital, and the fact that losses could ultimately lead to higher tax burdens and political risks.

**Box 1: Risks Encountered in Sovereign Debt Management**

<b>Risk</b>	<b>Description</b>
Market Risk	Risks associated with changes in market prices, such as interest rates, exchange rates, commodity prices, etc. For both domestic and foreign currency debt, changes in interest rates affect debt servicing costs on new issues when fixed-rate debt is refinanced, and on floating-rate debt at the rate reset dates. Hence, short-duration debt (short-term or floating-rate) is usually considered to be more risky than long-term, fixed rate debt. (Excessive concentration in very long-term, fixed rate debt also can be risky as future financing requirements are uncertain.) Debt denominated in or indexed to foreign currencies also adds volatility to debt servicing costs as measured in domestic currency owing to exchange rate movements. Bonds with embedded put options can exacerbate market risks.
Rollover Risk	The risk that debt will have to be rolled over at an unusually high cost or, in extreme cases, cannot be rolled over at all. To the extent that rollover risk is limited to the risk that debt might have to be rolled over at higher interest rates, including changes in credit spreads, it may be considered a type of market risk. However, because the inability to roll over debt and/or exceptionally large increases in government funding costs can lead to, or exacerbate, a debt crisis and thereby cause real economic losses, in addition to the purely financial effects of higher interest rates, it is often treated separately. Managing this risk is particularly important for emerging market countries.
Liquidity Risk	There are two types of liquidity risk. One refers to the cost or penalty investors face in trying to exit a position when the number of transactors has markedly decreased or because of the lack of depth of a particular market. This risk is particularly relevant in cases where debt management includes the management of liquid assets or the use of derivatives contracts. The other form of liquidity risk, for a borrower, refers to a situation where the volume of liquid assets can diminish quickly in the face of unanticipated cash flow obligations and/or a possible difficulty in raising cash through borrowing in a short period of time.
Credit Risk	The risk of non-performance by borrowers on loans or other financial assets or by a counterparty on financial contracts. This risk is particularly relevant in cases where debt management includes the management of liquid assets. It may also be relevant in the acceptance of bids in auctions of securities issued by the government as well as in relation to contingent liabilities, and in derivative contracts entered into by the debt manager.
Settlement Risk	Refers to the potential loss that the government could suffer as a result of failure to settle, for whatever reason other than default, by the counterparty.
Operational Risk	This includes a range of different types of risks, including transaction errors in the various stages of executing and recording transactions; inadequacies or failures in internal controls, or in systems and services; reputation risk; legal risk; security breaches; or natural disasters that affect business activity.

the development of the domestic debt market should also be included as a prominent government objective. This objective is particularly relevant for countries where market constraints are such that short-term debt, floating-rate debt, and foreign currency debt may, in the short-run at least, be the only viable alternatives to monetary financing.

**Scope**

Debt management should encompass the main financial obligations over which the central government exercises control. In a number of countries, the definition of the “central government” and the scope of debt management operations have broadened in recent years. Nevertheless, the public sector debt, which is included or excluded from the central government’s mandate over debt management, will vary from country to country, depending on the nature of the political and institutional frameworks.<sup>9</sup>

Domestic and foreign currency borrowings are now typically coordinated. Moreover, debt management often encompasses the oversight of liquid financial assets and potential exposures due to off-balance sheet claims on the central government, including contingent liabilities such as state guarantees. In establishing and implementing a strategy for managing the central government’s debt in order to achieve its cost and risk objectives and any other sovereign debt management goals, the central government should, whenever possible, monitor and review the potential exposures that may arise from guaranteeing the debts of sub-central governments and state-owned enterprises, and be aware of the overall financial position of private-sector borrowers.

And, the borrowing calendars of the central and sub-central government borrowers may need to be coordinated to ensure that auctions of new issues are appropriately spaced.

**Coordination with Monetary and Fiscal Policies**

Debt managers fiscal policy advisors, and central bankers should share an understanding of the objectives of debt management, fiscal, and monetary policies given the interdependencies between their different policy instruments.

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<sup>9</sup> These guidelines may also offer useful insights for other levels of government with debt management responsibilities.



Debt managers should convey to fiscal authorities their views on the costs and risks associated with government financing requirements and debt levels. Policymakers should understand the ways in which the different policy instruments operate, their potential to reinforce one another, and how policy tensions can arise.<sup>10</sup> Increasing the duration of debt and the share of fixed rate and domestic currency debt may be expensive in the short run, but they reduce rollover risk, and could be important steps in developing a domestic capital market. In many cases, they can also be viewed as down payments to enhance the credibility of monetary policy if supported by sound fiscal policies, thereby reducing the long-term cost of issuing the debt.<sup>11</sup> For some countries, issuing long-term, fixed-rate debt is not feasible, in these circumstances other debt structures, including inflation-indexed and exchange rate linked bonds, may be the only viable alternative. In some cases, conflicts between debt management and monetary policies can arise owing to the different purposes—debt management focuses on the cost/risk trade-off, while monetary policy is normally directed towards achieving price stability. Different views on the appropriate level of domestic interest rates or monetary conditions more generally, or how much foreign currency debt, if any, the government should have, may naturally arise from these differences. For this reason, it is important that coordination take place in the context of a clear macroeconomic framework.

Where the level of financial development allows, there should be a separation of debt management and monetary policy objectives and accountabilities. Clarity in the roles and objectives for debt management and monetary policy minimizes potential conflicts. In countries with well-developed financial markets, borrowing programs are based on the economic and fiscal projections contained in the government budget, and monetary policy is carried out independently from debt management. This helps ensure that debt management

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<sup>10</sup> For further information on coordination issues, see V. Sundararajan, Peter Dattels, and Hans J. Blomestein. 1997. (eds.). *Coordinating Public Debt and Monetary Management*. Washington, D.C.: IMF.

<sup>11</sup> However, it is possible that in some cases the costs of longer maturities and domestic debt instruments could be high enough that the fiscal position appears unsustainable and loses credibility. In such cases, fiscal reform may be a prerequisite.

decisions are not perceived to be influenced by inside information on interest rate decisions, and avoids perceptions of conflicts of interest in market operations. A goal of cost minimization over time for the government's debt, subject to a prudent level of risk, should not be viewed as a mandate to reduce interest rates, or to influence domestic monetary conditions. Neither should the cost/risk minimization objective be seen as a justification for the extension of low-cost central bank credit to the government, nor should monetary policy decisions be driven by debt management considerations.

Debt management fiscal and monetary authorities should share information on the government's current and future liquidity needs. Since monetary operations are often conducted using government debt instruments and markets, the choice of monetary instruments and operating procedures can have an impact on the functioning of government debt markets, and potentially on the financial condition of dealers in these markets. By the same token, the efficient conduct of monetary policy requires a solid understanding of the government's short- and longer-term financial flows. As a result, debt management and fiscal and monetary officials often meet to discuss a wide range of policy issues. At the operational level, debt management, fiscal, and monetary authorities generally share information on the government's current and future liquidity needs. They often coordinate their market operations so as to ensure that they are not both operating in the same market segment at the same time. Nevertheless, achieving the appropriate degree of separation between debt management and monetary policy might be more difficult in countries with less-developed financial markets, since debt management operations may have correspondingly larger effects on the level of interest rates and the functioning of the local capital market. Consideration needs to be given on the sequencing of reforms to achieve this separation.

### **Transparency and Accountability**<sup>12</sup>

As outlined in the *Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles* (MFP Transparency Code), the case for transparency in debt management operations is based on two main premises: first, their effectiveness can be strengthened if the goals and instruments of policy are known to the public (financial markets) and if the authorities can make a credible commitment to meeting them; second, transparency can enhance good governance through greater accountability of central banks, finance ministries, and other public institutions involved in debt management. Transparency and simplicity in debt management operations and in the design of debt instruments can help issuers reduce transaction costs and meet their portfolio objectives. They may also encourage greater investor participation, and over time help governments lower their debt servicing costs.

### **Clarity of Roles, Responsibilities and Objectives of Financial Agencies Responsible for Debt Management**

The allocation of responsibilities among the ministry of finance the central bank or a separate debt management agency, for debt management policy advice and for undertaking primary debt issues secondary market arrangements, depository facilities, and clearing and settlement arrangements for trade in government securities, should be publicly disclosed.<sup>13</sup> Conflicts can, and sometimes do arise, between monetary and debt management authorities as a result of differences in their objectives. For example, some central banks may prefer that the government issue inflation-indexed debt to bolster the credibility of monetary policy, while debt managers may believe that the market for such debt has not been fully developed. Conflicts can also arise between debt managers and fiscal authorities, for example, on the cash

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<sup>12</sup> This section draws on the aspects of the Code of Good Practices on Fiscal Transparency-Declaration of Principles (henceforth FT Code), and the Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles that pertain to debt management operations. Subsections in this chapter follow the section headings of the MFP Transparency Code.

<sup>13</sup> See MFP Transparency Code 1.2, 1.3, and 5.2.

flows inherent in a given debt structure (e.g., issuing zero-coupon debt to transfer the debt burden to future generations). Transparency in the mandates and clear rules and procedures in the operations of the central bank and ministry of finance can help resolve these conflicts, strengthen governance, and facilitate policy consistency.

The objectives for debt management should be clearly defined and publicly disclosed and the measures of cost and risk that are adopted should be explained.<sup>14</sup> Some sovereign debt managers also publicly disclose their benchmarks for cost and risk, although this practice is not universal. Experience suggests that such disclosure enhances the credibility of the debt management program and helps achieve debt management goals. Complementary objectives, such as domestic financial market development, should also be publicly disclosed. Their relationship with the primary objective should be clearly defined.

Clear debt management objectives are essential in order to reduce uncertainty as to the government's willingness to trade off cost and risk. Unclear objectives often lead to poor decisions on how to manage the existing debt and what types of debt to issue, particularly during times of market instability, resulting in a potentially risky and expensive debt portfolio for the government and adding to its vulnerability to a crisis. Lack of clarity with respect to objectives also creates uncertainty within the financial community. This can increase government debt servicing costs because investors incur costs in attempting to monitor and interpret the government's objectives and policy framework, and may require higher risk premia because of this uncertainty.

### ***Open Process for Formulating and Reporting of Debt Management Policies***

Materially important aspects of debt management operations should be publicly disclosed. The *Code of Good Practices on Fiscal Transparency—Declaration of Principles* highlights the importance and need for a clear legal and administrative framework for debt management, including mechanisms for the coordination and management of budgetary and extra budgetary activities.

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<sup>14</sup> See MFP Transparency Code 1.3 and 5.1.

Regulations and procedures for the primary distribution of government securities, including the auction format and rules for participation, bidding, and allocation should be clear to all participants. Rules covering the licensing of primary dealers (if engaged) and other officially designated intermediaries in government securities, including the criteria for their choice and their rights and obligations should also be publicly disclosed.<sup>15</sup> Regulations and procedures covering secondary market operations in government securities should be publicly disclosed, including central bank intervention as agent for the government's debt management operations.<sup>16</sup>

***Public Availability of Information on Debt Management Policies***

The public should be provided with information on the past, current and projected fiscal activity and consolidated financial position of the government. Disclosure of information on the flow and stock of government debt (if possible on a cash and accrual basis) is important.<sup>17</sup> Liberalized capital markets react swiftly to new information and developments, and in the most efficient of these markets, participants react to information whether published or not. Market participants will attempt to infer information that is not disclosed, and there is probably no long-term advantage to the issuer from withholding materially important information on, for example, the estimated size and timing of new debt issuance. Most debt managers therefore regularly publish projected domestic borrowing programs. Some adhere to set patterns of new issuance, while retaining flexibility to fix the amounts and maturities of instruments that will be auctioned until one or two weeks prior to the auction.

The government should regularly publish information on the stock and composition of its debt and financial assets, including their currency maturity, and interest rate structure.<sup>18</sup>The financial position of the public sector should be regularly

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<sup>15</sup> See MFP Transparency Code 6.1.3.

<sup>16</sup> See MFP Transparency Code 1.3.

<sup>17</sup> See FT Code Section II and MFP Code Section VII.

<sup>18</sup> See FT Code 2.2.

disclosed.<sup>19</sup> Where contingent liabilities exist (for example, through explicit deposit insurance schemes sponsored by the government), information on their cost and risk aspects should be disclosed whenever possible in the public accounts.<sup>20</sup> It is also important that the tax treatment of public securities be clearly disclosed when they are first issued. The objectives and fiscal costs of tax preferences, if any, for government securities should also be disclosed.

Transparency and sound policies can be seen as complements. The *Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles* recognizes, however, that there may exist circumstances under which it may be appropriate to limit the extent of such transparency.<sup>21</sup> For example, a government may not wish to publicize its pricing strategy prior to debt repurchase operations in order to avoid having prices move against it. However, in general, such limitations would be expected to apply on relatively few occasions with respect to debt management operations.

***Accountability and Assurances of Integrity by Agencies Responsible for Debt Management***

*The accountability framework for debt management should be publicly disclosed and supported by reporting of the results achieved<sup>22</sup>. Debt management activities should be audited annually by external auditors.* Audits of government financial statements should be conducted regularly and publicly disclosed on a preannounced schedule, including information on the operating expenses and revenues.<sup>23</sup> A national audit body, like the agency responsible for auditing government operations, should provide timely reports on the financial

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<sup>19</sup> The Inter-Agency Task Force on Finance Statistics (TFFS) is developing a framework for the presentation of external debt statistics. See *External Debt Statistics: Guide for Compilers and Users* (TFFS, Draft March 2000).

<sup>20</sup> The disclosure of contingent liabilities is discussed further in Section 5.2.

<sup>21</sup> See MFP Transparency Code Introduction

<sup>22</sup> See MFP Transparency Code 1.2, 1.3, Sections IV and VIII.

<sup>23</sup> The audit process may differ depending on the institutional structure of debt management operations.

integrity of the central government accounts. In addition, there should be regular audits of debt managers' performance, and of systems and control procedures.

## **Institutional Framework**

### **Governance**

The legal framework should clarify the authority to borrow and to issue new debt invest, and undertake transactions on the government's behalf. The authority to borrow should be clearly defined in legislation.<sup>24</sup> Sound governance practices are an important component of sovereign debt management, given the size of government debt portfolios.

The soundness and credibility of the financial system can be supported by assurances that the government debt portfolio is being managed prudently and efficiently. Moreover, counterparties need assurances that the sovereign debt managers have the legal authority to represent the government, and that the government stands behind any transactions its sovereign debt managers enter into. An important feature of the legal framework is the authority to issue new debt, which is normally stipulated in the form of either borrowing authority legislation with a preset limit or a debt ceiling.

The organizational framework for debt management should be well specified and ensure that mandates and roles are well articulated.<sup>25</sup> Legal arrangements should be supported by delegation of appropriate authority to debt managers. Experience suggests that there is a range of institutional alternatives for locating the sovereign debt management functions across one or more agencies, including in one or more of the following: the ministry of finance, central bank, autonomous debt management agency, and central depository.<sup>26</sup> Regardless of which approach is chosen, the key requirement is to ensure that the organizational framework

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<sup>24</sup> See also FT Code 1.2.

<sup>25</sup> See also Section 2.1 of the Guidelines and MFP Transparency Code 5.2.

<sup>26</sup> A few countries have privatized elements of debt management within clearly defined limits including, for example, some back-office functions and the management of the foreign currency debt stock.

surrounding debt management is clearly specified, there is coordination and sharing of information, and that the mandates of the respective players are clear.<sup>27</sup>

Many debt managers file an annual debt management report, which reviews the previous year's activities, and provides a broad overview of borrowing plans for the current year based on the annual budget projections. These reports increase the accountability of the government debt managers. They also assist financial markets by disclosing the criteria used to guide the debt program, the assumptions and tradeoffs underlying the setting of these criteria, and the managers' performance in meeting them.

### **Management of Internal Operations**

Risks that the government suffers losses as a result of inadequate operational controls should be managed by having well-articulated sets of responsibilities for staff, and clear monitoring and control policies and reporting arrangements.

Operational risk, due to inadequate controls and policy breaches, can entail large losses to the government and tarnish the reputation of debt managers. Sound risk monitoring and control practices are essential to reduce operational risk. Key elements include establishing a capacity for risk analysis and monitoring and reporting on all aspects of operational risk. These measures typically include establishing a capacity among the debt managers to undertake risk analysis and monitor and report on portfolio-related risks, in addition to setting up separate reporting lines for risk management and performance reporting, as distinct from reporting on market transactions and settlement issues.

Operational responsibility for debt management is generally separated into front and back offices with distinct functions and accountabilities, and separate reporting lines. The front office is typically responsible for executing transactions in financial markets, including the management of auctions and other forms of borrowing, and all other funding operations. It is important to ensure that the individual executing a market transaction and the one responsible for entering the

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<sup>27</sup> If the central bank is charged with the primary responsibility for debt management, the clarity of, and separation between, debt management and monetary policy objectives especially needs to be maintained.



transaction into the accounting system are different people. The back office handles the settlement of transactions and the maintenance of the financial records. In a number of cases, a separate middle or risk management office has also been established to assess the performance against strategic benchmarks. This separation helps to promote the independence of those setting and monitoring the risk management framework and assessing performance from those responsible for executing market transactions. Where debt management services are provided by the central bank (e.g., registry and auction services) on behalf of the government's debt managers, the responsibilities and accountabilities of each party can be formalized through an agency agreement between the central bank and the government debt managers.

Regardless of the institutional structure, the ability to attract and retain skilled debt management staff is crucial to mitigate operational risk. This can be a major challenge for many countries, especially where there is a high demand for such staff in the private sector. Debt management activities should be supported by an accurate and comprehensive management information system, although the costs and complexities of the system should be appropriate to the organization's needs. The management information system should capture all relevant cash flows, and should be fully integrated into the government's accounting system. While such systems are essential for debt management and risk analysis, their introduction often poses major challenges for debt managers in terms of expense and management time.

Staff involved in debt management should be subject to a code-of-conduct and conflict-of-interest guideline regarding the management of their personal financial affairs. This will help to allay concerns that staffs' personal financial interests may undermine sound debt management practices.

Sound business recovery procedures should be in place to mitigate the risk that debt management activities might be severely disrupted by natural disasters, social unrest, or acts of terrorism. Given that government debt issuance is increasingly based on efficient and secure electronic book-entry systems, comprehensive business recovery procedures, including backup systems and controls are essential to ensure the continuing operation of the government's debt management,

maintain the integrity of the ownership records, and to provide full confidence to debt holders on the safety of their investments.

### Debt Management Strategy

The risks inherent in the government's debt structure should be carefully monitored and evaluated. These risks should be mitigated to the extent feasible by modifying the debt structure, taking into account the cost of doing so. Box 2 summarizes some of the pitfalls encountered in sovereign debt management. A range of policies and instruments can be engaged to help manage these risks.

#### Box 2: Some Pitfalls in Debt Management

1) *Increasing the vulnerability of the government's financial position by increasing risk, even though it may lead to lower costs and a lower deficit in the short run.* Debt managers should avoid exposing their portfolios to risks of large or catastrophic losses, even with low probabilities, in an effort to capture marginal cost savings that would appear to be relatively "risk-free."

- Maturity structure. A government faces an intertemporal tradeoff between short-term and long-term costs that should be managed prudently. For example, excessive reliance on short-term or floating-rate paper to take advantage of lower short-term interest rates may leave a government vulnerable to volatile and possibly increasing debt service costs if interest rates increase, and the risk of default in the event that a government cannot roll over its debts at any cost.
- Excessive unhedged foreign exchange exposures. This can take many forms, but the predominant is: directly issuing foreign currency denominated debt and foreign exchange indexed debt. This practice may leave governments vulnerable to volatile and possibly increasing debt service costs if their exchange rates depreciate, and the risk of default if they cannot roll over their debts.
- Bonds with embedded put options. If poorly managed, these increase uncertainty to the issuer, effectively shortening the portfolio duration, and creating greater exposure to market/rollover risk.

2) *Debt management practices that distort private vs. government decisions, as well as understate the true interest cost.*

- Bonds collateralized by shares of state-owned enterprises (SOE) or other assets. In addition to understating the underlying interest cost, they may distort decisions regarding asset management.
- Bonds collateralized by specific sources of future tax revenue. If a future stream of revenue is committed for specific debt payments, a government may be less willing to undertake changes, which affect this revenue, even if the changes would improve the tax system.
- Tax-exempt or reduced tax debt. This practice is used to encourage the placement of government bonds. The impact on the deficit is ambiguous, since it will depend upon the taxation of competing assets and whether the after-tax rate of return on taxable and tax-exempt government paper are equalized.

**Box 2: Some Pitfalls in Debt Management (cont'd.)**

- 3) *Misreporting of contingent or guaranteed debt liabilities.* This may understate the actual level of the government's liabilities.
  - Inadequate coordination or procedures with regard to borrowings by lower levels of government, which may be guaranteed by the central government, or by state-owned enterprises.
  - Repeated debt forgiveness for lower levels of government or for state-owned enterprises.
  - Guaranteeing loans, which have a high probability of being called (without appropriate budgetary provisions).
- 4) *Use of non-market financing channels.* In some cases the practice can be unambiguously distortionary.
  - Special arrangements with the central bank for concessional credit, including zero/low interest overdrafts or special treasury bills.
  - Forced borrowing from suppliers either through expenditure arrears or through the issuance of promissory notes. This practice tends to raise the price of government expenditures.
  - Creating a captive market for government securities. For example, in some countries the government pension plan is required to buy government securities. In other cases, banks are required to acquire government bonds against a certain percentage of their deposits. While such liquid asset ratios can sometimes serve as a useful prudential tool for liquidity management, they have distortionary effects on debt servicing costs, as well as on financial market development.
- 5) *Improper oversight and/or recording of debt contracting and payment, and/or of debt holders.* Government control over the tax base and/or the supply of outstanding debt is reduced.
  - Failing to record implicit interest on zero-interest long-term bonds. While helping the cash position of the government, if the implicit interest is not recorded, the true deficit is understated.
  - Too broad an authority to incur debt. This can be due to the absence of parliamentary reporting requirements on debt incurred, or the absence of a borrowing limit or debt ceiling. However, the authority must ensure that existing debt service obligations are met.

Identifying and managing market risk involves examining the financial characteristics of the revenues and other cash flows available to the government to service its borrowings, and choosing a portfolio of liabilities which matches these characteristics as much as possible. When they are available, hedging instruments can be used to move the cost and risk profile of the debt portfolio closer to the preferred portfolio composition.

Some emerging market governments would be well served to accept higher liquidity premia to keep rollover risks under control, since concentrating the debt in benchmark issues at key points along the yield curve may increase rollover risk. On the other hand, reopening previously issued securities to build

benchmark issues can enhance market liquidity, thereby reducing the liquidity risk premia in the yields on government securities and lowering government debt service costs. Governments seeking to build benchmark issues often hold liquid financial assets, spread the maturity profile of the debt portfolio across the yield curve, and use domestic debt buybacks, conversions or swaps of older issues with new issues to manage the associated rollover risks.

Some debt managers also have treasury management responsibilities.<sup>28</sup> In countries where debt managers are also responsible for managing liquid assets, debt managers have adopted a multi-pronged approach to the management of credit risk inherent in their investments in liquid financial assets, and financial derivatives transactions.<sup>29</sup> In countries where credit ratings are widely available, debt managers should limit investments to those that have credit ratings from independent credit rating agencies that meet a preset minimum requirement. All governments, however, should set exposure limits for individual counterparties that take account of the government's consolidated financial exposures to that counterparty arising from debt and foreign exchange reserves management operations. Credit risk can also be managed by holding a diversified portfolio across a number of acceptable financial counterparties and also through collateral agreements. Settlement risk is controlled by having clearly documented settlement procedures, which ensure that the separation of settlement roles is respected, and limits are often placed on the size of payments flowing through any one settlement bank.

*In order to help guide borrowing decisions and reduce the government's risk, debt managers should consider the financial and other risk characteristics of the government's cash flows.*

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<sup>28</sup> In some countries debt managers also have responsibility for the management of some foreign exchange reserve assets. This paper does not address this issue.

<sup>29</sup> Financial derivatives most commonly used by debt managers include interest rate swaps and cross-currency swaps. Interest rate swaps allow debt managers to adjust the debt portfolio's exposure to interest rates; e.g., by synthetically converting a fixed-rate obligation into a floating-rate one. Similarly, a cross-currency swap can be used to synthetically change the currency exposure of a debt obligation. In addition, some countries have issued debt with embedded call or put options.

Debt structures which entail extremely "lumpy" cash flows should, to the extent possible, be avoided. An issue for the debt manager is whether to examine the debt structure in isolation, or whether risk management is better served by also considering the nature of the government's revenues and cash flows. Although it may be difficult for a government to produce a full balance sheet, conceptually all governments have such a balance sheet, and consideration of the financial and other risks of the government's assets can provide the debt manager with important insights for managing the risks of the government's debt portfolio. For example, a conceptual analysis of the government's balance sheet may provide debt managers with some useful insights about the extent to which the currency structure of the debt is consistent with the revenues and cash flows available to the government to service that debt. In most countries, these mainly comprise tax revenues, which are usually denominated in local currency. In this case, the government's balance sheet risk would be reduced by issuing debt primarily in long-term, fixed rate, domestic currency securities.<sup>30</sup> For countries without well-developed domestic debt markets, this may not be feasible, and governments are often faced with the choice between issuing short-term or indexed domestic debt and foreign currency debt. Issues such as crowding out of private sector borrowers and the difficulties of issuing domestic currency debt in highly dollarized economies also should be considered. But the financial analysis of the government's revenues and cash flows provides a sound basis for measuring the costs and risks of the feasible strategies for managing the government's debt portfolio. The asset and liability management approach is summarized in box 3.

Some countries have extended this approach to include other government assets and liabilities. For example, in some countries where the foreign exchange reserves are funded by foreign currency borrowings, debt managers have reduced the government's balance sheet risk by ensuring that the currency

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<sup>30</sup> Tax revenues could be supplemented by profits from state-owned enterprises (including the central bank), and on occasion by proceeds from the privatization of government operations and state-owned enterprises. These proceeds could be denominated in either local or foreign currency.

**Box 3: Asset and Liability Management**

Some governments are seeking to learn from companies that have successfully managed their core business and financial risks. Financial intermediaries, for example, seek to manage their business and financial risks by matching the financial characteristics of their liabilities to their assets (off as well as on-balance sheet), given their core business objectives. This approach is known as asset and liability management (ALM). For example, a life insurance company is in the business of selling life insurance policies, which have a relatively stable expected long-term payment structure as determined by actuarial tables of expected mortality. To minimize its financial risk, a life insurance company will invest the proceeds of its policy sales in long-term assets to match the expected payout on its policies.

In some ways a government resembles a company. It receives revenues from taxpayers and other sources, and uses them to pay operating expenses, make transfer payments, purchase foreign exchange, invest in public infrastructure and state-owned enterprises, and meet debt-servicing costs. A government may also make loans and provide guarantees, both explicit and implicit. These various government operations may be undertaken to fulfill a broad range of macroeconomic, regulatory, national defense, and social policy objectives. However, in the process a government incurs financial and credit risks, which can be managed by considering the types of risks associated with both its assets and liabilities.

There are important differences between the role of the government and that of private companies. While some governments have attempted to produce a balance sheet quantifying the value of their assets and liabilities, and more governments may attempt this in the future, this is not essential for the ALM approach. Instead, the objective of the ALM approach is to consider the various types of assets and obligations the government manages and explore whether the financial characteristics associated with those assets can provide insights for managing the cost and risk of the government's liabilities. This analysis involves examining the financial characteristics of the asset cash flows, and selecting, to the extent possible, liabilities with matching characteristics. If full matching is not possible, or is too costly, the analysis of cash flows also provides a basis for measuring the risks of the liability portfolio and measuring cost/risk tradeoffs.

Using a conceptual ALM framework for the debt management problem can be a useful approach for several reasons. At a minimum, it grounds the cost/risk analysis of the government's debt portfolio into an analysis of the government's revenues which will be used to service that debt, which, in most cases are denominated by the government's tax revenues. It enables the government debt managers to consider the other types of assets and liability portfolios the government manages, besides its tax revenues and direct debt portfolio. Assessing the main risks around these portfolios can help a government design a comprehensive strategy to help reduce the overall risk in its balance sheet. The ALM approach also provides a useful framework for considering governance arrangements for managing the government's balance sheet. This could, for example, involve deciding whether the government should maintain an ownership interest in producing particular goods and services, and the best organizational structure for managing the assets it wishes to retain.

The ALM approach to managing the government's exposure to financial risks is discussed in more detail in the forthcoming World Bank publication *Sound Practices in Sovereign Debt Management*.

composition of the debt that backs the reserves, after taking account of derivatives and other hedging transactions, reflects the currency composition of the reserves. However, other countries have not adopted this practice because of considerations relating to exchange rate objectives and the institutional framework, including intervention and issues related to the role and independence of the central bank.

*Debt managers should take into account the risks associated with foreign-currency and short-term debt.* Debt management strategies that include an over reliance on foreign currency or foreign currency-indexed debt and short-term debt (including floating-rate debt) are very risky. For example, while foreign currency debt may appear, ex-ante, to be less expensive than domestic currency debt of the same maturity (given that the latter may include higher currency risk and liquidity premia), it could prove to be costly in volatile capital markets or if the exchange rate depreciates. Debt managers should also be aware of the fact that the choice of exchange rate regime can affect the links between debt management and monetary policy. For example, foreign currency debt may appear to be cheaper in a fixed exchange rate regime because the regime caps exchange rate volatility. However, such debt can prove to be very risky if the exchange rate regime becomes untenable.

Short-term debt (whether domestic or foreign currency denominated), which may appear, ex-ante, to be less expensive over the long run in a positively sloped yield curve environment, can create substantial rollover risk for the government. It may also constrain the central bank from raising interest rates to address inflation or support the exchange rate because of concerns about the short-term impact on the government's financial position- even though such actions might be appropriate from the viewpoint of macroeconomic management. This could exacerbate macro-vulnerabilities if there is a sudden shift in market sentiment as to the government's ability to repay, or when contagion effects from other countries lead to markedly higher interest rates. Many emerging market governments have too much short-term and floating-rate debt. However, over reliance on longer-term financing also carries risks if, in some circumstances, it tempts governments to deflate the value of such debt in real terms by initiating surprise inflation. Any such concerns would be reflected in current and future

borrowing costs. Also, unexpected disinflation would increase the ex-post debt-servicing burden in real terms. This could create strains in countries, which because of an already heavy debt burden, have to pay a higher risk premium.

*There should be cost-effective cash management policies in place to enable the authorities to meet with a high degree of certainty their financial obligations as they fall due.* The need for cost-effective cash management recognizes that the window of opportunity to issue new securities does not necessarily match the timing of planned expenditures. In particular, for governments lacking secure access to capital markets, liquid financial assets and contingent credit lines can provide flexibility in debt and cash management operations in the event of temporary financial market disturbances. They enable governments to honor their obligations, and provide flexibility to absorb shocks where access to borrowing in capital markets is temporarily curtailed or very costly. However, liquid assets are a more secure source of funds than unconditional, contingent credit lines, since financial institutions called upon to provide funds under these lines may attempt to prevent their exposures from expanding by withdrawing other lines from the government. On the other hand, some governments that do have secure access to capital markets prefer to minimize their holdings of liquid financial assets and instead rely on short-term borrowings and overdraft facilities to manage day-to-day fluctuations in their revenues and cash flows. In any event, the search for liquidity creates a challenge for cash managers that might be more easily dealt with if debt and cash management functions are integrated in the same institution or work in close collaboration.

Appropriate policies related to official foreign exchange reserves can also play a valuable role in increasing a government's room for maneuver in meeting its financial obligations in the face of economic and financial shocks. Box 4 summarizes some macroeconomic indicators that can be used as a starting point for assessing a country's external vulnerability.<sup>31</sup> More broadly, the level of foreign exchange

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<sup>31</sup> Additional information on the motivations for holding foreign exchange reserves and factors influencing the adequacy of reserves under different exchange rate regimes can be found in "Debt- and



reserves should be set in accordance with the government's access to capital markets, the exchange rate regime, the country's economic fundamentals, the cost of carrying reserves, and the amount of short-term foreign currency debt outstanding. Governments lacking secure access to international capital markets could consider holding reserves that bear an appropriate relationship to their country's short-term external debt, regardless of whether that debt is held by residents or nonresidents. In addition, there are some indicators specific to the government's debt situation that debt managers need to consider. Debt to GDP and to tax revenue, for example, would seem to be very relevant for public debt management, as would indicators such as the debt service ratio, the average interest rate, various maturity indicators, and indicators of the composition of the debt.

### **Risk Management Framework**

*A framework should be developed to enable debt managers to identify and manage the trade-offs between expected cost and risk in the government debt portfolio.* Sovereign debt managers typically manage several types of risk, as summarized in Box 1. An important role of the debt manager is to identify these risks, assess to the extent possible their magnitude, and develop a preferred strategy for managing the trade-off between cost and risk. Following government approval, the debt manager also is normally responsible for the implementation of the portfolio management and risk management policies. To carry out these responsibilities, debt managers should have access to a range of financial and macroeconomic projections. Where available, debt managers should also have access to an accounting of official assets and liabilities, on a cash or accrual basis. They also require complete information on the schedule of future coupon and principal payments and other characteristics of the government's debt obligations.

*To assess risk debt managers should regularly conduct stress tests of the debt portfolio on the basis of the economic and financial shocks to which the government—and the country*

**Box 4: Overview of Indicators of External Vulnerability**

<b>Indicators of Reserve Adequacy</b>	
<b>Indicator</b>	<b>Description</b>
Ratio Reserves to Short-Term External Debt	Single most important indicator of reserve adequacy in countries with significant but uncertain access to capital markets. Should be based on measure of reserves consistent with the Balance of Payments Manual, Fifth Edition and operational guidelines for <i>Special Data Dissemination Standard</i> reserves template, and a comprehensive measure of short-term debt of the public and private sectors on a remaining maturity basis.
Ratio of Reserves to Imports	Useful measure for reserve needs for countries with limited access to capital markets; effectively scales the level of reserves to the size and degree of openness of the economy.
Ratio of Reserves to Broad Money	Measure of the potential impact of a loss of confidence in the domestic currency, leading to capital flight by residents. Particularly useful if the banking sector is weak and/or credibility of the exchange rate regime remains to be established. There are, however, other potential sources of capital flight as well.
<b>Debt-Related Indicators</b>	
Ratio of External Debt to Exports	Useful indicator of trend in debt that is closely related to the repayment capacity of the country.
Ratio of External Debt to GDP	Useful indicator of relating debt to resource base (reflecting the potential of shifting production to exports so as to enhance repayment capacity).
Average Interest Rate on External Debt	Useful indicator of borrowing terms. In conjunction with debt/GDP and debt/export ratios and growth outlook, a key indicator for assessing debt sustainability.
Average Maturity	Useful for homogeneous categories such as nonconcessional public sector debt, to track shortening of maturities or efforts to limit future vulnerabilities.
Share of Foreign Currency External Debt in Total External Debt	Useful indicator of the impact of exchange rate change on debt (balance sheet effect), especially in conjunction with information on derivatives that transform the effective currency composition

Source: "Debt- and Reserve-Related Indicators of External Vulnerability" (SM/OO/65), IMF, 2000.

more generally—are potentially exposed. This assessment is often conducted using financial models ranging from simple scenario-based models, to more complex models involving highly sophisticated statistical and simulation techniques. When constructing such assessments, debt managers need to factor in the risk that the government will not be able to roll over its debt and be forced to default, which has costs that are broader than just to the government's budget. Moreover, debt managers should consider the interactions between the government's financial situation and those of the financial and non-financial sectors in times of stress in order to ensure that the government's debt management activities do not exacerbate risks in the private sector.<sup>32</sup> In general, models used should enable government debt managers to undertake the following types of risk analysis:

- Project future debt servicing costs over a medium- to long-term horizon based on assumptions regarding factors affecting debt-servicing capability, such as: new financing requirements; the maturity profile of the debt stock; interest rate and currency characteristics of new debt; projections for future interest rates and exchange rates; and the behavior of relevant non-financial variables (e.g., commodity prices for some countries);
- Generate a “debt profile,” consisting of key risk indicators of the existing and projected debt portfolio over the projected horizon;<sup>33</sup>
- Compute the expected cost of the debt in terms that are relevant to the government's objectives; (e.g., in terms of the impact on the government's budget);
- Calculate the risk of future debt servicing costs in real terms by summarizing the results of stress tests that are formulated on the basis of the economic and financial

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<sup>32</sup> Of course, governments should also take corrective measures, such as eliminating policy biases that may encourage excessive risk-taking by the private sector.

<sup>33</sup> A typical profile will include such indicators as the share of short-term to long-term debt, the share of foreign currency to domestic debt, the currency composition of the foreign currency debt, the average maturity of the debt, and the profile of maturing debts.

shocks to which the government and the country more generally are potentially exposed;<sup>34</sup> and

- Summarize the costs and risks of alternative strategies for managing the government's debt portfolio as a basis for making informed decisions on future financing alternatives.

Debt managers in well-developed financial markets typically follow one of two courses: periodically determine a desired debt structure to guide new debt issuance for the subsequent period, or set strategic benchmarks to guide the day-to-day management of the government's debt portfolio. Such benchmarks typically are expressed as numerical targets for key portfolio risk indicators, such as the share of short-term to long-term debt, or the share of foreign currency to domestic currency debt. The key distinction between these two approaches is the extent to which debt managers operate in financial markets on a regular basis to adhere to the “benchmark.” However, such approaches may be less applicable for countries with less-developed financial markets owing to, for example, the lack of opportunity to issue longer-term securities domestically. Many emerging countries have found it useful to establish guidelines for new debt in terms of the desired maturities, interest rate structure, and currency composition. These guidelines often incorporate the government's strategy for developing the domestic debt market.

For those governments that frequently adjust their debt stock, strategic benchmarks can be powerful management tools because they represent the portfolio structure that the government would prefer to have, based on its preferences with respect to expected cost and risk. As such, they can help guide sovereign debt managers in their portfolio and risk management decisions, for example, by requiring that debt management decisions move the actual portfolio closer to the strategic benchmark portfolio.<sup>35</sup> These managers strive to

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<sup>34</sup> Risk is typically measured as the potential increase in debt servicing costs under the risk scenarios relative to the expected cost.

<sup>35</sup> However, debt managers should be mindful of the transaction costs associated with continuously rebalancing the debt portfolio to mirror the benchmark, as well as the costs associated with making a major shift in the structure of the portfolio over a short period of time. Common

ensure that the design of their strategic benchmarks is supported by a risk management framework that ensures the risks are well specified and managed, and that the overall risk of their debt portfolios is within acceptable tolerances. Where markets are well developed, debt managers should try to ensure that their desired debt structures or strategic benchmarks are clear and consistent with the objectives for debt management, and publicly disclosed and explained.

**Scope for Active Management**

Debt managers who seek to actively manage the debt portfolio to profit from expectations of movements in interest rates and exchange rates, which differ from those implicit in current market prices, should be aware of the risks involved and accountable for their actions. These risks include possible financial losses, conflicts of interest, and adverse signaling with respect to monetary and fiscal policies. In order to be able to lower borrowing costs and/or reduce risk by taking market views, debt managers require information, which is superior to that of other market participants and must also be able to transact in an efficient manner. The former criteria in particular provide a very difficult test for a debt manager, especially in foreign capital markets. In these markets, debt managers generally have little or no information on the nature of financial flows beyond that available in the market generally. Even so, some governments actively manage their foreign currency debt in the hope of generating risk-adjusted returns, or to enable their portfolio managers to accumulate greater market knowledge, in an attempt to generate cost savings on major borrowings. Many governments do not consider it appropriate to undertake such tactical trading. In cases where such trading is permitted, it should be conducted under clearly defined portfolio guidelines with respect to position and loss limits, compliance procedures, and performance reporting. In countries where it is done at all, it normally comprises only a small fraction of a government's portfolio management activities.

Debt managers may have much greater information on financial flows in the domestic market and the financial

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practice is therefore to express the benchmark characteristics as a range for currency composition, interest rate duration, and level of refinancing.

condition of market participants due to the government's privileged role as supervisor or regulator of the financial system. However, most governments consider it unwise and unethical to try and capitalize on such inside information, particularly in the domestic market. This is because the government is usually the dominant issuer of debt in the domestic market, and it risks being perceived as manipulating the market, if it buys and sells its own securities or uses derivatives for the purpose of trying to generate additional income. Moreover, if the debt managers adopt interest rate or currency positions, their actions could also be interpreted as signaling a government view on the desired future direction of interest rates or the exchange rate, thereby making the central bank's task more difficult.

**Contingent Liabilities**

Debt managers should consider the impact that contingent liabilities have on the government's financial position, including its overall liquidity, when making borrowing decisions. Contingent liabilities represent potential financial claims against the government which have not yet materialized, but which could trigger a firm financial obligation or liability under certain circumstances. They may be explicit (such as government guarantees and government insurance schemes, as well as put options on government securities) or implicit, where the government does not have a contractual obligation to provide assistance, but decides to do so because it believes the cost of not intervening is unacceptable. (Examples could include disaster relief and possible bailouts in the financial sector or state-owned enterprises or municipalities). Unlike most government financial obligations, however, contingent liabilities have a degree of uncertainty—they may be exercised only if certain events occur, and the size of the fiscal payout depends on the structure of the undertaking. Moreover, if structured without appropriate incentives or controls, they are often associated with moral hazard for the government, since making allowances ahead of time can increase the probability of these liabilities being realized. As a result, governments need to balance the benefits of disclosure with the moral hazard consequences that may arise with respect to contingent liabilities, particularly if the obligation is implicit.

Governments should monitor the risk exposures they are entering into through their explicit contingent liabilities, and ensure that they are well informed of the associated risks of such liabilities. They should also be conscious of the conditions that could trigger implicit contingent liabilities, such as poor asset and liability management practices in the banking sector. Some governments have found it useful to centralize this monitoring function. In all cases, the debt managers should be aware of the contingent liabilities that the government has entered into.

The fiscal authorities should also consider making allowances for expected losses from contingent liabilities. In cases where it is not possible to derive reliable cost estimates, the available information on the cost and risk of contingent liabilities or a liquidity drain can be summarized in the notes to the budget tables or the government's financial accounts, since contingent liabilities may represent a significant balance sheet risk for a government.

Governments can also do a great deal to reduce the risks associated with contingent liabilities by strengthening prudential supervision and regulation, introducing appropriate deposit insurance schemes, undertaking sound governance reforms of public sector enterprises, and improving the quality of their macroeconomic management and other regulatory policies.

### **Development and Maintenance of an Efficient Market for Government Securities**

*In order to minimize cost and risk over the medium to long run, debt managers should ensure that their policies and operations are consistent with the development of an efficient government securities market.* An efficient market for securities provides the government with a mechanism to finance its expenditures in a way that alleviates the need to rely on the central bank to finance budget deficits. Moreover, by promoting the development of a deep and liquid market for its securities, debt managers, in tandem with supervisors and regulators of financial institutions, and market participants (see box 5) can achieve lower debt service costs over the medium- to long-term as liquidity premia embedded in the

### **Box 5: Relevant Conditions for Developing an Efficient Government Securities Market**

In most countries, the development of a government securities market has been pivotal in helping to create a liquid and efficient domestic debt market. Although countries have adopted different approaches in the timing and sequencing of measures to develop these markets, the main elements of many of these programs are summarized below. One important prerequisite for building investor confidence is a track record of a sound macroeconomic environment. This includes implementing appropriate fiscal and monetary policies, coupled with a viable balance of payments position and exchange rate regime. In addition, developing a domestic securities market involves addressing, even in the nascent stages, securities market regulation, market infrastructure, the demand for securities, and the supply of securities.

Early steps in developing *securities market regulation* to support the issuance and trading of government securities include:

- establishing a legal framework for securities issuance;
- developing a regulatory environment to foster market development and enable sound supervisory practices to be enforced; and
- introducing appropriate accounting, auditing, and disclosure practices for financial sector reporting.

*Market infrastructure* to help build market liquidity and reduce systemic risk can be developed over time by:

- introducing trading arrangements suitable for the size of the market, which include efficient and safe custody, clearing, and settlement procedures;
- encouraging the development of a system of market-makers to enable buyers and sellers to transact efficiently at prices reflecting fair value;
- removing any tax or other regulatory impediments, which may hamper trading in government securities; and
- fostering, at a later stage, the scope for other money market and risk management instruments, such as repos and interest rate futures and swaps.

Strengthening *the demand* for government securities involves acting on a broad front to build the potential investor base through measures such as:

- removing regulatory distortions, which inhibit the development of institutional investors (e.g., pension reform);
- eliminating below-market-rate funding through captive investor sources; and
- implementing appropriate rules and regulatory regime affecting participation by foreign investors in the domestic market.

In developing *the supply* of government securities the key elements for establishing an efficient primary market include:

- establishing clear objectives for security issuance and debt management;
- developing basic projections of the government's liquidity needs;
- creating safe and efficient channels for the distribution of securities (e.g., auctions, syndication, possible use of primary dealers) targeted to investor needs and thereby lowering transaction costs;
- progressively extending the maturity of government securities;
- consolidating the number of debt issues and creating standardized securities with conventional maturities with a view to eventually provide market benchmarks; and
- moving towards a predictable and transparent debt management operation, e.g., with pre-announced issuance calendars, and greater disclosure of funding needs and auction outcomes.

The development of government securities markets is discussed in more detail in *Developing Domestic Debt Markets: A Practitioner's Manual*, World Bank in cooperation with the International Monetary Fund (forthcoming).



yields on government debt wane.<sup>36</sup> In addition, where they have low credit risks, the yields on government securities serve as a benchmark in pricing other financial assets, thereby serving as a catalyst for the development of deep and liquid money and bond markets generally. This helps to buffer the effects of domestic and international shocks on the economy by providing borrowers with readily accessible domestic financing, and it is especially valuable in times of global financial instability, when lower quality credits may find it particularly difficult to obtain foreign funding. Governments should exercise particular care in borrowing in external markets and, in managing, to the extent possible, nonresidents' access to domestic markets.

Experience suggests there is no single optimal approach for developing an efficient market for government securities. OECD countries, for example, have established government securities markets using a wide range of approaches involving different sequencing of reforms and speed of deregulation. But, experiences in developing these markets in many countries demonstrate the importance of having a sound macroeconomic policy framework, well-designed reforms to adopt and develop market-based monetary policy instruments, and careful sequencing in removing regulations around the capital account.

### **Portfolio Diversification and Instruments**

*The government should strive to achieve a broad investor base for its domestic and foreign obligations, with due regard to cost and risk, and should treat investors equitably.* Debt issuers can support this objective by diversifying the stock of debt across the yield curve or through a range of market instruments. Such actions could be particularly beneficial to emerging market countries seeking to minimize rollover risk. At the same time, issuers need to be mindful of the cost of doing this and the market distortions that might arise, since

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<sup>36</sup> Some governments are finding that declining government financing requirements have led to reduced liquidity in their government debt markets. This has triggered a debate regarding the benefits of rapidly paying down the debt stock. Partly as an alternative to extensive debt buybacks, a few governments are considering continuing to issue some debt to maintain a pool of financial assets.

investors may favor particular segments of the yield curve, or specific types of instruments. And, in less-developed markets, the nominal yield curve may extend only to relatively short-term securities. Attempting to extend the yield curve quickly beyond that point may be impractical or infeasible. This has led some emerging market countries to issue large amounts of longer-term inflation-indexed debt and floating-rate debt, since such debt may be attractive to investors in countries where government indebtedness is high, and the credibility of the monetary authorities is low.

As investors seek to diversify their risks through buying a range of securities and investments, debt managers should attempt to diversify the risks in their portfolios of liabilities by issuing securities at different points along the yield curve (different maturity dates), issuing securities at different points during the year (rather than issue a large amount of securities in a single offering), offering securities with different cash flow characteristics (for example, fixed coupon or floating rate, nominal or indexed) and securities targeted at specific investors (for example, wholesale or retail investors, or in certain circumstances, domestic and foreign investors).<sup>37</sup> In so doing, debt managers should strive to treat investors equitably and, where possible, develop the overall liquidity of their debt instruments. This would increase their attractiveness to investors, and reduce the liquidity premium that investors demand. A well-balanced approach aimed at broadening the investor base and spreading rollover risks, while at the same time recognizing the benefits of building liquid benchmark issues, should contribute to the objective of lowering debt costs over the long run.

Offering a range of debt management instruments with standardized features in the domestic market helps make financial markets more complete, which enables all participants to better hedge their financial commitments and exposures, thus contributing to reduced risks premia and vulnerability in the economy more generally.

Where appropriate, issuing instruments with embedded options (such as savings bonds, which are redeemable by the bondholder on demand) may also contribute to instrument

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<sup>37</sup> Some countries are considering attaching renegotiation or collective action clauses to their debt instruments, such as majority voting rules.

diversification. However, even where valid reasons exist for issuing such securities, debt managers should exercise considerable caution to ensure that the risks inherent in embedded options and other derivative instruments are integrated in the risk management framework, and that the instruments and risks are well understood by the issuer and other market participants.

### **Primary Market**

Debt management operations in the primary market should be transparent and predictable. Regardless of the mechanism used to raise funds, experience suggests that borrowing costs are typically minimized and the market functions most efficiently when government operations are transparent—for example, by publishing borrowing plans well in advance and acting consistently when issuing new securities—and when the issuer creates a level playing field for investors. The terms and conditions of new issues should be publicly disclosed and clearly understood by investors. The rules governing new issues should treat investors equitably. And, debt managers should maintain an ongoing dialogue with market participants and monitor market developments so that they are in a position to react quickly when circumstances require.

To the extent possible debt issuance should use market-based mechanisms including competitive auctions and syndications. In the primary market for government securities, best practice suggests that governments typically strive, where feasible, to use market-based mechanisms to raise funds. For domestic currency borrowings, this typically involves competitive auctions of government securities, although syndications have been successfully used by borrowers that do not have a need to raise funds on a regular basis, or are introducing a new instrument to the market.<sup>38</sup> Governments should rarely cancel auctions because of market conditions, or

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<sup>38</sup> Some governments have found that introducing a network of market-makers can be a useful mechanism for distributing securities and fostering deep and liquid markets. Some countries have used primary dealers for this role, while others have sought to encourage a more open financial marketplace. Where primary dealers operate, the incentives and obligations, as well as eligibility criteria to become a primary dealer, need to be defined and disclosed.

cut off the amounts awarded below the preannounced tender amount in order to achieve short-run debt service cost objectives. Experience has shown that such practices affect credibility and damage the integrity of the auction process, causing risk premia to rise, hampering market development, and causing long-run debt service costs to increase.

### **Secondary Market**

Governments and central banks should promote well-functioning secondary markets under a wide range of market conditions. In many countries, debt managers and central banks work closely with financial sector regulators and market participants in this regard. This includes supporting market participants in their efforts to develop codes of conduct for trading participants, and working with them to ensure that trading practices and systems continuously evolve and reflect best practices. It can also include promoting the development of an active repo market, in order to enhance liquidity in the underlying securities, and minimize credit risk through collateralization.<sup>39</sup>

A government can promote the development and maintenance of an efficient secondary market for its securities by removing taxation and regulatory impediments that hinder investors' willingness to trade securities. These include removing possible regulations that provide captive funding from financial intermediaries to the government at low interest rates, and modifying tax policies that distort investment in and trading of financial and non-financial assets. In addition, government approaches to regulating financial markets and market participants often include a wide range of disclosure and supervision requirements to reduce the risk of fraud, and limit the risk that market participants may adopt imprudent asset and liability management practices that could increase the risk of insolvency and systemic failure in the financial system.

Central banks play a crucial role in promoting the development and maintenance of efficient markets for government securities through the pursuit of sound monetary

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<sup>39</sup> Committee on the Global Financial System. "How Should We Design Deep and Liquid Markets? The Case of Government Securities." *Bank for International Settlements*. Basel, October 1999.

policies. By conducting monetary policy in a way that is consistent with their stated monetary policy objectives, central banks help to increase the willingness of market participants to engage in transactions across the yield curve. Central banks are increasingly implementing monetary policy using indirect instruments that involve transactions in government securities. Proper design and use of such instruments have typically played an important role in contributing to deep and liquid markets for these securities. For example, day-to-day open market operations to implement monetary policy can foster adequate market liquidity, thereby contributing to well-functioning financial markets.

*The systems used to settle and clear financial market transactions involving government securities should reflect sound practices.*<sup>40</sup> Sound and efficient payments, settlement, and clearing systems help to minimize transaction costs in government securities markets and contain system risk in the financial system, thereby contributing to lower financing costs for the government. Agencies responsible for the payments, settlement and clearing systems for financial transactions normally work closely with market participants to ensure that these systems are able to function well under a wide range of trading conditions.

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<sup>40</sup> Relevant work in this area includes: The Group of Thirty (G-30) recommendations on clearance and settlement of securities transactions (1989), which cover nine general principles including such aspects as central depositories, netting schemes, delivery versus payment, settlement conventions, and securities lending; the Disclosure Framework for Securities Settlement Systems published by the Committee on Payment and Settlement Systems (CPSS) and the International Organization of Securities Commissions (IOSCO), 1997; and the consultative report on Core Principles for Systemically Important Payment Systems being prepared by the CPSS, 2000.

# 6

## LOOKING BEYOND THE BUDGET DEFICIT

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Source: Shah, Anwar, editor (2003), *Ensuring Accountability When There Is No Bottom Line*, Vol. 1 of *Handbook on Public Sector Performance Reviews*. Washington D.C.: The World Bank.

### Abstract

For the past twenty years, the actual growth of debt in developing countries has been much greater than the accumulated sum of conventional budget deficits. There are a variety of measurement and methodological reasons as to why this is the case, and why developing countries are more susceptible to suffer problems of hidden deficits than developed countries.

### Introduction

Many economists and policymakers view “budget deficit” as a summary measure of the fiscal position of the government. It is calculated as the difference between revenue on the one hand, and expenditure and lending minus repayments on the other. Although straightforward to compute, given alternative methodologies, various measurement issues, different valuation techniques, and other complexities, the computation of budget deficit in practice can be a complicated exercise. While most of us pay a lot of attention to the reported budget deficit number, few care little about the accounting procedure used to derive this number. The general impression is that, in terms of magnitude, the methodology and measurement related issues are of minor importance.

But keen observers of budgetary accounting practices would argue otherwise. For example, Blejer and Cheasty (1991) note that, conventional measures of the fiscal deficit miscalculate the public sector’s true budget constraint and give a misleading picture of the economy’s fiscal stance. Daniel, Davis and Wolfe (1997), who focus on the fiscal accounting of bank restructuring, find that in many countries non-cash operations are excluded from the budget, and these exclusions are significant. Easterly (1998) notes that countries have managed to meet IMF's budget deficit target without a

proportionate decline in their total indebtedness, either by drawing down their assets or by shifting expenses to the outside bounds of the budget. Brixi, Ghanem and Islam (1999) find that in some Eastern European countries a significant amount of government activities, including expenditure on programs geared towards bank revitalization, are financed outside the budgetary system. Kharas and Mishra (2000a) show that off-budget expenses, including debt stock adjustments reflecting valuation changes and the assumption of contingent liabilities by the government, have been quantitatively much more significant in debt accumulation than reported budget deficits in many developing countries.

Despite such obvious limitations of the budget deficit—as it is being conventionally estimated—why does it continue to remain the leading indicator of fiscal health of the government? We think, the simple reason is that, there has not been any systematic attempt to find out how large are the deficits that are not captured in the reported budget deficit numbers, but affect the total liabilities of the government

In this paper, we show that budget deficit can grossly underestimate, and in few rare instances overestimate, the true fiscal indebtedness of the government. The difference between the actual indebtedness and reported deficit, which we call the “hidden deficit”, is found to be significantly higher in developing than in developed countries. For many developing countries, hidden deficits are found to be as high as the reported deficit. It is also noted that hidden deficits are large immediately preceding and following financial crises, indicating that hidden deficits are not randomly generated but part of a strategic budgetary exercise to report lower than actual deficit during periods of economic distress.

A number of factors are identified which have contributed to emergence of the hidden deficits. Primary among them are: non-inclusion or partial-inclusion of corporate and bank restructuring expenses; treatment of present and expected future costs of entitlements and contingent liabilities; exclusion of capital gains and losses from the budget; use of different valuation methods; and use of grants and aids to finance budget deficit.

The real issue here is the current budgetary accounting practices and guidelines, which leave room for discretion and encourage financial engineering. Such practices may help a

country to avoid underlying real fiscal adjustment in the short run, but in the long run it is counter-productive, as the country pays dearly in the form of fiscal or financial crises. So it is important to put in place appropriate accounting practices, and guidelines, and set-up independent Central Budget Office (CBO) to remove discretion in measurement of the budget deficit.

The rest of the chapter is organized as follows. In Section II, we show that there are many factors other than conventional deficit, which contribute to the total indebtedness of the government. In Section III, we estimate the size of hidden deficits and show that they are significantly large for developing countries. In Section IV, we examine the various sources of hidden deficits, like restructuring of financial system and corporations following a financial crisis, capital gains and losses from currency movements and so on. The last section concludes with discussion on the need to reform the current budgetary accounting practices and guidelines in many developing countries.

### **Debt and Deficit: Some Simple Algebra**

In this section, we summarize some basic algebra to show that conventional budget deficit is only one of the many components affecting the total indebtedness of the government. The government budget can be written as:

$$E_t (B_t^e - B_{t-1}^e) + (B_t^d - B_{t-1}^d) + (H_t - H_{t-1}) = D_t + X_t \quad (1)$$

where  $B_t^e$  is the total foreign currency debt (expressed in US dollar),  $B_t^d$  is the total domestic debt in local currency unit (LCU),  $H_t$  is the base money in LCU,  $E_t$  is the nominal exchange rate vis-à-vis US dollar,  $D_t$  is the conventional (reported) budget deficit in LCU and  $X_t$  is the expenditures in LCU incurred outside the bounds of the budget.

Dividing by  $P_t Y_t$  (where  $P_t$  is the price index, and  $Y_t$  is the real GDP) throughout and after making few manipulations one gets:



$$\left( \frac{E_t B_t^e}{P_t Y_t} - \frac{P_{t-1} Y_{t-1}}{P_t Y_t} \frac{E_t}{E_{t-1}} \frac{E_{t-1} B_{t-1}^e}{P_{t-1} Y_{t-1}} \right) + \left( \frac{B_t^d}{P_t Y_t} - \frac{P_{t-1} Y_{t-1}}{P_t Y_t} \frac{B_{t-1}^d}{P_{t-1} Y_{t-1} - 1} \right) + \left( \frac{H_t - H_{t-1}}{P_t Y_t} \right) = \frac{D_t}{P_t Y_t} + \frac{X_t}{P_t Y_t} \quad (2)$$

Using lower case letters to denote the corresponding upper case letters as a percentage of GDP, namely,  $b_t^e = \frac{E_t B_t^e}{P_t Y_t}$ ,  $b_t^d = \frac{B_t^d}{P_t Y_t}$ ,  $d_t = \frac{D_t}{P_t Y_t}$ ,  $x_t = \frac{X_t}{P_t Y_t}$ ,  $s_t = \frac{(H_t - H_{t-1})}{P_t Y_t}$  and denoting the growth rate of nominal GDP as  $g$ , inflation rate as  $\pi$  and nominal depreciation rate as  $\varepsilon$  and after a few more manipulations, one can write the above equation as:

$$(b_t - b_{t-1}) = \left( \frac{-g}{1+g+\pi} \right) b_{t-1} + \left( \frac{\varepsilon - \pi}{1+g+\pi} \right) b_{t-1}^e + \left( \frac{-\pi}{1+g+\pi} \right) b_{t-1}^e - s_t + d_t + x_t \quad (3)$$

where  $b_t$  denotes the total debt (foreign currency plus domestic currency) as a percentage of GDP. Thus the change in debt-GDP ratio can be decomposed into six components:

Change in debt-GDP ratio = Contribution of growth (A) +  
 Movement of real exchange rate (B) + Domestic inflation (C) +  
 Conventional deficit (D) +  
 Seignorage revenue (E) +  
 Expenditures outside the purview of the budget (F)

The above decomposition shows that, theoretically, conventional deficit is only one of the six components contributing to the accumulation of government debt. The important question is, what is the contribution of conventional deficit to debt accumulation vis-à-vis these other components? To do so we introduce a new measure—hidden deficit—which measures the change in indebtedness of the government, outside of conventional budget deficit and seignorage revenue. Thus, hidden deficit is measured as the sum of three components: B+C+F.

### Size of Hidden Deficits

In order to estimate hidden deficit as defined above, we conduct a simple exercise. We estimate a hypothetical level of debt that the government would have accumulated had there been no capital gains and losses to government's liabilities (due to inflation, depreciation of the currency etc.), and it had not incurred any expense outside the purview of the budget. So we set  $\pi=0$ ,  $\varepsilon=0$ , and  $x_t=0$ , and rewrite equation (3) as:

$$b_t^h = \left( \frac{1}{1+g} \right) b_{t-1}^h - s_t + d_t$$

where  $b_t^h$  is the hypothetical debt-GDP ratio that the government would have had, if past budget deficits and seignorage are the only two sources financing it. Noting that  $g$  is the growth rate of nominal GDP, one can express the above equation in levels, eliminate the output term for the equation, and then iterate backward to express  $b_t^h$  as sum of past deficits, change in base money overtime, and initial leave of debt, all deflated by current output, i.e.:

$$b_t^h = \frac{1}{Y_t} \left[ B_0 + \sum_{i=1}^{i=t} D_i - \sum_{i=1}^{i=t} (H_i - H_{i-1}) \right] \quad (4)$$

Using data for twenty-nine developing and developed countries for the 1980-97 period, we compare the actual debt-output ratio as reported in World Development Indicator table, with the hypothetical debt-output ratio as obtained from equation (4)<sup>1</sup>. The difference between the two ratios shows the accumulated hidden deficits of the government.

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<sup>1</sup> The number of developing countries is limited by data availability. The sample of countries are, Argentina, Australia, Austria, Brazil, Chile, Indonesia, Finland, Jordan, Korea, Malaysia, Mexico, Norway, Philippines, Spain, South Africa, Sweden, Thailand, Turkey, Uruguay, USA and Venezuela. The data is obtained from the World Development Indicator database of the World Bank, and is for the central government only. The data on base money,  $H_t$ , is obtained from the International Financial Statistics database of the IMF.

**Table 1: Accumulated Hidden Deficits in Selected Developed Countries**

<b>Country (Sample Period)</b>	<b>Actual Debt-Output at the end of the Period (1)</b>	<b>Hypothet- ical Debt- Output at the end of the Period (2)</b>	<b>Accumulated Hidden Deficits During this Period (3) = (1)-(2)</b>	<b>Contribution of budget deficit +seignorage to total debt (4) = (2)/(1), in %</b>
Australia (1979-96)	22.53	14.78	7.75	65.60
Austria (1979-95)	58.38	43.23	15.15	74.05
Finland (1979-95)	66.10	43.85	22.25	66.34
Norway (1979-96)	28.07	14.78	13.29	52.65
Spain (1979-94)	52.84	46.75	6.09	88.47
Sweden (1979-96)	70.89	72.97	-2.08	102.9
United States (1979-97)	48.93	43.30	5.63	88.49

Table 1 shows the actual and hypothetical debt-output ratio and the accumulated hidden deficits in seven developed countries, at the end of the sample period. The difference between the actual and hypothetical debt-output ratios at the end of 15 to 18 year period is found to vary between 22 percent (Finland) and -2 percent (Sweden). The difference between the two series for other countries is found to be 6 percent in Spain and USA, 8 percent in Australia, 13 percent in Norway, 15 percent in Austria. If one divides the total accumulated hidden deficits by the number of years in the sample, the average hidden deficit per year for developed countries is found to be only 0.3 percent.

In developed countries, the conventional budget deficit and seignorage are the biggest contributors to the total government debt. This is illustrated in the last column of table 1. These

two sources together contributed to more than 65 percent of all the accumulated debt in six of the seven developed countries (excluding Norway).

The story is however quite different for developing countries, whose ratios are reported in table 2. The divergence between the actual and hypothetical debt-output ratios at the end of the sample period is found to be 79 percent in Philippines, 77 percent in Brazil (at the end of 1991), 74 percent in Indonesia, 48 percent in Jordan, 34 percent in Chile, 33 percent in Malaysia, 26 percent in Korea and Thailand and so on. For three countries—Chile, Philippines, and Thailand—the hypothetical debt-output ratio is negative at the end of the sample, implying that these countries were

**Table 2: Accumulated Hidden Deficits in Selected Developing Countries**

<b>Country (Sample Period)</b>	<b>Actual Debt-Output at the end of the Period (1)</b>	<b>Hypothetical Debt-Output at the end of the Period (2)</b>	<b>Accumulated Hidden Deficits During this Period (3) = (1)-(2)</b>	<b>Contribution of budget deficit +seignorage to total debt (4) = (2)/(1), in %</b>
Argentina (1981-98)	31.41	10.80	20.58	34.48
Brazil (1981-91)	149.27	72.47	76.80	48.55
Chile (1988-98)	11.24	-23.08	34.32	-205.3
Indonesia (1979-98)	82.11	7.84	74.27	9.55
Jordan (1979-95)	90.16	42.61	47.55	47.26
Korea (1979-98)	27.83	2.10	25.73	7.55
Malaysia (1979-98)	35.33	1.61	33.72	4.56
Mexico (1979-98)	41.21	32.33	-8.98	127.9
Philippines (1979-98)	65.84	-13.62	79.46	-20.68
South Africa (1979-95)	57.42	72.93	-15.51	127.0
Thailand (1979-98)	12.55	-13.62	26.17	-108.5
Turkey (1979-98)	38.69	61.97	-23.28	160.2
Uruguay (1979-94)	26.33	10.21	16.12	38.78
Venezuela (1979-98)	31.10	38.77	-7.67	124.66

running large budget surpluses (and/or collected so much seignorage revenues) that they should not only have retired all their debt, but accumulated large foreign assets as well. But their actual debt-output ratios were positive at the end of the sample period, because they must have accumulated large hidden liabilities as well, which they had to repay.

If one divides the total accumulated hidden deficits by the number of years in the sample, the average hidden deficit per year for developing countries is found to be as much as 2.6 percent (excluding countries which had hidden surpluses). Unlike the developed countries, the conventional budget deficit and seignorage are not the biggest contributors to the total government debt in developing countries. This is illustrated in the last column of table 2. These two sources together contributed to less than 50 percent of all the accumulated debt in seven of the eleven countries (excluding countries which had hidden surpluses).

A notable difference among the developing and developed countries is that in the former group, some of the countries like Mexico, South Africa, Turkey and Venezuela have actual debt-output ratio substantially less than their implied debt output ratio during certain years of the sample period. There can be many potential reasons for this counter-intuitive observation. First, the country may have received generous debt forgiveness, used its privatization revenue to retire debt, obtained large amount of aids and grants from multilateral and bilateral donors to finance its budget or the gains in its capital accounts due to favorable change in prices (high inflation and/or large appreciation of the real exchange rate) more than offset its off-budgetary expenses.

### **Sources of Hidden Deficits**

There are a number of factors or events that could contribute to build-up of the hidden deficits in developing countries. Primary among them are: non-inclusion of corporate and bank restructuring expenses; treatment of present and expected future costs of entitlements and contingent liabilities; exclusion of capital gains and losses from the budget; use of different valuation methods; and use of grants, aids, and privatization receipts as financing items. We discuss two of these sources below.

### **Restructuring of Failed Financial Institutions and Corporations**

It has been repeatedly observed that policymakers in both developed and developing countries have been unable to credibly commit themselves to let large financial institutions and domestic firms fail during financial crises. The problem of bailing-out failed institutions is more serious in developing and transition countries—where financial crises are more frequent and more severe, and where regulatory mechanisms to minimize governmental interventions are lacking. These restructuring expenses contribute towards increasing the indebtedness of the government, but are they included in the reported budget deficit?

Studies have shown that current guidelines and practice for classifying government assisted operations for bailing-out or restructuring of banks and firms are inadequately captured in the fiscal balance. Daniel, Davis, and Wolfe (1997), show that governments that do not want to assist financial institutions directly through the government budget often use quasi-fiscal operations, and exclude non-cash operations from the budget.

In one of our previous studies, Kharas and Mishra (2000b), we find that the accounting practice for bank assisted operations in transition countries suffer from the same criticism. For example, in the Czech Republic, the debt-output ratio increased from 25 percent in 1994 to 36 percent in 1998. During the same period the conventional deficit ranged from a minimum of -0.9 percent surplus in 1994 to a maximum of 1 percent deficit in 1998. While spending on quasi-public institutions like the Konsolidacni Banka, Ceska Insasni, Ceska Financni (these were established to revitalize the banking sector) and National Property Fund led to an increase in government's total liabilities, expenses incurred on them were however almost excluded in the estimation of the budget deficit. Thus, the Czech authorities ran an average hidden deficit of approximately 4.98 percent during the 1994-98 period.

Using the Caprio and Klingebiel (1996) study, we examine in table 3, whether the fiscal cost of various banking crises have been properly reflected in the budget deficits of the respective governments. Argentina experienced a banking crisis between 1980-82, and during these three years, the

**Table 3: Fiscal Cost of Banking Crises**

<b>Country</b>	<b>Year</b>	<b>Estimated Cost of the Banking Crisis (% GDP)</b>	<b>How Much the Total Debt Increased During Period</b>	<b>Budget Deficit as Reported During this Period</b>	<b>Implied Deficit During this Period</b>
Argentina	1980-82	55.3	From US\$9 bln in 1980 to US\$25 bln in 1982	1980 : 3.11 % 1981 : 5.43 % 1982 : 4.22 %	1980 : N.A. 1981 : 14.38 % 1982 : 12.79 %
Chile	1981-83	41.2	Actual data unavailable, except that debt to GDP ratio was 118 percent in 1982.	1981 : -2.59 % 1982 : 0.98 % 1983 : 2.63 %	N.A. N.A. N.A.
Finland	1991-93	8.0	From US\$22 bln in 1991 to US\$48 bln in 1993.	1991 : 6.95 % 1992 : 14.74 % 1993 : 13.38 %	1991 : 6.05 % 1992 : 15.21 % 1993 : 8.99 %
Hungary	1991-95	10	From US\$23 bln in 1992 to US\$37 bln in 1995.	1992 : 7.29 % 1993 : 5.72 % 1994 : 7.12 % 1995 : 6.39 %	1992 : N.A. 1993 : 20.75 % 1994 : 5.09 % 1995 : 11.78 %
Malaysia	1985-88	4.7	From US\$24 bln in 1985 to US\$32 bln in 1988.	1985 : 5.68 % 1986 : 10.48 % 1987 : 7.73 % 1988 : 3.62 %	1985 : 3.15 % 1986 : 11.07 % 1987 : 14.28 % 1988 : 5.25 %
Indonesia	1994	1.8	From US\$57 bln in 1993 to US\$62 bln in 1994.	1993 : -0.61 % 1994 : -0.94 %	1993 : 3.41 % 1994 : 4.18 %

Source: Caprio and Klingebiel 1996.

reported budget deficits were 3.11, 5.43, and 4.22 percent of GDP respectively. At the same time, the total central government debt increased by three times from US\$9 billion to US\$25 billion. Using the actual debt-output ratio, we estimate the implied deficit during these years for Argentina. It is found to be 14.38 and 12.79 percent of GDP during 1981 and 1982 respectively (because of missing data, implied deficit for 1980 cannot be calculated). This indicates that, hidden deficit of nearly 9 and 8.5 percent of GDP were used during 1981–82 period to bailout the banking sector in Argentina, and these expenses were not reported in the budget deficit. The story is not too dissimilar in the rest of the five countries shown in table 3, namely, in Chile, Finland, Hungary, Malaysia, and Indonesia. In most cases, where implied deficits can be estimated, they are found to be higher than the reported budget deficits.

#### **Exchange Rate Movements and Capital Gains and Losses**

As our decomposition exercise showed, large-scale depreciation or appreciation of the nominal or real exchange rate can have significant impact on the real value of the total debt. Given that depreciation of the real exchange rate is more frequent than appreciation in most developing countries, they incur more capital losses than gains from their exchange rate movements. Especially during currency crises, which are associated with sharp and significant real depreciation, the capital losses to the government can be enormous.

Another source of capital gains and losses to the real value of the government debt can arise from cross-currency movements which were mostly excluded from budgetary accounts. According to Cassard and Folkerts-Landau (1997), in Indonesia a third of the increase in the dollar value of the external debt between 1993 and 1995 was due to cross-currency movements, primarily the appreciation of yen. In Malaysia, the sharp appreciation of yen in 1994 is reported to have increased the dollar value of the external debt by 6 percent. In Philippines, the appreciation of the yen accounted for about half of the increase in the dollar value of the external debt in 1995. The subsequent depreciation of the yen in 1996 did offset some of the losses incurred by these countries and this may be the reason why the extra-budgetary expenses suddenly declined in many of these countries in 1996.



### **Concluding Remarks**

In developed countries, the accumulation of public surpluses and deficits gives a fairly accurate picture of how public debt evolves over time. In developing countries, this has not been true. For the past twenty years, the actual growth of debt has been much greater than the accumulated sum of conventional deficits. There are a variety of measurement and methodological reasons as to why this is the case, and why developing countries are more susceptible to suffer problems of hidden deficits than developed countries.

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# 7

## GOVERNMENT AT RISK: DEALING WITH CONTINGENT LIABILITIES AND OTHER FISCAL RISKS

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### Introduction

Faced with external and domestic pressures, governments all around the world have been lowering their fiscal deficits. At the same time, economists are increasingly coming to realize that focusing exclusively on traditional measurements of the fiscal deficit to assess government fiscal performance can be misleading for two reasons. First, as Selowsky (1998) points out, traditional deficit measures do not shed sufficient light on two key dimensions of “quality” of fiscal adjustment: sustainability and efficiency<sup>1</sup>. Second, as Easterly (1999) argues, fiscal adjustment can be just an “illusion” when it lowers the budget deficit but leaves government net worth unchanged.<sup>2</sup> This paper analyzes the use of contingent liabilities to alleviate the budget.

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<sup>1</sup> Efficiency is a broad concept that includes issues such as: (a) where should the government spend resources, (b) what should be the nature of its intervention, and (c) how should it obtain fiscal revenues in the least distortionary manner.

<sup>2</sup> When an outside agent forces a reduction in a government’s conventional deficit, it often responds by lowering asset accumulation or by increasing hidden or off-budget liabilities giving the “illusion” of a fiscal adjustment. Fiscal adjustment of this nature may not be either sustainable or efficient. For other examples and explanations why

Accumulation of explicit or implicit government contingent liabilities is a way to reduce the measured fiscal deficit while avoiding difficult adjustment. There are many examples of this type of government behavior. In Italy, the railways have raised funds through the financial markets to cover their deficits for many years with government agreement and an explicit guarantee from the treasury. Yet, those operations had no impact on the measured fiscal deficit or on the measured stock of government liabilities (Glatzel 1998). Similarly, faced with the Gramm-Rudman constraint on fiscal deficits, the US Congress has reduced direct lending by \$50 billion and increased loan guarantees by \$178 billion, replacing budgetary outlays by explicit contingent liabilities (Rubin 1997). Implicit liabilities often arise from the financial sector. The savings and loan crisis in the US, which eventually cost the government about \$200 billion, is a notable example (Kotlikoff 1993). In most countries, governments have used financial institutions to “hide” their fiscal deficits often by asking them to extend subsidized loans to public entities.<sup>3</sup>

Several factors are working to increase government contingent liabilities and fiscal risk in countries around the world. These include rapidly increasing volumes and volatility of private capital flows;<sup>4</sup> transformation of the state from financing of services to guaranteeing particular

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change in net worth is the right conceptual measure of the deficit see Buiter (1983, 1985) or Blejer and Cheasty (1991).

<sup>3</sup> Easterly (1999) presents several examples of this.

<sup>4</sup> The relationship between financial flows and fiscal deficits work in two ways: large capital outflows can increase implicit contingent liabilities, large capital inflows in poorly regulated financial sectors set the stage for the accumulation of implicit contingent liabilities and even without outflows increase fiscal risk. Moreover, outflows may be prompted by the accumulation of contingent liabilities.

outcomes; and related to both of these, moral hazards in the markets and fiscal opportunism of policymakers. Transition and emerging-market economies face particularly large fiscal risks. Their dependence on private foreign financing, weak regulatory and legal enforcement systems, distorted incentive structures, opaque ownership structures, and low information disclosure, elevate failures in the financial and corporate sectors. Such failures, in turn, often generate political pressures on governments to intervene through bailouts.

Although it is impossible for governments in a market environment to avoid all fiscal risk, they can control and reduce the risks, but only if they recognize and fully consider them in their policy debates. Whether governments have the incentives and capacities to reflect fiscal risks in their policy choices and to carry out appropriate fiscal adjustment is an important question. The incentives will reflect how well policymakers understand the issues and the pressures they face in dealing with them. The fiscal risks become apparent only when the institutions conducting fiscal analyses look beyond the government's budget and debt to include the contingent and implicit liabilities. The extent of the incentives governments have to make direct and contingent fiscal risks transparent is linked mainly to the definition and measurement of internationally recognized fiscal indicators, to the quality of public awareness, external monitoring, and to the sanctions imposed for concealing relevant data and exposing the state to excessive fiscal risk.

A first step towards controlling the expansion of government contingent liabilities and reducing fiscal risk is being able to identify and measure them. This chapter classifies and analyzes the potential obligations and fiscal risks governments face and their sources. It next outlines the options for reducing fiscal risks in the context of fiscal adjustment, with particular attention to the typology and

analysis of specific fiscal risks, the high risk exposure of governments of transition and emerging-market economies, and the quality and bias in government decision making at the time of fiscal adjustment. Several questions are addressed. How can policymakers be made accountable for recognizing the long-term cost of all forms of government activities? How can the moral hazard induced by government interventions be reduced? What standards for public sector accounting, budgeting, reporting, and risk management would foster sound fiscal performance in the long term? Finally, on the case of the Czech Republic, the chapter demonstrates how assessment of fiscal adjustment may change substantially when a broader picture of government obligations is included. The Czech case provides an example of balanced government budgets and of the deliberate use of guarantees and other forms of off-budget support. The case study shows how to deal with some difficult conceptual and measurement issues when trying to estimate government contingent liabilities and an unreported portion of fiscal deficit.<sup>5</sup>

### **The Fiscal Risk Matrix**

Governments face four types of fiscal risk, each of which is a broadly defined obligation that combines two of the following four characteristics: explicit versus implicit and direct versus contingent.<sup>6</sup>

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<sup>5</sup> For a more detailed treatment of contingent liabilities and fiscal risks see Brixi et al. (2001).

<sup>6</sup> The international accounting standards for governments proposed by the International Federation of Accountants define a liability as a present obligation of the government that entails a form of economic benefits and that arises from past events whose settlement is expected to result in an outflow of government resources (International Federation of Accountants 1998).

- Explicit liabilities are specific obligations of the government established by a particular law or contract. The government is legally mandated to settle the obligation when it comes due. Common examples are the repayment of sovereign debt and repayment of non-performing loans the state has guaranteed.
- Implicit liabilities involve a moral obligation or expected responsibility of the government that is not established by law or contract but instead is based on public expectations, political pressures, and the overall role of the state as society understands it. Examples of implicit liabilities are future public pension benefits that are not specified by law, disaster relief for uninsured victims, and default of a large bank on non-guaranteed obligations.
- Direct liabilities are obligations that will arise in any event and are therefore certain. They are predictable based on some specific underlying factors; they do not depend (are not contingent) on any discrete event. For example, future public pensions specified by law are a direct liability whose size reflects the expected amount of the benefit, eligibility factors, and future demographic and economic developments.
- Contingent liabilities are obligations triggered by a discrete event that may or may not occur.<sup>7</sup> The probability of the contingency occurring and the magnitude of government outlay required to settle the ensuing obligation are difficult to forecast. Probability and magnitude depend on some exogenous conditions, such as the occurrence of a particular event (for example, a natural disaster or banking crisis) and some endogenous conditions, such as the design of government programs (an example being the contracts for

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<sup>7</sup> International accounting standards define a contingency as a condition or situation whose ultimate outcome is determined only by the occurrence, or nonoccurrence, of one or more future events (International Accounting Standards Committee 1997).



state guarantees and insurance), as well as on the quality and enforcement of regulations and supervision. The fiscal risk matrix in table 1 provides a typology of the sources of the potential financial requirements central governments face. Under each category are examples of government programs and promises that can create fiscal pressures. Some of the examples apply across all countries (such as sovereign debt), whereas others are more country-specific (such as crop insurance).

### **Direct Explicit Liabilities**

In most countries, the central government commonly recognizes, quantifies, and discloses direct explicit liabilities. Even so, estimating the size of the government outlays related to these obligations in the medium term is not a simple task.

- Governments usually specify *obligations to settle direct foreign and domestic sovereign debt* in their loan contracts and securities. The future financing requirements mainly relate to the maturity, currencies, and interest rate of the debt instruments. Using these specifications, governments forecast their debt service profile, simulate the tradeoff between risk exposure and the cost of borrowing, and build debt service scenarios for alternative portfolio and macroeconomic developments. Denmark, Ireland, and the United Kingdom provide excellent examples of how to analyze and disclose sovereign borrowing risks.
- *Budgetary outlays* are normally embedded in an annual budget law, which contains the approved activities and policies of the government. In principle, the budget is legally binding, and outlays are to comply with the budgeted figures throughout the fiscal year. In practice, the budget is viable only if it is based on good macroeconomic analysis and if the government

employs institutional mechanisms for fiscal discipline and control.

**Table 1: The Fiscal Risk Matrix**

<b>Obligations</b>	<b>Direct</b> ( <i>obligation in any event</i> )	<b>Contingent</b> ( <i>obligation if a particular event occurs</i> )
<p><b>Explicit</b></p> <p>Government liability is recognized by law or contract</p>	<ul style="list-style-type: none"> <li>• Foreign and domestic sovereign borrowing (loans contracted and securities issued by the central government)</li> <li>• Expenditures by budget law</li> <li>• Budget expenditures legally binding in the long term (civil service salaries, civil service pensions)</li> </ul>	<ul style="list-style-type: none"> <li>• State guarantees for nonsovereign borrowing and obligations issued to subnational governments and public and private sector entities (development banks)</li> <li>• Umbrella state guarantees for various types of loans (for mortgages, students studying agriculture, and small businesses)</li> <li>• State guarantees (for trade and the exchange rate, borrowing by a foreign sovereign state, private investments)</li> <li>• State insurance schemes (for deposits, minimum returns from private pension funds, crops, floods, war risk)</li> </ul>
<p><b>Implicit</b></p> <p>A “moral” obligation of the government that mainly reflects public expectations and pressures by interest groups</p>	<ul style="list-style-type: none"> <li>• Future recurrent costs of public investment projects</li> <li>• Future public pensions (as opposed to civil service pensions) if not required by law</li> <li>• Social security schemes if not required by law</li> <li>• Future health care financing if not specified by law</li> </ul>	<ul style="list-style-type: none"> <li>• Failure in the banking sector (beyond state insurance)</li> <li>• Default of a subnational government and public or private entity on nonguaranteed debt and other liabilities</li> <li>• Cleanup of the liabilities of privatized entities</li> <li>• Investment failure of a nonguaranteed pension fund, employment fund, or social security fund (social protection of small investors)</li> <li>• Default of the central bank on its obligations (foreign exchange contracts, currency defense, balance of payments stability)</li> <li>• Bailouts following a reversal in private capital flows</li> <li>• Residual environmental damage, disaster relief, military financing, and the like</li> </ul>

<sup>a</sup>Of fiscal authorities, not the central bank.

- Governments in many countries extend *legal entitlements to a salary and pension* at a specified retirement age to public employees. It is certain these legal entitlements will be a spending item in future state budgets. Their magnitude is based on forecasts of the numbers of public employees and their expected remuneration, pension benefit, and retirement age. Under New Zealand's Fiscal Responsibility Act, the government is required to analyze and disclose such forecasts in budget documents. (Where a government plans to downsize the civil service, it may be obligated to pay redundancy packages, whose overall cost would be contingent on the actual downsizing.)

In contrast to the environment depicted in the fiscal risk matrix (table 1), countries with legal provisions that the government finance future social security benefits, such as public pensions, universal health care, and education, list these as direct explicit rather than implicit items.

### **Direct Implicit Liabilities**

Direct implicit government liabilities often arise as presumed, rather than as legal or contractual, obligations established by public expenditure policies in the medium term. Only governments that are committed to transparent medium-term expenditure planning and long-term fiscal discipline recognize and quantify these obligations. Assuming no policy changes, the implicit cost of demographically driven public expenditures is what in particular poses a danger to fiscal stability in the long term.

- *The completion of public investment projects and maintenance* are only expected, not mandated, by law. Governments analyze and quantify, and are accountable for, the ex-ante estimates and actual multiyear investment and ensuing long-term recurrent

costs. Countries such as Australia and South Africa use a medium-term expenditure framework that automatically includes the financing requirements for operations and maintenance in the fiscal outlook and future budgets. Thus, government obligations to sustain the benefits of public investments are explicit.

- In many countries, *future public pension benefits* are not grounded in any legal document and therefore are not explicit but rather are implicit government liabilities. Assuming that a given pension policy will continue, it is certain that the overall obligation of the government will occur (there are economic, social, and political reasons for assuming that a government would not stop paying the benefits unless it first reformed its pension system). Hence future public pension benefits are a direct liability, even though not in the strict accounting sense. Since the provision of public pensions is recognized as the most striking problem for fiscal sustainability in aging societies, many governments have been analyzing the long-term fiscal implications of their pension policies and of alternative reforms using long-term fiscal and pension models. (A point discussed below is that pension reforms often encourage private sector involvement in saving for retirement because the government provides indirect forms of support, such as guarantees of minimum pension benefits. These guarantees are an explicit contingent liability of the government.)
- Similarly, *future health care and social security* financing can be analyzed as a direct implicit government liability (even if not accounted as such). Research shows that the dynamics of the financing requirement for health care in an aging society is often even more explosive than that for public pensions.

Modeling and recognition of the long-term fiscal implications of health care policies and their reforms are critically important for fiscal stability and equity in the long term.

### **Contingent Explicit Liabilities**

Contingent explicit liabilities are a legal obligation of the government to make a payment if a particular event occurs; they are not directly associated with any existing budgetary program. A government's commitment to accept obligations contingent on future events amounts to a hidden subsidy and may cause immediate distortions in the markets and result in a major unexpected drain on government finances in the future.

Although governments recognize each contingent explicit liability in some formal documentation, many have yet to consolidate all these obligations and their total magnitude in one place and to include them in their overall fiscal analysis and expenditure planning. In contrast, many corporations, commercial banks, and insurance companies have made considerable progress in dealing with contingent liabilities in the past 10 years. Similarly, governments have not yet recognized the importance of good design, monitoring, and management of their programs to control fiscal risks. At the policy level, ex-ante analysis of the risks and future financial implications associated with the contingent forms of government support contribute to better policy choices on equity and long-term fiscal stability.

- Governments often issue guarantees to cover part or all of the risk that a borrower will fail to repay a loan or other guaranteed asset or that an institution will fail to fulfill its obligations. Common examples include state guarantees of debt and other obligations of subnational governments and various public and private entities,

such as budgetary institutions, credit and guarantee funds, development banks, and enterprises. Guarantees and credit issued through a state-guaranteed intermediary are particularly risky because they allow the government to pursue unannounced policy decisions, involve a problem of management incentives, and are difficult for governments to monitor and control. The hidden subsidy to the beneficiary of a guarantee, and the subsequent potential cost to the government, are positively correlated with the risk, size, and duration of the underlying asset. In addition, the probability of a default may be very high if the guarantee contract does not specify risk-sharing by both the government and the other parties in terms of both the financial coverage (part versus all of the loan) and risk coverage (specific political or commercial, versus all risks). Government guarantees routinely cover all risks fully. Such guarantees distort the markets and are called with high probability. The risk a government assumes can be estimated based on the experience of governments of different capacities, simple rules, and, where appropriate, more sophisticated methodologies such as actuarial, econometric, loss estimate, and option pricing models.<sup>8</sup> Assessment of risks allows governments to reflect the potential fiscal cost associated with guarantees in their choices of policies and forms of support and in the design of a guarantee contract. Since passage of the Credit Reform Act, the United States provides good examples of government analysis and the design of credit guarantees.

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<sup>8</sup> For a detailed discussion of the valuation methodologies for loan guarantees and other contingent liabilities, see Mody and Patro (1996) and Mody and Lewis (1997).

- Governments extend umbrella guarantees to eligible persons or entities borrowing for a specific purpose, such as university studies, a mortgage, farming, and small business development. The rationale for these guarantees and the assessment of their risks and potential long-term cost are similar to those for the individual guarantees discussed above (and are also true for trade and exchange rate guarantees and guarantees on foreign sovereign borrowing and private investments).
- State insurance schemes often constitute a major risk to future fiscal balances. Common state insurance programs cover bank deposits, crops, war risks, minimum returns from pension funds, and floods, earthquakes, and other natural disasters. Although most of these programs cover losses that occur very infrequently, when the losses do occur, their total magnitude may be enormous. The risk pool under these programs, particularly in small markets, is very limited, one justification for government's involvement. State insurance schemes rely on net government financing from general taxes, rather than on insurance fees, and thus redistribute wealth. The analysis of risks and potential fiscal burdens associated with state insurance schemes requires sector data and sophisticated models (such as the hydrologic model used to estimate the probabilities of floods in a given year), and loss estimation methodologies and options pricing models to assess the riskiness of the returns of a pension fund. A qualitative analysis of the risk factors is, however, sufficient for the government both to design a sound insurance scheme that would not seriously distort market behaviors and to make a rough estimate of its potential fiscal cost. The United States may take



the lead in this area as its government adopts the analytical and budgeting method for federal insurance programs proposed by the General Accounting Office (United States, General Accounting Office 1997).

### **Contingent Implicit Liabilities**

Contingent implicit liabilities are not officially recognized and may be the product of declared policy objectives. Governments accept these liabilities only *after* a failure in the public sector or market and as a result of pressure by the public, possibly interest groups, or just too high an opportunity cost for not acting.

Contingent implicit liabilities often pose the greatest fiscal risk to governments. The event triggering the liability is uncertain, the value at risk difficult to evaluate, and the extent of government involvement difficult to predict. In short, it is very hard to identify and estimate the size of contingent implicit liabilities. They are particularly large if the macroeconomic framework in the country is weak, the financial sector vulnerable, regulatory and supervisory systems inefficient, and disclosure of information in the markets limited.

In addition, expectations of government involvement generate moral hazard in the markets. The scope for moral hazard is particularly large in economies in which the government significantly minimizes the pain of past failures of market agents and in which the government and investors do not have a good capacity to monitor the risk exposure of market agents. Governments can constrain moral hazard if, in advance and through their actions, they decide on and signal the limits of their potential intervention to the markets. To reduce rather than expand the moral hazard, the signals have to make clear that the government will be responsible for minimum public goods only and that there will be significant

pain for agents that fail. The government needs to assess the costs and benefits and reveal its responsibility for each contingent implicit liability separately.

- In most countries, *the financial system* is government's most serious contingent implicit liability. International experience indicates that the markets expect the government to help financially if the stability of the financial system is at risk. In case of a failure in the financial sector, governments are compelled to intervene financially far beyond their legal obligation either to secure some critical functions of the financial system or to protect depositors and specific market agents beyond the limits of state insurance schemes.<sup>9</sup> Such practice further exacerbates the moral hazard problem in the financial and corporate sectors.
- Uncovered losses and defaults on nonguaranteed debt and obligations by a *subnational government, state-owned or large private enterprise, budgetary or extra budgetary agency*, or any other institution of political significance may induce the government to provide financing. Governments also accept various obligations of parastatal and public entities subject to privatization. (The government is often liable for the obligations, including contingent explicit ones, of state-owned financial institutions.) The contingent

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<sup>9</sup> Standard & Poor's estimated the contingent fiscal cost of the domestic banking system in 1997 (the level of direct and indirect costs to the government under the worst-case scenario) in Argentina, Hungary, Italy, Poland, and Sweden to be less than 10 percent of gross domestic product (GDP); in Greece, Philippines, Singapore, Slovak Republic, United Kingdom, and United States to be about 10 to 20 percent; and in China, Czech Republic, Hong Kong (China), Japan, Republic of Korea, Malaysia, Thailand, and Taiwan (China) to be over 30 percent (Standard & Poor's 1997).

implicit government liability associated with both the financial system and nonguaranteed corporate debt increases with rising amounts and less efficient allocation of private capital.

- Depending on social preferences, some critical *social and welfare functions*, even when the government has contracted them out, are believed to be the ultimate responsibility of government. For example, where there is an investment failure of a nonguaranteed pension, employment, or social security fund, the government has to finance the social services from the budget. Thus, nonguaranteed private provision of social and welfare services poses a contingent implicit financial risk for governments (Heller 1997).
- The fiscal authorities also have ultimate responsibility for *currency stability* and *the balance of payments*, and therefore also for unmet obligations of the central bank. Most recently, Thailand and other Asian countries have shown that fiscal obligations may arise from a fixed exchange rate regime or the foreign exchange contracts of the central bank and, ultimately, are connected to international bailout packages. As in most of the instances listed above, the risk escalates with the macroeconomic vulnerability and moral hazard in the markets.
- *Private capital flows* entail contingent implicit risks to the government in four areas: (a) policy (the risks include exchange rate overvaluation and sterilization), (b) domestic assets valuation (an asset bubble for real estate, productive and intangible assets, financial instruments, and domestic currency), (c) intermediation (interest rate differential and weakness of the domestic financial system), and (d) borrowing

(incentives for corporations, banks, and governments to over borrow and borrow short-term).

- Ultimately, *environmental damage* and *natural disasters* create a high demand for public monies, beyond explicit state insurance programs and guarantees. Many countries face the financial risk of operating and dismantling nuclear plants, disposing of nuclear and toxic wastes, and the residual cost of environmental recovery. In the absence of developed private insurance industries, particularly in countries with a history of care taking, disasters such as floods, earthquakes, and droughts create major political pressures for government action.

### **The Increasing Problem of Fiscal Risks**

#### **Trend, Bias, and Moral Hazard**

As noted, recent trends show that governments are exposed to expanding fiscal risks. First, the high volumes and volatility of private capital flows and increasing economic dependence of countries on foreign capital have exacerbated the vulnerability of their domestic financial and corporate sectors and, implicitly, of the government. Particularly in transition and emerging market economies, domestic assets are subject to the rapidly changing preferences of foreign investors. An interplay of risks—policy (high exchange and interest rates), valuation of domestic assets (asset bubble), intermediation (interest rate differential and weak domestic financial system), and borrowing (over borrowing and short-term borrowing by government and market institutions)—may lead to a sudden dumping of domestic equity, bonds, and currency by investors. Such instances, which occurred recently in Mexico, Asia, and Russia, cause a crisis that is solved partly at taxpayers' expense.

Second, the states have been transforming their role, moving from directly providing and financing services to guaranteeing that the private sector will accomplish certain outcomes. Privatization of state responsibilities and attempts to encourage private sector initiative through explicit or implicit government guarantees have left governments with increasing uncertainty about future public financing requirements. Will a guarantee be called? What will the outlays of state insurance programs be? Will reserve funds be sufficient to cover the contingent losses? Several governments have incurred expenditures above envisaged limits following a massive failure of projects covered by state guarantees, busted deposit insurance schemes, banking crises, and excessive private credit. In such instances, many transition and emerging-market countries have faced capital flight and plunged into fiscal crisis, whereas developed countries such as France absorbed the fiscal shock by issuing more public debt.

Third, governments may be biased toward off-budget policies, which pose more financial risk but require less immediate financing. Often, particularly in times of deficit reduction and a short-term political horizon, policymakers exploit the fact that off-budget commitments and obligations are not necessarily reported so that the cost of government policies is hidden. Under these conditions, decision makers favor off-budget forms of government support such as state guarantees, direct credit, and absorption of private liabilities and bad assets. There are many examples of fiscal opportunism, for example, in countries in the European Monetary Union's (EMU) subject to the fiscal ceilings of Maastricht as well as World Bank and International Monetary

Fund (IMF) adjustment programs.<sup>10</sup> Such forms of government support give rise to government contingent fiscal risks whose costs and cash consequences perhaps will not be seen for many years.

Finally, explicit state guarantees and insurance schemes, or any implicit understanding that a government will come to the rescue in the case of various market failures, generate serious moral hazard problems in the markets. Loans and investments with a full guarantee suffer from insufficient analysis and supervision by creditors. Beneficiaries of poorly designed state insurance schemes tend to expose themselves to excessive risks. For instance, in the United States, the generous benefits of the federal flood insurance program have resulted in excessive construction of houses in flood-prone areas (United States, General Accounting Office 1997). Given this market behavior, it is more likely the government will be called on to provide financial support later on.

### **Fiscal Risks and the Challenge of Transition and Emerging Markets**

The implicit and explicit fiscal risks that both governments in transition and in emerging-market economies face are particularly large. Dependence on foreign financing, vague ownership structures in the economy, underdeveloped regulatory frameworks, and weak enforcement exacerbate the

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<sup>10</sup> The 1992 Treaty of Maastricht sets the following fiscal limits: general government deficit as a net borrowing requirement, 3 percent of GDP and total gross debt at nominal value outstanding at the end of the year and consolidated within general government, 60 percent of GDP. Both deficit and debt are calculated according to the European System of National Accounts ESA78. ESA78 only roughly defines the general government and does not require the recording of government transactions on an accrual basis and of assets at market value. For a description of the opportunistic fiscal behaviors of governments under fiscal constraints see Easterly (1999) and Forte (1997).

scope for failure in the financial and corporate sectors. Failures in turn often generate political pressures on governments to intervene, ad hoc and ex post, through various financial bailouts. The recent history of repeated bailouts, coupled with the lengthy tradition of a central plan, has produced enormous moral hazard in the markets. The Hungarian and Czech Republic governments were willing to repeat their bailouts and recapitalize banks while accumulating public liabilities. The public liabilities that the Czech Republic amassed outside the budgetary system outweighed its low sovereign debt levels.

The weak disciplinary effects of the international financial markets exacerbate the fiscal risks that governments in transition and emerging-market economies face. Markets that are small in size and have a short history and limited disclosure of information limit the understanding that investors have of the risks. This factor in part explains why in many emerging-market economies creditors have tolerated excessive risk exposure by domestic financial institutions and enterprises before fleeing. As economies integrate with the international markets, more reliable data become available for statistical analysis, a shift that enhances the ability of both governments and investors to estimate risks with standard methodologies. These countries also have insufficient capacity to manage risk, a capacity that is expensive to build (for instance, it is costly for governments to replace low-paid bureaucrats with financial analysts).

### **Hidden Fiscal Risks and the Value of Transparency and Certainty**

Government commitments and promises outside the budgetary system blur the analysis of past fiscal performance and future fiscal developments. Contingent fiscal risks surface only after a delay and in the form of unexpected requirements for public financing. Usually governments lack

information on particular fiscal risks and overall risk exposure. Often they are not held accountable for the outcomes and cost of their off-budget commitments. As a result, contingent fiscal risks may accumulate and require substantial government financing in the future. In only a few countries are the governments required to assess and compare the full cost of alternative budgetary and off-budget programs and to report all contingent liabilities and other fiscal risks. The United States and Italy provide some good examples of risk assessment of state guarantees, and New Zealand and Australia do the same for the reporting of contingent fiscal risks.

In making policy decisions, governments often face a tradeoff between directly providing and financing services or guaranteeing their provision by the private sector. The former requires higher budget outlays in the short term. Provision by the private sector, with the state guaranteeing certain outcomes, means minimal budget outlays in the short term but exposure to higher fiscal risks and uncertainty about future public financing requirements in the longer term. If a government is trying to reduce the deficit and achieve certain short-term results, provision by the private sector looks attractive. Once a contingent liability falls due and requires government financing, however, the government has limited choices: it can increase the deficit, incur additional public liabilities without reporting any increases in the deficit, cut some envisaged expenditures, levy more taxes, sell state assets, default on some obligations, or engage in some combination of these activities. Each of these actions challenges government performance and credibility, with an attendant reduction in the effectiveness of future policies, compromises political stability, and impairs future performance and growth in the overall economy.



In this respect, the positive value of certainty (the cost of uncertainty) about future public financing requirements is an important factor for government decision-making. Alternative forms of government support can be prioritized, not only based on their contribution to the desired policy objectives and long-term cost, but also to reflect the volatility of the financing requirement and contribution to the government's overall risk exposure.<sup>11</sup>

Certainty in public financing is particularly valuable to governments that have restricted or unreliable access to borrowing, low risk management capacities, low risk preferences, and strategic cash and debt management. Contingent liabilities are potentially very harmful for governments that cannot rely on continued favorable access to borrowing. Large reserve funds may reduce the potential harm from contingent liabilities when they fall due, but those funds come with an opportunity cost. Governments with low capacity to analyze and manage risks, and in economies where outcomes are less predictable and the asymmetry in information is greater, are ill-prepared to cope with the

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<sup>11</sup> In a multipillar pension system, the adequacy of government guarantees for returns from private pension funds depends on the analysis and assessment of the risks of guarantees and on the government's capacity to regulate and supervise private pension funds and to cope with the problem of asymmetric information without incurring high transaction costs. Where the government provides pension benefits directly, it can predict total government outlays, and it seeks mainly to balance the size of the benefits, retirement age, and contributions to make the pension provision fiscally sustainable. In the guaranteed portion of the pension system, citizens save for their retirement privately. However, the government faces a high level of uncertainty about the amounts and timing of public financing that would be required should the pension guarantees fall due.

potential moral hazard and financial uncertainties.<sup>12</sup> Ideally government risk preference reflects the risk preference of the median voter. A risk-averse government chooses direct provision, whose expected financing requirement is less volatile, over a guarantee, even if both involve equal risk-adjusted net present fiscal costs and both would deliver equal policy outcomes. Finally, for governments with sophisticated and efficiently managed borrowing and financing strategies, an ad hoc financing requirement involves costly disruptions and efficiency losses.

### **Fiscal Opportunism Under Debt and Deficit Ceilings**

As yet there are no internationally accepted criteria for fiscal performance to address contingent government outlays and encourage truly sound fiscal performance by governments and their fiscal stability in the long term. Meanwhile, the tradeoff between long-term fiscal stability and the target level for the budget deficit and debt, and between the quality of fiscal adjustment and the speed of deficit reduction, may surface through fiscal opportunism (a bias toward excessive accumulation of contingent fiscal risks) and nonsustainable policies.

Opportunistic behaviors by countries under IMF and World Bank programs and, more recently, by countries bidding for European Monetary Union membership indicate that a narrow focus on budget deficit and debt compels governments to delay structural reforms and investments, conceal the cost and financing of programs outside their budgets, and raise temporary revenues. Such behaviors generate uncertainties

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<sup>12</sup> Consistent with the conclusion in the *1997 World Development Report*, that governments should adjust the extent of their interventions to the level of their institutional capacities, this paper argues that governments should adjust their overall risk exposure to the level of their risk management capacities.

about future public financing requirements and may endanger future fiscal stability. A focus on a cash-based budget, deficits, and debt also distorts government decisions about spending priorities and the timing and form of government support.

Governments may employ a number of opportunistic budgetary and accounting behaviors to meet their deficit and debt targets (table 2). The behaviors involve any or all of three types of imprudent actions: assumption of excessive liabilities for cash payment, a running down of public assets, and excessive use of off-budget support in public policies. Governments doing their accounting on a cash basis have wide scope to apply the first two actions. In cash-based accounting, expenses and liabilities are accounted not when the obligation is incurred, but only when the government makes the actual cash transfer. Thus governments collecting a fee for assuming a liability (for example, when it issues a guarantee or accepts the pension liability of an enterprise under privatization) report the income as a net revenue gain. The third action occurs under both cash- and accrual-based accounting standards but is eschewed in well-designed accrual budgeting rules.

**Table 2: Opportunistic Government Behaviors to Meet the Maastricht Deficit and Debt Ceilings**

<b>Behaviors</b>	<b>On the Revenue Side</b>	<b>On the Expenditure Side</b>
That increase future payables and liabilities of the government	<p><u>To meet the deficit rule:</u></p> <ul style="list-style-type: none"> <li>• Introduce an ad hoc tax to be reimbursed in the future</li> <li>• Accept cash for a promise of future benefits</li> <li>• Record revenues gross rather than net of the reimbursements, which are due later</li> <li>• Exchange some existing public debt instruments for indexed bonds sold at a premium</li> </ul> <p><u>To meet the debt rule:</u></p> <ul style="list-style-type: none"> <li>• Transform indebted government agencies into autonomous legal entities outside the general government while granting them a state guarantee</li> <li>• Enter repurchase contracts with public debt</li> </ul>	<p><u>To meet the deficit rule:</u></p> <ul style="list-style-type: none"> <li>• Postpone inescapable expenditures, such as infrastructure investment and maintenance</li> <li>• Favor off-budget forms of government support versus direct financing</li> <li>• Delay legal recognition and financing of government purchases and transfers</li> <li>• Postpone legal recognition and quantification of rebates due taxpayers</li> <li>• Record subsidies as purchases of (bad) assets from corporations and banks at face value</li> <li>• Record the deficits of state-owned and municipal agencies providing nonmarket public services outside general government figures</li> </ul> <p><u>To meet the debt rule:</u></p> <ul style="list-style-type: none"> <li>• Omit the existing net liabilities of public enterprises and agencies that are outside the sphere of general government but that benefit from government guarantees</li> <li>• Favor trade credit as a form of support</li> </ul>
That reduce	<u>To meet the deficit rule:</u>	

- |                       |   |
|-----------------------|---|
| future<br>receivables | <ul style="list-style-type: none"> <li>• Withhold revenues due in the following fiscal year</li> <li>• Accept cash in exchange for future tax exemptions</li> </ul> |
|-----------------------|---|

**Continued**

**Behaviors**

***On the Revenue Side***

***On the Expenditure Side***

That dilute  
the value of  
state assets

To meet the deficit rule

To meet the deficit rule

- Record the capital gains from a sale of property, possibly with a subsequent renting or lease-back arrangement
- Charge a dividend from revaluation of the gold reserves of the central bank
- Charge a higher dividend from public holdings

- Cut operations and maintenance expenditures
- Reduce expenditures on complementary inputs into the service provided by the asset

To meet the debt rule:

- Sell gold of the central bank
- Sell state assets

An accrual-based accounting system without accrual budgeting is neither necessary nor sufficient to ensure that governments adequately consider contingent fiscal risks in policy. Although this system encourages governments to prepare a statement of contingent liabilities and financial risks, it generally does not require that the liabilities be included in the balance sheet and that the associated risks be evaluated and quantified. International accrual accounting standards require that liabilities be accounted only when the obligation is due with certainty.<sup>13</sup>

Policymakers are encouraged to make choices consistent with the risk-adjusted net present costs of alternative policies and forms of government support in an accrual-based budgeting system that is built on an accrual-based accounting platform. Accrual-based budgeting requires that the net present fiscal cost associated with various government programs and contingent liabilities be included in budget documents. This way, contingent liabilities enter the fiscal analyses and public accountability frameworks from the moment government recognizes them.<sup>14</sup>

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<sup>13</sup> For a discussion of the rules of probability and risk assessment see International Federation of Accountants (1999).

<sup>14</sup> Accrual-based accounting in the public sector is the trend in countries in the Organisation for Economic Co-operation and Development. The International Federation of Accountants has proposed and elaborated accrual accounting standards for the public sector, and the proposed update of the IMF's Government Financial Statistics methodology implies accrual-based accounting. New Zealand and Iceland both have implemented accrual-based budgeting, and the United Kingdom, Sweden, the Netherlands, Canada and Australia are doing so.

### **Understanding, Incentives, and Capacities to Reduce and Control Fiscal Risks**

Contingent fiscal risks may significantly affect the results of a country's fiscal analysis. They may also be an important factor in assessing allocative efficiency in the use of public monies (the implicit subsidies and risk exposures relative to policy priorities). Finally, contingent and implicit forms of government support may not only be risky, but may also lessen the government's operational efficiency because they are unnecessarily costly compared to a direct, budgetary provision.

A first necessary condition for fiscally prudent policies is for policymakers to identify, classify, and understand the fiscal risks facing the government. Comprehension of the fiscal risks and their consequences will at least encourage the government to avoid risks that are bound to surface in a politically meaningful time horizon. For risks that extend beyond that timeframe, achievement of fiscally sound behavior may depend on coercion. In particular, policymakers are more likely to gravitate to fiscally sound decisions if the media, the public, investors, credit-rating agencies, and multilateral institutions understand the government's fiscal performance in its entirety and if there are sanctions when the government exposes the state to excessive risks and conceals those risks.

Coercion as a means to discipline a government's fiscal behavior beyond the budget deficit and debt can be applied internally and externally. Internally, the principal audit institution can assess the direct and contingent fiscal risks of each government agency and of government as a whole and make the information public. Although voters do not necessarily care about government fiscal risk, public explanation of the fiscal risks by an independent State Audit Office would also empower the external forces of coercion. To

be effective, external coercion should be used to ensure that the government applies the international rules for fiscal analysis not only to the budget and debt, but also to its contingent liabilities, and that it overcome the problem of asymmetric information. Specifically, external coercion would pressure the government to meet certain quality standards: the government must define, measure, and monitor fiscal performance in full, using sound indicators and methods as defined by international authorities such as the IMF, World Bank, European Commission, or sovereign credit rating agencies and investors, and it must develop adequate public finance institutions and disclose relevant information. Governments attempting to conceal data would be subject to sanctions.

The following sections discuss measures that a government can take to reduce its risk exposure and improve the quality of its fiscal performance. These measures apply at the policy and institutional levels, both systemically and at the various stages of government decision making.<sup>15</sup>

### **Systemic Measures to Reduce Fiscal Risks**

The main aim of systemic measures (table 3) to encourage sound fiscal behavior is to improve the understanding of policymakers, the public, and the markets of the fiscal risks.

**Table 3: Systemic Measures to Reduce Fiscal Risks**

<b><i>Fiscal Policy</i></b>	<b><i>Public Finance Institutions</i></b>
<ul style="list-style-type: none"> <li>• Consider full fiscal performance beyond the budget and debt</li> </ul>	<ul style="list-style-type: none"> <li>• Internalize and disclose the full fiscal picture</li> </ul>
<ul style="list-style-type: none"> <li>• Identify, classify, and analyze all fiscal risks in a single portfolio</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor, regulate, and disclose the risks in the public and private sectors</li> </ul>

<sup>15</sup> For policies and fiscal institutions to reduce public risks see Schick (1998) and Irwin (1997).



- Determine the government's optimal risk exposure and reserve policy according to its risk preference and risk management capacity
- Undertake measures to reduce the fiscal risk of individual government programs and promises

### **Policy**

To achieve sound fiscal performance, the government needs to include in its fiscal analysis and decision making the fiscal risks relating to future possible obligations of the state and to consider those fiscal risks in the context of its risk preference, risk financing, and risk management capacities. The following steps are critical.

- Consider fiscal performance in full, that is, beyond the budget and debt. Fiscal analysis, especially of the quality of fiscal adjustment, is complete only if it factors in the cost of the implicit subsidies in the government's contingent support programs. In particular, the government cannot separate the analysis of its fiscal position from the obligations it has undertaken outside the budget system. The arrears and other obligations of state-owned and guaranteed institutions, for example, may claim significant public resources in the future. Moreover, the government may have mismanaged some institutions to finance and implement its policies outside the budget system. A string of years with a balanced budget and low public debt suggests neither that the government has been fiscally prudent nor that there will be fiscal stability.

In deciding between alternative forms of support, the government needs to consider the medium-term fiscal impact and allocative and operational efficiency of programs pursued outside the budget to the same extent as with the budget. Medium-term fiscal forecasts, the budget itself, and

government financing and borrowing plans are truly viable only if they provide for contingent and other fiscal risks.

For international institutions, such as the IMF and World Bank, it is time to extend the scope of their fiscal policy and institutional analysis to address contingent and implicit fiscal risks. Also, international institutions should assist countries to develop adequate analytical and institutional capacities, require countries to disclose information regarding their fiscal risks, and enforce limits on the countries' exposure to fiscal risks according to the countries' analytical and institutional capacities.

- Identify, classify, and analyze all fiscal risks in a single portfolio. To understand and prepare for the entire range of potential fiscal pressures, policymakers will have to take stock of all programs and promises and identify and classify the main sources of fiscal risks, as shown in the fiscal risk matrix (table 1). For each item of the fiscal risk matrix and in order of significance, the government needs to analyze the risk factors and ways to control and reduce its exposure to the risks. Qualitative analysis of risks would help the government formulate and design sound new programs and promises.

The government should consolidate the stock of contingent liabilities into a single portfolio, along with state debt and other public liabilities, so that it can evaluate correlations, sensitivity to macroeconomic and policy scenarios, and overall risk exposure. A single portfolio allows the government to relate its contingent liabilities to its comprehensive risk strategy and guidelines regarding risk exposure, asset and liability management, hedging, and benchmarking. As an input into the analysis of risk exposure, the government would also analyze information about budget arrears, state guarantees, state insurance programs, subnational government borrowing, obligations of

state-owned and state-guaranteed institutions, effects of private capital flows, and similar factors. In contrast to the deficit and debt constraints, indicators reflecting a comprehensive analysis of the government's exposure to fiscal risks would have greater predictive value for fiscal stability.

- Determine the government's optimal risk exposure and reserve policy based on its risk preference and risk management capacity. The government needs to base its risk and reserve strategy on its overall risk exposure, risk preference, and ability to manage risk and absorb contingent losses. Ideally, the risk strategy would be tied to the risk preference of the median voter. Similarly, the government would assess new programs based on their marginal impact on overall risk exposure and fiscal outlook. It would agree to further contingent and implicit forms of financial support only to the extent it is able to evaluate, regulate, control, and prevent the risks. If the government has a low capacity to evaluate and manage risks, the best approach is to favor direct subsidies and provision of services rather than guarantees. That is, assuming that the government's intervention in a particular area is justifiable, the government would opt for budgetary financing of its intervention rather than ensuring that particular outcomes will be delivered by the private sector. To this end the government has to enact guidelines for prudent and sound fiscal management (as discussed in the institutional section below).

Reserve funds provide liquidity for guarantees and other contingent liabilities and thereby protect the government against pressures to increase the deficit and debt, cut envisaged expenditures, or default on its obligations if a contingent liability falls due. There is a tradeoff between the opportunity cost of withholding resources instead of spending them or cutting taxes, on the one hand, and the benefits of a reserve fund in promoting fiscal stability and government

credibility, on the other hand. A reserve fund offers the government more financial flexibility to deal with unexpected loss profiles if it sets the whole portfolio of fiscal risks centrally, rather than assigning a risk to each risk separately.<sup>16</sup>

### ***Institutions***

An institutional framework for public finance will encourage the government to pursue sound fiscal performance only if it encompasses both direct and contingent fiscal risks. A framework for public finance management that ignores the future fiscal implications of contingent liabilities and other off-budget commitments will only make such forms of government support look inexpensive and politically attractive.

An adequate institutional framework requires that the government treat any noncash program involving a contingent fiscal risk as it does other budgetary or debt items from the viewpoint of aggregate fiscal stability and allocative and technical efficiency, control, public disclosure, and accountability. Rules for issuing, monitoring, and handling state guarantees and insurance programs and for monitoring and financial management of public, state-guaranteed, and subnational government institutions are also needed. As the role of the state transforms from direct provision of services to guarantees against residual risks, governments need to follow the example of the private sector in deepening their capacities for fiscal analysis and management beyond the state budget and debt.

- *Internalize and disclose the full fiscal picture.* The rules and practices applied in the budget process, financial management, and public accountability framework determine

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<sup>16</sup> Recently, Australia, Canada, and the United Kingdom have moved toward a central pool of unallocated, government-wide reserves.

how much flexibility the government has to assume immediate and future direct and contingent nonbudgeted obligations. Optimally, government choices will reflect qualitative and, where possible, quantitative evaluation of the future outlays and risks associated with alternative forms of government support, including programs outside the budget such as guarantees and activities of state-guaranteed agencies.

To address the problem of government accountability and fiscal discipline outside the budget, public disclosure is more important than full-fledged accrual-based accounting, budgeting, and risk measurement systems. Particularly for governments with lower institutional capacities, the system should require them to assess risk factors, make rough provision for contingent risks in the budget, and publish a statement of contingent liabilities and overall risk exposure. Such a system is more sensible than the optimal institutional framework, which involves accrual-based accounting and budgeting standards and sophisticated risk measurement methodologies.

Accrual-based budgeting and accounting standards make the potential fiscal cost and hidden subsidies of contingent liabilities more transparent *ex ante*. In this context, quantitative risk analysis reveals the difference between the full risk premium, topped up by the cost of evaluating, managing, and monitoring risks, and the fees the government charges for assuming a particular obligation (for instance, the pension liabilities of a privatized enterprise, a guarantee, or state insurance) at the time the coverage is extended. By bringing off-budget commitments into the budget and recognizing the hidden subsidies associated with contingent forms of government support, the government better reveals the long-term cost and benefits of its commitments and

enhances public scrutiny of the potential use of public monies.

Public disclosure of fiscal information extending beyond the budget and direct debt enables the public and markets to monitor the government's full fiscal performance, including the fiscal risks accumulated outside the budget. Market agents such as investors and credit rating agencies are then able to take both direct and contingent fiscal risks into account in their analysis and investment decisions. Their ability to do so in turn indirectly encourages budgetary and overall fiscal discipline. In addition, greater fiscal transparency facilitates parliamentary scrutiny and monitoring by the market, particularly by investors and sovereign credit rating agencies, and by international institutions such as the IMF, World Bank, and European Commission.<sup>17</sup>

Domestically, the government can promote both fiscal transparency and prudent government decisions by empowering the ministry of finance and principal audit institutions to monitor, control, and publish the size of contingent liabilities and other fiscal risks, the extent to which the government's risk exposures conforms to its proclaimed objectives, and the efficiency of both direct and contingent forms of government support.

- Monitor, regulate, and disclose fiscal risks to the public and private sectors. Governments reduce the fiscal risks when they strive to prevent market failures and minimize the moral hazard associated with their programs, commitments, and residual responsibility for market failures. To reduce moral hazard and failures in the markets, the government maintains

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<sup>17</sup> The IMF has outlined the requirements and good practices for fiscal transparency in its *Manual on Fiscal Transparency* (1998). The manual briefly discusses the transparency requirements for contingent fiscal risks.

regulatory and law enforcement systems, monitors the systemic risks in both the private and public sectors, and enforces transparency about the risk exposure of both financial and nonfinancial institutions in the markets. Well-developed regulatory and public disclosure systems are particularly important when government embarks on privatization while assuming an explicit or implicit obligation to cover residual liabilities and ensure that private agents achieve particular outcomes.

Prevention of fiscal risks depends on a combination of analytical tools, incentives, and the capacities of parliamentarians, civil servants, regulators, supervisors, international institutions, and market agents. Research is being conducted to derive simple rules to indicate the dangers to fiscal stability, using indicators such as the total face value of all contingent liabilities, the overall risk assumed by a government, the size and allocation of foreign private capital, and the accrual-based budget deficit. Potentially the best place to develop risk monitoring capacities is in the central bank, given its role in collecting balance-of-payments data and, in many instances, supervising banks. Specific regulatory and supervisory agencies such as the securities and exchange commissions may best handle the monitoring of specific risks. Ultimately, the ministry of finance and the office responsible for public liability management would handle the monitoring and prevention of the government's overall risk exposure.

- Undertake measures to reduce the fiscal risk of individual government programs and promises. Whether the government's programs, promises, and exposure to fiscal risks are appropriate depends on their consistency with government policies and actions. The following aspects of consistency in particular influence a government's fiscal performance:

- Consistency of government programs and promises with the stated role and strategic priorities of the state
- Consistency in the eligibility and management standards applied across government programs over time
- Consistency of the risks assumed and reserves provisioned under a program with the risk management capacities of the government
- Consistency between the authority of policymakers to assume contingent fiscal risks and their accountability.

Table 4 summarizes the steps a government needs to take to control its fiscal risks before, when, and after it announces a program or promise.

**Before Government Admits an Obligation**

***Fiscal Policy***

- Assess how the obligation fits the pronounced role and strategic priorities of the state. What types of support the government decides to offer both outside or through the budget define the actual role of the state. Therefore, programs outside as well as inside the budget should, in principle, be subject to the same type of policy analysis and consideration. In the case of contingent support programs such as guarantees for state institutions and funds, the government must consider whether their objectives fit within its announced role and priorities and whether they justify the potential, risk-adjusted, long-term fiscal costs.

**Table 4: Steps to Control the Risk of Individual Government Programs and Promises**

<b>Measures</b>	<b>Fiscal Policy</b>	<b>Public Finance Institutions</b>
<b>Before</b> government admits an	<ul style="list-style-type: none"> <li>• Assess how the obligation fits the announced role and</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the program risks individually and in a</li> </ul>



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<p>obligation (program, commitment, promise of support)</p>	<p>strategic priorities of the state</p> <ul style="list-style-type: none"> <li>• Consider the choices of policies and forms of support with respect to associated financial risks and government risk management capacity</li> <li>• Define and communicate the standards for and limits of government involvement to minimize moral hazard</li> </ul>	<p>single portfolio along with existing risks, estimate the potential fiscal cost of the obligation, and set an additional reserve requirement</p> <ul style="list-style-type: none"> <li>• Design the program to protect the government against risks</li> </ul>
<p><b>When</b> the obligation is held</p>	<ul style="list-style-type: none"> <li>• Stick to the pre-set limits of government responsibility</li> </ul>	<ul style="list-style-type: none"> <li>• Budget, account, and disclose the obligation</li> <li>• Monitor the program risk factors and reserve-fund adequacy</li> </ul>
<p><b>After</b> the obligation falls due</p>	<ul style="list-style-type: none"> <li>• Execute the obligation within its pre-set limits and identify the lessons for future policy choices</li> <li>• If implicit, assess whether fulfilling the obligation coincides with the state's announced role and promotes desired behaviors in the markets</li> </ul>	<ul style="list-style-type: none"> <li>• Compare and report the actual fiscal costs versus the estimates, evaluate performance, and impose sanctions for failures</li> </ul>

- Consider the choices of policies and forms of support relative to the associated financial risks and government's risk preference and risk management capacity. The quality of fiscal performance benefits when the government acknowledges the

cost of uncertainty about future public financing requirements in considering alternative programs and forms of support for particular policy objectives. As with corporations, an unexpected requirement for financing disrupts financial planning and increases the cost of borrowing or, in a worse case, runs the risk that no credit financing is available. Governments need to evaluate alternative ways to implement their policies not only on the basis of their potential cost and benefits but also on the extent of the uncertainty they involve for future public financing. In addition, the government would judge contingent forms of support in terms of the extent of the asymmetric information and transaction costs. These considerations would be made in the context of the government's own risk preferences and risk management capacities and the reliability of its access to ad hoc borrowing.

- Define and communicate the standards for and limits of government involvement to minimize the moral hazard. It is not so much the budgeted expenditures but the contingent liabilities, particularly the implicit ones, as understood by the public and markets, that define the outer limits of state responsibilities and affect the behavior of the public and market agents. The more formally and precisely the government defines and signals its responsibilities (its area of commitment), the more distinct are the explicit liabilities and the smaller are the implicit liabilities. The more credibly the government defines its responsibilities and the pain market agents will bear in cases of their failure and reliance on government rescue, the less is the problem of moral hazard. Take the example of a society where the government has a strong tradition of extensive public services. In such a case the central government may be expected to take over any obligations of subnational governments in troubles. Such expectations raise a scope for moral hazard on the side of

subnational governments. The central government can reduce the moral hazard by signaling that it will only ensure the delivery of core services to citizens of insolvent subnational governments. At the same time, it can state that it will not bail municipalities out from their debts and non-core expenditure obligations.

The particular task of government is to signal credibly what actions the markets should *not* expect of it in the case of various market failures. If these failures occur, the government will gain needed credibility and reduce moral hazard in the markets, and so curtail its fiscal risks, if it follows through on its stated policies and refuses to submit to pressures for alternative actions.

### ***Institutions***

- *Evaluate the risks of programs individually and in a single portfolio that also contains existing risks, estimate the potential fiscal cost of each obligation, and set additional reserve requirements.* Qualitative analysis of the risk factors in alternative government programs and estimates of their potential long-term fiscal costs and hidden government subsidies prior to any commitment helps optimize the choice and design of government programs. Rough quantification of the risk and potential fiscal cost of government contingent liabilities and commitments requires good qualitative analysis of the underlying risks. Specialized methodologies such as option pricing, actuarial analysis, rate-setting, value-at-loss, and loss-cost ratio are of great value in deriving a more precise estimate of the potential costs of a particular program.<sup>18</sup> According to government reserve policy, the risk

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<sup>18</sup> Various types of risk, such as sovereign (political, legal, and regulatory), financial credit (foreign exchange rate, interest rate, and refinancing), and program performance (development, completion, and operating) compound the fiscal risks of government programs and

exposure of a proposed program added to overall government exposure determines the amount of additional resources that should go into the government reserve fund.

- *Design the program well to protect the government against risks.* Based on the qualitative risk analysis, the government needs to identify those risks it can control reasonably well, decide which risks to cover under its proposed program of contingent support, and develop effective risk-sharing, regulatory, and control mechanisms to monitor the performance of the parties under the program. Apart from exogenous risks such as drought, the government faces endogenous risks that are mainly a function of program design. A poor design can create varying levels of market distortion and moral hazard, whereas a good design can reduce the potential fiscal cost of the program. An example is a guarantee contract that covers only political and not commercial risks, only 30-50 percent of the value of the potential loss, and the last rather than the first portion of the loss. Programs that involve implementation by an intermediary agency that itself must be established, such as a guarantee fund of any sort, are more difficult to design, particularly in terms of management incentives and performance monitoring by the government.

For some programs, the government may charge a risk-based premium, purchase reinsurance from private firms, or contract out particular risk management functions.<sup>19</sup> It may

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promises involving both direct and contingent liabilities. For a more detailed analysis of the types of risk see Chase Manhattan Bank (1996). For methodologies to estimate potential fiscal costs see Mody and Lewis (1997), Mody and Patro (1996) and United States, General Accounting Office (1997).

<sup>19</sup> The ultimate responsibility for project risk evaluation and program design is probably best placed with the ministry of finance, which approves and disapproves any potential financial commitments of the

cancel other programs altogether when it corrects market functioning through its regulatory policies. For example, deregulation of the insurance markets will encourage foreign insurance firms to enter the domestic markets and greatly expand the pooling of some risks so that the private sector can cover them. Risks related to disasters that are uninsurable in a domestic market because the risk pool is too limited become insurable in the integrated international market. The government can in turn end such programs as crop and flood insurance. For the largest financial risks, such as major banking and currency crises, it can be argued that the IMF, World Bank, and other multilateral agencies will provide governments with some kind of reinsurance.

### **When the Government Accepts and Holds an Obligation**

#### ***Policy***

- *Stick to the pre-set limits of government responsibilities.* After the government approves a program or commitment, the main challenge is to ensure that the markets and public do not expect any state support beyond the announced limits over the life of the obligation. Any indication that the government might provide financial support beyond the announced limits will raise the moral hazard and distort the behaviors of the parties potentially benefiting from the program.

#### ***Institutions***

- *Budget, account, and disclose the obligation.* On the institutional side, the government faces the challenge of

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government. The office for public debt management is likely the best equipped to analyze contingent fiscal risks and integrate them into a single public liability portfolio. It is also best placed to decide on hedging and other risk-control instruments. For examples of policies to protect the government against excessive risk exposure see Schick (1998) and Irwin and others (1997).

budgeting, accounting and provisioning for, and disclosing the obligation adequately. How does it ensure that no unknown contingent liability appears only after it is triggered? For instance, the public finance law can state that an obligation is valid only if it was assessed, budgeted, accounted, and, above all, disclosed at the time of its adoption by government.

- Monitor the program risk factors and reserve-fund adequacy. Over the life of an obligation, the government needs actively to monitor the program's risk factors, the performance of the agents under the program and, in this context, also the adequacy of its reserve funds. Monitoring of intermediary agencies, such as banks and various credit and guarantee funds that the state uses to implement its policy objectives and guarantees, is particularly important. If the government lacks a good monitoring capacity, it can contract this task out for a performance-based fee. The cost of monitoring and administering programs of contingent support may be relatively high and should be reflected in the ex-ante calculations of the potential fiscal cost of a program.

### **After a Liability Falls Due**

#### ***Policy***

- Execute the obligation within its pre-set limits and identify lessons for future policy choices. It is critical that the government meet an obligation when it falls due within the stated limits, particularly in terms of the credibility of future announcements and the scope for future moral hazard in the markets. For instance, paying depositors more than the specified deposit insurance levels tells the markets that the government will submit easily to political pressure, tells depositors that banks offering higher yields are "safe," and tells the banking sector that excessive risks are worth taking.

By applying the lessons from its involvement with direct and contingent liabilities, both explicit and implicit, the government is able to adjust its role incrementally, rather than abruptly, in a crisis. A timely and credible explanation of any adjustment in the state's role that will affect future policy choices will prompt the public and market agents to adjust their expectations and behavior. For example, by explaining that the public pension scheme is not fiscally sustainable and that future governments will have to reduce the pension benefit significantly, the government influences the saving behavior of people in the labor force.

- *If an obligation is implicit, assess whether it coincides with the state's announced role and promotes desired market behaviors.*

When public interest groups or market agents suddenly call on the government to extend more support than was originally specified, policymakers need to ask whether extending that support coincides with its announced role and how it affects future behavior in the markets. The long-term damage to the government of acting upon an ad hoc request may sharply exceed the potential short-term benefit. Acting upon ad hoc requests may, however, be politically attractive, and the government is often able to find ways to improperly use financial institutions and funds outside the public sector to implement and finance its actions. Thus the public, investors, and international authorities need to monitor the government's responses to ad hoc claims of an implicit government liability and apply sanctions for fiscally irresponsible choices.

### ***Institutions***

- *Compare and report the estimated and actual cost of government support, evaluate performance, and apply sanctions for failures.* The requirement that the government report and compare the ex-ante risk evaluation and actual layouts for a program is critical to government accountability.

Performance evaluation applies to government departments and officials as well as to the parties under a program. Sanctions may involve government officials (the case where particular interests distorted the ex-ante risk analysis), the managers of state-guaranteed and intermediary agencies implementing the government's programs (such as for exposing the government to unnecessary and excessive risks), and the parties under the program (where they breached an agreement).

### **Calculating the “True” Fiscal Deficit in the Czech Republic**

The Czech Republic has been known for balanced government budgets. In contrast to most countries, however, fiscal performance in the Czech Republic encompasses a significant amount of government activities financed outside the budgetary system. These activities generate fiscal risks. Recently, these off-budget fiscal risks have become more visible, as state guarantees and agencies that are either explicitly or implicitly guaranteed by the government have generated significant claims on the budget. Given the magnitude of off-budget activities, fiscal analysis in the Czech Republic needs to identify all the main activities of a fiscal nature in order to determine the “true fiscal deficit.” Excluding quasi-fiscal activities of the central bank, the Czech National Bank, the “hidden” part of the fiscal deficit comprises two main components: (a) net spending on programs of a fiscal nature by special, off-budget institutions (Konsolidacni Banka, Ceska Inkasni, Ceska Financni<sup>20</sup> and

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<sup>20</sup> Ceska Financni has financed two blocks of programs geared toward bank revitalization. One block, in the total amount of approximately CZK35 bn, is financed and guaranteed by the Czech National Bank. The other, called the Stabilization Program, in the amount of about CZK12 bn is financed through Konsolidacni Bankia, and thus



the National Property Fund) and (b) implied subsidies extended through state guarantees. For financial relationships of the special institutions see chart 1.

For any given year, net public spending by these institutions includes cash outlays on new programs in the form of direct credits and asset purchases,<sup>21</sup> and interest expenditures. This spending is adjusted for debt collection, interest revenue, and other revenue from programs. Table 5 shows the components of the “hidden” deficit. In the remainder of this section we describe each row of this table in more detail.

**Table 5: Sources of the “Hidden” Deficit in the Czech Republic (CZKbn)**

	1993	1994	1995	1996	1997	1998
Konsolidacni Banka (KOB) <sup>1</sup> (net public expenditures)	7.7	7.3	4.5	0.9	10.6	28.8
Ceska Inkasni (CI) (net public expenditures)	20.1	6.6	4.9	4.8	3.1	2.7
Ceska Financni (CF) (net public expenditures)					0.6 <sup>2</sup>	1.8 <sup>2</sup>
National Property Fund (NPF) (net public expenditures excl. KOB and CI)	4.2	8.2	4.3	1.9	2.0	2.6
State guarantees (“hidden” subsidy, risk-adjusted)	0.1	-0.4	1.3	14.9	51.5	26.7
<b>Total (% GDP)</b>	<b>3.2</b>	<b>1.9</b>	<b>1.1</b>	<b>1.5</b>	<b>4.1</b>	<b>3.5</b>

<sup>1</sup> Activities of KOB include a credit to finance the Stabilization Program of CF. Therefore, the table includes only interest payments by CF (which are reported as interest income of KOB).

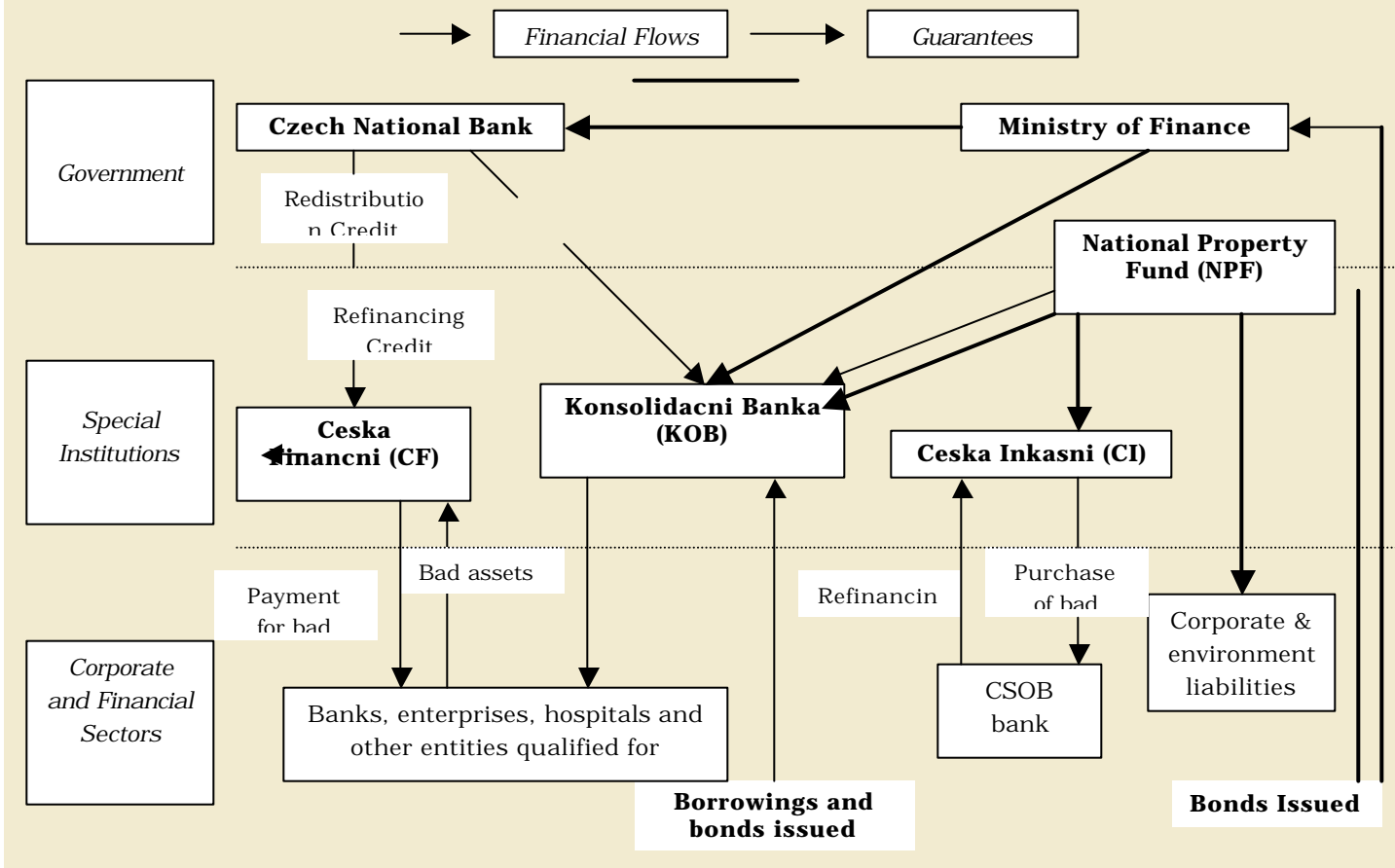
guaranteed by the government. It is only the latter block, which is considered in the “true” deficit calculation. It is included as an activity of Konsolidacni Banka.

<sup>21</sup> The assets purchased through off-budget programs are of extremely low quality. Therefore, the analysis considers asset purchases as a spending program rather than a financial transaction.

<sup>2</sup> These figures are interest payments to KOB on credit taken by CF from KOB to finance the Stabilization Program. In addition, CF paid interest CZK0.8 bn and CZK2.8 bn in 1997 and 1998, respectively, to Czech National Bank on its credit from Czech National Bank to finance the Consolidation Program.

*Source:* Ministry of Finance, Konsolidacni Banka, Ceska Financni, National Property Fund and calculations of the author.

**Chart 1 Financial Relationships of Special, Off-budget Institutions**



Until 1993, off-budget programs had mainly dealt with pre-transition problems inherited by the banking sector. These programs had been financed through Konsolidacni Banka. This bank was capitalized by the National Property Fund (the privatization agency whose revenues are derived from asset sales and borrowing on domestic markets), and borrowing from the Czech National Bank.<sup>22</sup> In 1995, the Ministry of Finance established Ceska Inkasni, a non-bank financial institution with the mandate of cleaning-up the portfolio of a state-owned bank, the CSOB. Covered by a guarantee issued by the National Property Fund, Ceska Inkasni obtained a credit from the CSOB and used this credit to purchase CSOB's bad assets at face value.

During 1996-98, a new bank consolidation and stabilization program was launched to deal with newly emerging problems in the banking sector. In order to implement these programs, the Czech National Bank established Ceska Financni, another non-bank financial institution. In 1998, Ceska Financni had in its portfolio non-performing assets purchased at face value from small and medium-sized banks, (in the amount of about CZK50 bn, which is 3 percent of GDP), which it financed through borrowing (one-third) from Konsolidacni Banka and (two-thirds) from the Czech National Bank.

The Czech National Bank has also financed other bank rescue operations, which have become the source of a further (CZK161 bn, over 9 percent of GDP) addition to its portfolio of substandard assets in 1998. Out of the total amount of substandard assets held by the Czech National Bank, the government covers the risk for 12 percent of the assets. A further, 22 percent of these assets are in the form of a credit

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<sup>22</sup> Debt to Czech National Bank still constitutes about one-half of Konsolidacni Banka's total debt.

from the Czech National Bank to Konsolidacni Banka and thus are indirectly also covered by government.

Aside from the bank rescue operations, Konsolidacni Banka and, less directly, the National Property Fund have also financed government programs to support troubled insurance companies, public hospitals and the Czech Railways, to build infrastructure, and to clean up industrial enterprises for privatization (see table 6). The National

**Table 6: Programs Covered by National Property Fund, 1993–98 (CZKbn)**

	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
Financing environment rehabilitation	0.01	0.1	0.8	1.0	1.4	2.1
Financing the development of railway route				0.1	0.01	0.2
Support to state-owned enterprises	2.1	0.5	0.9	0.3	0.2	0.3
Support to agricultural businesses		6.1	1.0			
Bond Interest	2.1	1.5	1.6	0.5	0.4	0.5
<b>National Property Fund's "hidden" fiscal deficit</b> <b>1</b>	4.2	8.2	4.3	1.9	2.0	2.9
Others, already included in hidden deficit calculation:						
Health insurance companies (through KOB) <sup>2</sup>				0.8	0.4	0.4
Support to aviation companies (through KOB) <sup>2</sup>					0.1	0.02
Provisions to Ceska Inkasni (CI) <sup>2</sup>			3.4	10.3	5.5	6.0
Stabilization program of CF (through KOB) <sup>2</sup>					0.6	1.8
Others, included in the reported budget deficit:						
Transfers according to state budget law <sup>2</sup>	9.5	19.4	10.7			

<sup>1</sup> Excluding transfers to KOB, CI and CF and transfers according to state budget law.

<sup>2</sup> These items are excluded from the "true" deficit calculation. National Property Fund's expenditures related to KOB, CI and CF are accounted for as financing items of these institutions.

Source: National Property Fund's Annual Reports and calculations of the author.

Property Fund has partly financed these programs from privatization revenues but partly also from its debt issuance. Calculation of contributions to the “true” fiscal deficit by the National Property Fund exclude principle repayments and thus do not reflect the ongoing financing of pre-1993 programs by National Property Fund. In addition, both Konsolidacni Banka and the National Property Fund have accumulated their own contingent liabilities in the form of various guarantees.<sup>23</sup>

The impact of guarantees on the hidden deficit is estimated as the net implicit subsidy provided through guarantees in a given year from the portfolio of guarantees issued in that year, or the potential fiscal cost of government obligations, which will emerge from the guarantee in the future. If the amount of this subsidy had been transferred to a guarantee reserve fund the same year the guarantee was issued, it would have served to cover potential future claims emerging from the guarantee. The cost of default would be paid from the guarantee reserve fund and thus would not affect the budget and the deficit.

Assessment of each guarantee and its underlying project had preceded the estimation of their future fiscal costs. Projects were ranked according to their risk. Accordingly, the default risk of each guarantee was estimated. The probability of default was determined by careful consideration of each loan. Table 7 shows the amounts of guarantees issued according to their risk ranking. The implicit subsidy (risk adjusted) imbedded in state guarantees is calculated by multiplying the loan amount for which a guarantee was

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<sup>23</sup> Risk assessment of guarantees issued by the National Property Fund and Konsolidacni Banka is not available. Therefore, calculation of the “true” fiscal deficit only includes the implicit subsidy extended through net spending by the special institutions and through guarantees issued directly by the state, but not guarantees issued by special institutions.

issued by the default risk. To avoid double accounting, the net implicit subsidy, or the net contribution to the hidden deficit in a given year, is defined as the total implicit subsidy provided in a given year minus guarantee claims paid from the budget and reported in the budget that year. Table 8 provides the risk-adjusted amounts of guarantees issued each year and the claims paid from the budget on guarantee defaults each year.



**Table 7: Guarantees Issued (face values, CZKbn)**

	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
Very high risk (90%)	0	0	0	10.8	51.7	31.0
High risk (30%)	0	0	0	16.2	20.3	0
Medium risk (15%)	5.0	0	13.3	3.0	5.8	7.8
Low risk (5%)	3.7	0	1.8	0	0	87.0
<b>Total</b>	<b>8.7</b>	<b>0</b>	<b>15.1</b>	<b>30.0</b>	<b>77.8</b>	<b>125.8</b>

Source: Ministry of Finance and calculations of the author.

**Table 8: Guarantees Contribution to the Hidden Deficit (CZKbn)**

	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
Very high (90%)	0	0	0	9.7	46.5	27.9
High (30%)	0	0	0	4.9	6.1	0
Medium (15%)	0.7	0	2.0	0.4	0.9	1.2
Low (5%)	0.2	0	0.1	0	0	4.4
<i>Sub Total</i>	<i>0.9</i>	<i>0</i>	<i>2.1</i>	<i>15.0</i>	<i>53.5</i>	<i>33.4</i>
Budget paid out (-)	-0.8	-0.4	-0.8	-0.1	-2.0	-6.7
<i>Total</i>	<i>0.1</i>	<i>-0.4</i>	<i>1.3</i>	<i>14.9</i>	<i>51.5</i>	<i>26.7</i>
<i>(as % of GDP)</i>	<i>0.0</i>	<i>-0.0</i>	<i>0.1</i>	<i>1.0</i>	<i>3.1</i>	<i>1.5</i>

Source: Ministry of Finance and calculations of the author.

Levels of the “true” fiscal deficit in the Czech Republic (table 9) indicate that, contrary to the widely accepted view, the Czech Republic’s fiscal performance is not noteworthy for its fiscal restraint. Moreover, demands on new guarantees and programs to be financed through various off-budget agencies are growing. If left to grow as in the past, the off-budget risk to future fiscal stability can increase significantly.

The government is only starting to develop an institutional mechanism to keep a check on its off-budget obligations and the ensuing fiscal risk.

**Table 9: Czech Republic “True” Fiscal Deficit, 1993-1998  
(% of GDP)**

	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
Reported fiscal deficit	-0.5	-1.3	0.3	0.5	1.1	1.4
“Hidden” fiscal deficit in the special institutions (KOB, CI, CF and NPF)	3.2	1.9	1.0	0.5	1.0	2.0
“Hidden” fiscal deficit in guarantees net hidden subsidy, risk-adjusted	0	0	0.1	1.0	3.1	1.5
<b>“True” fiscal deficit</b>	<b>2.7</b>	<b>0.6</b>	<b>1.4</b>	<b>2.0</b>	<b>5.2</b>	<b>4.9</b>

Source: Calculations of the author.

*The sharp increase in the amount and risk of guarantees issued by the state is troubling.* The bulk of the increase has emerged from the government’s support to banks and to the Czech Railways. In 1997 and 1998 the government issued CZK22 bn (1.4 percent of GDP) guarantee to Czech National Bank on some of its very risky lending for bank restructuring and CZK31 bn (nearly 2 percent of GDP) guarantee to a bank (CSOB) on its claim against a Slovak financial institution (Slovenska Inkasni). To support the Czech Railways, the government issued two guarantees, each over CZK20 bn with a very high default risk in 1996 and 1997 on railway

modernization. The hidden cost of guarantees has already started to show as a growing claim on the budget emerging from guarantee defaults. Claims on budget increased from about CZK1 bn annually during 1993-96 to CZK2 bn in 1997 and almost CZK7 bn in 1998.<sup>24</sup>

Another, related, troubling fact is the *rapidly increasing level of hidden public liabilities*. Stocks of these liabilities have been accumulated outside the budgetary system as a result of the hidden deficits (annual flows) mainly in the form of borrowing by the special institutions to finance their government programs.<sup>25</sup> Table 10 shows approximate levels of hidden public liabilities, excluding non-guaranteed quasi-fiscal operations of the Czech National Bank. Comparison of

**Table 10: Hidden Public Liabilities (CZKbn)**

	1993	1994	1995	1996	1997	1998
Konsolidacni Banka (KOB) <sup>1</sup>	79	81	79	70	86	98
Ceska Inkasni (CI) <sup>1</sup>	20	27	25	17	8	7
National Property Fund (FNM) <sup>1</sup>	29	33	40	22	17	15
State guarantees <sup>2</sup>	3	3	6	28	74	107
Hidden public liabilities <sup>1</sup>	131	144	150	137	185	226
Hidden public liabilities (% of GDP) <sup>1</sup>	13.1	12.5	11.1	8.9	11.2	12.7
Reported gross government debt	159	162	154	155	173	194

<sup>24</sup> Since the guarantee claims paid from the budget have contributed to the reported deficit, the “hidden” deficit that emerges from guarantees only includes the difference between the hidden subsidy extended by the government through new guarantees and the claims mostly on guarantees issued in previous years. Unadjusted for guarantee claims, the hidden subsidy through guarantees has actually reached CZK55 bn and CZK32 bn in 1997 and 1998, respectively.

<sup>25</sup> Hidden public liabilities are calculated on gross basis. The analysis focuses on gross liabilities because the quality of directed loans extended and assets purchased through off-budget programs is so extremely low and their potential value is on average estimated around 10 percent (3 percent for CI, less than 10 percent in CF and under 20 percent in KOB).

Reported gross government debt (% of GDP)	15.8	14.1	11.5	10.1	10.5	10.9
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<sup>1</sup> Activities of Konsolidacni Banka include financing of the Stabilization Program of Ceska Financni. Therefore, the table does not include Ceska Financni as a separate entity. All figures are net of provisions and reserves.

<sup>2</sup> Guarantees outstanding at the end of each year adjusted for risk.

Source: Konsolidacni Banka, Ceska Inkasni, National Property Fund and calculations of the author.

the figures of hidden deficits in table 5 and the resulting hidden liabilities in table 10 illustrates the extent of cross-financing among the special institutions and of the use of privatization revenues to partly cover the cost of off-budget programs.

*Off-budget programs*, such as guarantees and support extended through Konsolidacni Banka, National Property Fund, PGRLF (Agriculture Credit and Guarantee Fund) and other, possibly new, agencies and guarantee funds, *impose cost on taxpayers with a delay but with no discount*. As it has already started to happen, past hidden deficits and servicing of the hidden government debt outside the budgetary system gradually generates claims on government budget.

*State guarantees generate significant budget claims*. Assuming no new state guarantees issued, the budget may need to cover about CZK4 bn annually in the future years, and CZK33 bn in year 2002 if the debt of Slovenska Inkasni to CSOB is not resolved. Table 11 builds on table 5 and, taking into account individual guaranteed debt repayment schedule, it shows the expected guarantee claims on future budgets. Figures in table 8 are obtained by multiplying the default risk by annual scheduled payments. More conservative assumptions of default risk would increase the estimated claims on budget resources.

**Table 11: Estimated Guarantee Claims on the Budget (CZKbn)**

<b>Guarantees out-standing in 1998</b>	<b>Average default risk</b>	<b>Expected total claims</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>1999-2003</b>	<b>1999-2030</b>
284.8	38%	107.4 <sup>1</sup>	3.3	4.9	5.4	33.3	3.7	50.5	97.8

<sup>1</sup> The government guarantees both interest and principal repayments. This figure represents net present value of guarantee claims on future budgets.

Source: Ministry of Finance and calculations of the author.

Another source of future claims on the budget is *Konsolidacni Banka*. *Konsolidacni Banka* experienced about CZK14.4 bn loss in 1998, which will be covered by state bonds issue. Assuming no new programs, the analysis of *Konsolidacni Banka*'s asset portfolio indicates that its future losses and potential claims on the state budget are likely to stabilize in the neighborhood of about CZK6 bn annually in 1999–2001. However, new government programs that require further borrowing by *Konsolidacni Banka* without generating adequate revenues will further increase *Konsolidacni Banka*'s debt service and, thus, losses.

Without further privatization revenues, National Property Fund will need to further borrow to meet its commitment vis-à-vis *Ceska Financni*, *Ceska Inkasni*, environmental recovery and railway development, and to cover principle repayments for its obligations.<sup>26</sup> To meet its obligations, analysis of the National Property Fund's commitments, excluding those vis-à-vis *Konsolidacni Banka*, suggests that the Fund will annually need about CZK15 bn during 1999–2003 and about CZK33 bn in 2004.

In the medium to long run, off-budget financing of government activities, guarantees and other contingent

<sup>26</sup> The initial bond issuance by National Property Fund was used mainly to capitalize *Konsolidacni Banka*.

liabilities, surface as government debt increases. In the Czech Republic, the expected increase in public debt by the amount of hidden public liabilities estimated around 12.7 percent of 1998 GDP (see table 10) is significant but not disastrous. What appears as disastrous is the dynamic in the rise of the hidden public liabilities. Clearly, the levels of new guarantees issued and new government programs entrusted for financing to Konsolidacni Banka are not sustainable. Their continued growth at the current pace may in a few years endanger fiscal stability, and thus play against the country's objective of EU accession. The situation will appear more serious if "implicit" government liabilities were included in the deficit and debt calculations.

Finally, off-budget programs contribute only marginally to achieving main policy objectives of the government and, in some instances, may even undermine these objectives. What have been the results of off-budget programs in the Czech Republic? To support reforms and prevent problems from recurrence? Or just to pay for failures that are likely to occur again? A brief overview suggests that many off-budget programs, such as bail-outs of banks and health insurance companies, have done the latter. Sometimes, programs, which did not qualify for budgetary support (for example an additional subsidy to railways) did qualify for assistance outside the budget (such as a very risky guarantee extended to railways). Moreover, often, these programs have implied that government will help again in a case of future failures, and thus have generated moral hazard among market agents, reducing their incentives to improve productivity and competitiveness. This way, the objective of EU accession and integration with European markets, which poses high requirements on competitiveness of banks and enterprises in the Czech economy, may have been undermined.

## **Conclusions**

Governments face four types of fiscal risk: direct and contingent, each of which may be either explicit or implicit. Most governments and fiscal analysts concentrate on direct liabilities (direct explicit, such as the public debt and government budget, and direct implicit such as future pension and social security liabilities). Recent international experience, however, indicates that significant fiscal instability may result from contingent liabilities (contingent explicit such as the obligations of state-guaranteed institutions and deposit insurance, and contingent implicit such as local government obligations, foreign credit of the domestic corporate and financial sectors, and banking failures).

Therefore, a study of government fiscal position cannot be separated from obligations taken by the government outside the budgetary system. Fiscal analysis and medium-term fiscal framework for countries must factor in the cost of implicit subsidies provided by the government in the forms of contingent support programs. For international institutions, such as the World Bank and IMF, it is time to: (a) extend the scope of their fiscal, policy, and institutional analysis beyond the budget and debt; (b) require countries to disclose information about their contingent government risks; and (c) assist countries to reform their analytical, policy, and institutional public finance frameworks to address all major fiscal risks.

Critically important to long-term fiscal stability and equity is public recognition of the limits of the state's role and the associated direct and contingent fiscal risks. Public accountability of politicians and civil servants in areas beyond the state budget must be defined to promote prudent and efficient fiscal policies and management. Governments need to address the sources of fiscal risks in three ways: (a) by

understanding existing and future fiscal risks and pursuing policies that foster appropriate fiscal adjustment; (b) by developing an institutional framework that involves adequate public disclosure and incentives with respect to fiscal risks, and that promotes fiscal prudence and equity in all government programs, including those extending support outside the budget system; and (c) by building and employing institutional capacities to evaluate, regulate, control, and prevent financial risks in both the public and private sectors.

The case study of fiscal adjustment in the Czech Republic demonstrates the importance of including contingent liabilities when assessing the magnitude of the true fiscal adjustment, and when analyzing fiscal sustainability. To the extent that explicit expenditures are shifted off-budget or replaced by the issuance of guarantees the achieved improvement in fiscal balances is overstated. For the Czech Republic we find that adjustment may have been over-stated by some 3-4 percent of GDP annually. The accumulation of contingent liabilities today is a threat to future fiscal stability. Hence, a stabilization program that is accompanied by a build-up of contingent liabilities may not be sustainable.

There are three areas where further work is clearly needed. First, there is a need for governments to develop better techniques for identifying and evaluating contingent liabilities arising from the banking system (Honohan 1999 develops general guidelines), non-banking financial institutions, state guarantees, public enterprises or contingent and direct liabilities of sub-national governments. Second, governments need to apply techniques to manage their risks, for instance build adequate reserve funds and hedge risk when plausible. Third, the implications of the analysis for budget management and for administrative reform need to be developed. Today politicians in many countries have an incentive to create more contingent



liabilities: they allow them to cater to requests from different constituencies while maintaining deficit targets, and they are not subjected to the same level of scrutiny by cabinet and parliament as direct spending. Future work could help develop alternative systems that would remove this bias for more contingent liabilities.

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## 8

# ON MEASURING THE 'NET WORTH' OF A GOVERNMENT

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## Introduction

In many ways one sees the public asking, “what is government worth?” or “what is government’s value?” In attempting to answer such questions, citizens usually have access to limited financial reports—like the one below. What kind of information do such reports typically convey regarding government worth or value?

**Table 1. Financial Statement of Government X for year Y**

<b>Revenue</b>	
<i>Levied through the Government's Power</i>	
Direct Taxation	21,260
Indirect Taxation	11,722
Compulsory fees, fines, penalties and levies	258
Sub Total	33,240
<i>Earned through the Government's Operations</i>	
Investment Income	1,154
Unrealized gains(losses) arising from changes in the value of commercial forests	78
Other operational revenue	420
Sales of goods and services	689
Sub Total	2,341
<b>Total revenue</b>	<b>35,581</b>
Total Revenue as a % of GDP (3)	36.0%
<b>Expenses (by line item)</b>	
Salaries and other personnel	13,000
Service expenditures	10,000
General expenditures	8,000
Capital expenditures	2,000
Capital expenses	800
Working capital	100
Debt repayments	100
Other	211
<b>Total expenses</b>	<b>34,211</b>
Total Expenses as a % of GDP (3)	34.6%
<b>Surplus: Revenue less expenses</b>	<b>1,370</b>

The answer to the question is: very little. Government financial reporting is notoriously limited to short-term activities, as represented in line item budgets that detail money spent on inputs. From such reports it is possible to work out the size of the civil service (at least roughly) and how much government has overspent in the current period (the deficit). Accompanying documents sometimes provide detail about longer-term capital and debt positions, but this information is usually selective and difficult to locate. One is thus left asking typical questions household ask of their own net worth or value: “Apart from my short-term position, how am I faring over the long-run—do my assets exceed my liabilities (especially those that could be called contingent liabilities)?” “How valuable are my long-term assets, are they holding their value and am I using them efficiently?” “How much value do I add on an annual basis (what kind of performance do I achieve with my short-term cash outlays)?”

These kinds of questions suggest the multiple dimensions of a household or organization’s worth or value: short-term value, long-term worth and value-added (or performance). These dimensions pertain to governments as well. Common financial management practices in the developing world, often influenced by reforms focused on deficit reduction, reflect a short-term value concentration, and encourage the entrenchment of incentives associated with such. This narrow valuation approach ignores the other important value dimensions.

Recent reform literature argues that the long term and performance dimensions can only be introduced once the basics of short-run financial management are in place (Schick 1998, World Bank 1998). The present paper argues differently, that a continued narrow evaluation approach yields potentially permanent organizational damage because of the narrow behavioral incentives it entrenches. If developing governments are allowed (and encouraged) to concentrate on short-term financial condition alone, the importance of long-term financial management and public sector service performance will be undermined and these government value dimensions will deteriorate. Governments need to move beyond a short-term focus, by adopting new tools and institutionalizing new reporting procedures and conventions, to ensure an effective and appropriate picture of net worth or value is constantly available.

## The Three Dimensions of Government Value

Evaluation literature emphasizes that government evaluations should extend beyond short-run issues of control and liquidity (Osborne and Gaebler 1992, Shah 1998). Such evaluations, it is increasingly argued (at least in the western world), should reflect short-term financial conditions, as well as long-term financial concerns and achievements in terms of service provision (Buschor and Schedler 1994, Mikesell 1995, Auerbach, Kotlikoff, and Lieberitz 1999). These three value dimensions are shown in table 2 and explained briefly thereafter.

**Table 2. Government Value Dimensions**

<b>Value Dimension</b>	<b>Focus</b>	<b>Bottom-line</b>
<b>Short-term financial condition</b>	Short-term liquidity	Ability of government to spend within cash resources, and not to burden society with excessive spending
<b>Long-term financial condition</b>	Short, medium, and long term financial condition	Ability of government to manage resources effectively and efficiently over the long run, to maximize the use of social resources
<b>Service performance</b>	Efficient provision of relevant services	Ability of government to respond to citizen needs effectively and efficiently, facilitating growth and development

Short-term liquidity and financial accountability is an important focus in the public sector. Like any going concern it is important that governments report on their in-period financial position, ensuring a constant view of their liquidity, and promoting accountability. Governments failing to maintain necessary balances, or to control funds reliably from budget to activity, are considered inefficient. A second value dimension emphasized in recent work is long-term financial condition. Concern for pervasive mismanagement of long-term finances in governments has led to a certain degree of what could be called ‘generational angst’—“the fear that we are bequeathing enormous fiscal bills to our children” (Kotlikoff and Leibritz 1999: 73). This concern has stimulated a need for evaluations on government management of factors affecting organizational and social ‘wealth’—capital, liabilities, and so forth. Evaluating these aspects encourages governments to focus on the future as well as the present. Recent literature suggests that emphasizing short-term control and liquidity is insufficient to provide a complete view of government value, however. There is a growing interest in how governments



impact society through their performance, and a focus on making “government managers . . . accountable to ensure that their organizations are as productive as possible” (Dittenhofer 1999: 103). This focus yields an evaluation emphasis on government service performance. The measurement and evaluation of such performance is the driving thrust of the results movement.

### **The Deficit Concentration in Developing Country Reforms**

Financial management in the developing world often involves a mix of deeply entrenched rules and as deeply entrenched disdain for rules (Schick 1998). Commentators suggest that the rules are applied to limit access to financial information, not to increase information-based accountability as they do elsewhere (Andrews forthcoming). Dominant reforms emphasize establishing basic enforceable controls and promoting a value orientation and evaluation mechanisms focused on improving short-term fiscal discipline (Schick 1998, World Bank 1998).

### ***The Reform Argument: Short-term Rules Now Facilitate Other Value Concerns Tomorrow***

These reform perspectives argue that the multi-dimensional public value perspective, encapsulating concern for service performance and long-term ‘wealth,’ is only relevant in governments where the basics of financial management have been established. These voices support the introduction of reforms focused on improving short-term financial management and controls, aimed at achieving short-run fiscal discipline in public financial management systems before attempting to develop a performance orientation and long-run planning and budgeting capacity. As such, these commentators believe that a narrow value orientation in the short-run could be expanded once such an orientation is reliably established.

### ***But Reforms with a Short-run Concentration Lead to a Neglect of Other Value Dimensions***

South Africa is a good example of these reforms in action, where rule-bound cash accounting and incrementalism characterized traditional practices, and deficits dominated financial reports. Recent reforms have been specifically directed at lowering the deficit, reflecting the state macro-economic strategy (Abedian 1998). These reforms involve direct applications of legislation to control spending in sub-national

governments, the imposition of hard budget constraints on government departments, and the development of medium term expenditure frameworks to improve short-run allocative efficiency and to provide a basis for longer-run planning.

In analyzing the status of financial management and budgeting in South Africa, a focus on short-term value emerges. The country has been successful in reducing deficits as a percentage of the total budget, for which it has received significant praise. Departments and sub-national governments appear more disciplined in their short-run fiscal management, which have accorded them praise. Unfortunately, however, even with these positive achievements, the other dimensions of government performance have suffered:

- Long-run concerns such as investment in new capital and management of long-term liabilities have been neglected in the budget (Cameron and Tapscott 2000). National and provincial capital spending has decreased as a percentage of the budget even though the government emphasizes its own developmental role in principle.<sup>1</sup> Attempts to legislate reforms to ensure an increased focus on long-term investment in infrastructure have failed (Business Day 1999).
- Government service performance has come under increasing criticism and is not explicitly reported on in budgets or financial reports. Government entities at all levels are argued to lack the capacity to perform even basic services well, and are criticized for concentrating on managing their inflated personnel bills instead of their service performance.

### ***The Burning Questions***

Observers of financial management reforms in countries like South Africa are left asking the following questions:

- Do good short-term evaluations in terms of deficit figures outweigh bad evaluations in terms of service performance and long-term financial condition?

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<sup>1</sup> National spending on fixed assets accounted for about 3 percent of the budget in 1990 and now accounts for 1.3 percent (South African Reserve Bank statistics). Provincial expenditure on capital was less than 6 percent of the budget in all nine provinces, with KwaZulu-Natal reporting on zero capital spending in 1999 (Cameron and Tapscott 2000: 84, Andrews and Moynihan 2002).

- Will the neglect of two dimensions of government value, long-run financial position and service performance, hurt countries in the long-run (or will the achievement of short-run value facilitate a multi-dimensional perspective in the future)?
- How can government finances be managed (and reported on) to facilitate a multi-dimensional reflection of government value?

### **Incentives Associated with Short-run Evaluations, and Concern for Government Value**

All evaluation methods have an impact on incentives. The old performance adage is that 'what gets measured gets done.' This established, the argument of this paper is that focusing on one aspect of government value (the short-run fiscal discipline) when in fact government value consists of three aspects, leads to incentives that make a more comprehensive valuation perspective difficult to establish in the future. In governments like South Africa, where entrenched practice and conventional reforms both foster a short-run 'discipline' concentration, it is typical to find managers behaving in certain ways, responding to short-term incentives. These incentives become entrenched in public sector budgeting and financial exchanges, leading to a concentration on inputs instead of results, capital neglect, and intergenerational money shifting.

### **Concentration on Inputs, Not Results, of Government Action**

The short-run discipline emphasis communicates that government value is all about government controlling what it does, rather than government doing what it does well and ensuring that what it does is relevant. This message fosters an incentive for managers to concentrate on inputs and rules rather than on results. This incentive is manifest internationally where government financial systems have public managers accounting for their input expenditures, and reporting on their ability to abide by rules of process and procedure instead of the results they produce. Reforms concentrating on these factors entrench this incentive, and will reduce the potential for government managers and policymakers to embrace a more comprehensive value perspective in the future.

### **Capital Neglect**

Another incentive of the short-run bias manifests in poor management of long-term assets. The influence of traditional valuation methods on capital management is quite complex, and in every way negative. On the one hand, managers neglect infrastructure maintenance and the purchase of new infrastructure in the current period because short term cash drain registers to pay for maintenance in the current period are not visibly offset by long term gains in terms of added capital value. On the other hand, because the value of existing capital is not included in regular evaluations, it is considered a free good for public service managers. This discourages the responsible use of assets and results in managers holding onto (but neither using effectively nor maintaining) old infrastructure that could generate value in other hands. Managers also neglect the development of new capital required to generate value and services in the future, failing to build the capacity to develop new infrastructure (because management concerns are focused on the present, not the future). South Africa is an example, with decreases in capital expenditure (in absolute terms and as a percentage of total expenditure) tracking both the short-term policy orientation and the short-term value gains (the reduced deficits) (Andrews forthcoming). Positive evaluation, measured in terms of a reduced deficit, comes at a high price when managers are simultaneously encouraged to neglect future investment.

### **Intergenerational Money Shifting**

A final incentive manifests in the temptation to move money gained from past savings or due for future commitments into current funds to bolster the picture of current 'value' (shifting future income to the present can reduce current deficits and boost current evaluation results). There are many examples of governments spending reserves without citizen permission or knowledge, and showing current period surpluses when in fact dwindling reserves are not reported, or are hidden in the details of financial reports reflecting a current period bias. Governments also use money meant for future commitments to account for current short-falls (the future commitments could be either explicit future liabilities, contingent liabilities, or intergenerational items like social security or pensions). This kind of behavior leaves governments open to significant financial shock when the future commitments fall due, and is

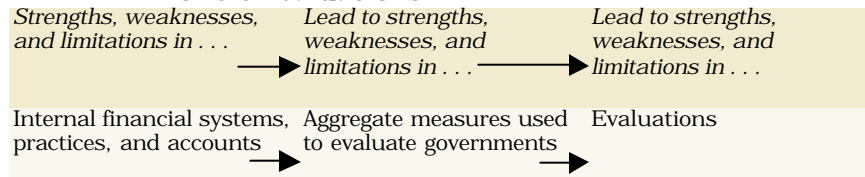
entrenched whenever the short-run value perspective is allowed to consolidate the already short-run personal interests of individual budgeters.

### **Choosing Tools that Measure and Report on ‘Net Worth’ in all its Dimensions**

The obvious argument here is that governments need to go beyond the short-run fiscal discipline emphasis if they are to truly facilitate evaluations of government net worth, and to create incentives for managers to develop all three dimensions of such worth. The concentration of government evaluations is dependent on the facts and figures on which the evaluation is based, however. The quality and scope of these facts and figures is strongly related to the tools used (and the focus they reveal) in the accounting process from which such figures emanate. This is shown in figure 1.

The challenge for government accountants and financial managers is to adopt accounting tools that are both strong and multi-dimensional, such that they yield financial accounts that reflect all three aspects of government value. Consider, for example, the challenge of re-focusing deficit figures.

**Figure 1: Financial Systems, National Income Accounts, and Deficit Evaluations**



Governments in the developing world (and the developed world) are often evaluated on the basis of their deficit performance, although it is accepted in some arenas that “the deficit is an arbitrary accounting concept whose value depends on how the government chooses to label its receipts and payments” (Kotlikoff and Leibritz 1999: 73). Consider, for example, that in developed countries like the United States the deficit statistic is developed without recognition to some important long-term liabilities and public commitments, while in countries in the developing world the deficit statistic is drawn from an accounting process in which cash-based accounts fail to reflect even medium-term commitments made in a given period. In no country does the deficit incorporate accounts reflecting effectiveness or efficiency of spending, largely because of the inherent limitations of the measure and

various political interests that systematically oppose its adjustment (e.g. political re-election interests focus on short-term, not long-term expenditure effects).

In order to ensure that governments are evaluated in a multi-dimensional sense, government financial managers need to re-consider how it labels its receipts and payments, what it measures, and how it reports on such. To do this, governments around the world are being forced beyond using traditional accounting tools, which focus on short-term value. Countries like New Zealand, United Kingdom, and Malaysia have built on traditional accounting approaches to provide more complete measures of the three dimensions of government value. The main accountability dimension emphasized in the new financial management practices in these countries is the performance focus and the particular tools that have been adopted to improve internal and external evaluation in these governments include: accrual accounting, explicit valuation of contingent liabilities, intergenerational accounting, capital charging, activity-based costing, and the publication of performance statements.

### **Accrual Accounting**

A number of countries including New Zealand, Australia, Singapore, United Kingdom, United States, and Iceland have adopted accrual-based accounting for their whole-of-government financial statements and budgets. Accrual accounting has several implications for the incorporation of longer-term issues into the budget process and into aggregate figures used to evaluate governments. First, expenses are recognized when they are incurred rather than when they are paid. As a result, expenditures, which are building up over time but are not payable until later, are nonetheless reported as expenses, showing total resource costs of commitments. Second, all assets, including infrastructure, are valued and reported in the balance sheet to draw attention to their management as well as to the maintenance of their values. Third, all liabilities are recorded in the balance sheet. For example, unfunded public service pension plans are recognized as liabilities in the balance sheet and correspondingly the full increase in this liability in any period is recorded as an expense in the budget operating statement.

### **Providing an Explicit Value for Contingent Liabilities**

Most public accounts processes do not report on, or attach an explicit value to, contingent liabilities. This problem is being addressed through a two-pronged process of reporting on such liabilities, and valuing them through a 'marketizing' process. In New Zealand, a Statement of Contingent Liabilities is presented with other financial statements—facilitating an evaluation of the details of contingent liabilities. Contingent liabilities are also shown in Australian government financial statements. Since 1996 such information has appeared in the public sector account and as separate lists to facilitate a partial evaluation of the statistics within the aggregate deficit figures and a more complete analysis supplementing such statistics (providing detail of the liabilities). In both countries, the contingent liabilities are being explicitly valued through a 'marketizing' process. There are several ways of 'marketizing' contingent liabilities, including purchasing insurance to cover expenses arising from a potential liability, or selling the rights over the yield of pending debt and reflecting such in the deficit.

### **Intergenerational Accounting**

One of the big questions of government accounts is: how does today's spending affect tomorrow's fiscal condition? One way of "valuing" this intergenerational effect is through intergenerational accounting, a tool first employed in the 1993 budget in the United States and later in other countries, including Germany, Italy, New Zealand, Norway, and Sweden.<sup>2</sup> It was developed to estimate what different generations would pay in taxes and receive in benefits over their lifetimes given existing policies, thus focusing on questions of intergenerational equity. Although some authors are skeptical of intergenerational accounting, its recent popularity speaks to its potential, especially in providing a clear assessment of the impact of long-term commitments on society and on government value (Haveman 1994).

### **Activity-Based Costing**

Good cost accounting is central to accurate data for evaluation. There is a need "to evaluate the costs of producing outputs and outcomes on a continuing basis in order to

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<sup>2</sup> A list of countries is found in Auerbach, Kotlikoff, and Lieberitz (1999).

evaluate performance and allocate resources” (Rodriguez 1995). Governments generally lack an accepted methodology of cost measurement and evaluation, however; particularly one that allows for cost comparison of output (Tierney 1994). Activity-Based Costing (ABC) is the most common device in results-oriented governments in the developed world (Simpson and Williams 1996). It has been used widely in local governments especially, and has proved particularly popular in entities attempting to compare their performance with private sector standards and to evaluate the full costs of production (including overhead and capital costs) (Andrews and Moynihan 2002). It involves relating input costs to activities within organizations and then relating the activities to the factors that drive costs—generally the output objectives of the organization.

### **Capital Charging**

Full costing not only provides a more accurate picture of relative production efficiency; it also plays an important role in developing incentives for efficient results production. If administrators are not required to accurately measure their overhead and capital costs, they lack the incentive to manage these resources efficiently and effectively. When these costs are included in their management decisions, managers have an incentive to actively manage how much capital they use, and to strategize about latent capacity. The cost of asset usage may also be incorporated in the operating statement by a capital charge, which is a charge against a department or agency’s appropriation to cover the cost of the assets it uses in delivering its programs. This encourages attention to asset management; for example, by reducing or restraining its asset levels, a department can reduce the amount of the capital charge against its appropriation. The experience in countries like New Zealand suggests that capital charging, when applied in conjunction with accrual accounting, increases the focus on longer-term issues.

Capital charging requires the valuation of capital assets, another important element of determining government ‘net worth.’ Many governments are being called to value assets and report on and account for their use (as evidenced, for example, in the GASB 34 requirements in the United States). Governments have not traditionally valued assets, however, and often have many questions regarding how this should be done (questions which are also convenient to hide behind). Conventional accounting practices in the private sector require



that assets be valued according to their depreciated historical costs, but governments generally have very little information about the historical cost of assets, especially those dating back decades (Paton and Bean 2001: 39-41). Because of this kind of problem, Statement No. 34 allows time for retroactive reporting and requires reporting only of major assets in the United States. Approaches taken to evaluating assets include using historical records that do exist for some assets (recently built) as the basis of evaluation for all, or using a deflated current replacement cost approach whereby a current replacement cost is calculated and then deflated given the age of the asset in question. These approaches allow governments to provide some detail as to the worth of their physical infrastructure—a key aspect of their net worth and social value.

### **Multi-dimensional Reporting**

The various mechanisms discussed briefly here all point to a financial management approach that reflects value or worth in terms of more than a short-term perspective. It is important that, once these tools are in place, managers also report on worth or value along different perspectives. In New Zealand this is achieved by providing three reports, the Operating Statement, Statement of Financial Position and Statement of Service Performance. All three formats are provided as tables 3, 4 and 5, reflecting details from the same government whose financial statement opened the paper in table 1. Consider the improved reporting detail, especially as it pertains to the way in which government net worth (on all three dimensions) is portrayed.

Table 3 reports on short-term financial condition in a subtly different way when compared with table 1. Expenditures are listed by functional department, all of whom are accountable for performance in terms of set contracts. This allows citizens to see exactly where money is going (by department, each of which is a performance entity and independent cost center). There are also expenditure items facilitating allocations to future projects and to contingencies.

Table 4 allows observers to view the long-term worth of a government, detailing its assets (which have all notably been valued) and its liabilities (including such contingent liabilities as pensions). Observers can assess exactly which kinds of assets the government owns, and can compare the government's asset wealth with its liabilities, to investigate its

long-term net worth (calculated as the difference between total assets and total liabilities).

**Table 3. Reporting on Short-term Fiscal Position  
(related to value or worth)**

<b>Operating Statement</b>	
<b>Revenue</b>	
<i>Levied through the Government's Power</i>	
Direct Taxation	21,260
Indirect Taxation	11,722
Compulsory fees, fines, penalties and levies	258
Sub Total	33,240
<i>Earned through the Government's Operations</i>	
Investment Income	1,154
Unrealized gains/(losses) arising from changes in the value of commercial forests	78
Other operational revenue	420
Sales of goods and services	689
Sub Total	2,341
<b>Total Revenue</b>	<b>35,581</b>
Total Revenue as a % of GDP (3)	36.0%
<b>Expenses</b> (by functional department, entity, all of whom are accountable for performance in terms of set contracts)	
Securities Commission	423
Education	5,714
Social security and welfare	13,003
Health	6,001
Core government services	1,562
Law and order	1,345
Defence	1,065
Transport and communications	948
Economic and industrial services	840
Heritage, culture and recreation	297
Housing and community development	29
Other	167
Finance costs	2,804
Net foreign-exchange losses/(gains)	13
Provision for future initiatives	-
Contingency Expense	-
<b>Total Expenses</b>	<b>34,211</b>
Total Expenses as a % of GDP (3)	34.6%
<b>Surplus: Revenue less expenses</b>	<b>1,370</b>

**Table 4. Reporting on Long-term Fiscal Value (or Worth)**

<b>Statement of Financial Position</b>	
<b>Assets</b>	
Cash and bank balances	196
Marketable securities and deposits	7,581
Advances	2,871
Receivables	5091
Inventories	295
State-Owned Enterprises	18,483
Other investments	214
Physical assets	14,502
Commercial forests	505
State highways	8,210
Intangible assets	20
<b>Total Assets</b>	<b>57,968</b>
<b>Liabilities</b>	
Payables and provisions	4,457
Currency issued	1,741
Borrowings	35,972
Pension liabilities	8,328
<b>Total Liabilities</b>	<b>50,498</b>
<b>Net Worth: Total Assets less Total Liabilities</b>	<b>7,470</b>

As per the example in table 5, departments in countries like New Zealand and United Kingdom produce a version of a Statement of Service Performance, outlining the outputs produced versus the benchmarked production goals (Ball 1994). Because statements are uniform, requiring information about outputs (in terms of quantity, quality, timeliness and costs) and outcomes, the government can sum them up to provide holistic financial statements about the in-period results of government entities. In these countries the performance data are presented and published in conjunction with other financial statements, providing a source of evaluation of the social impact of government as well as a device to help governments allocate resources strategically. The kind of information found in such statements provides insight into the results produced by specific parts of government, and when summed up, sheds light on the performance (or value-added) of government as a whole.

**Table 5. Reporting on Value-added (or Performance)**

**Statement of Service Performance**

<b>Department /agency/other entity</b>	<b>Output, and related outcome goal</b>	<b>Results: quantity (activities). Quality Timeliness, Costs</b>
Securities Commission	<p><u>Output:</u> To promote public understanding of securities law through publications, communications and such (as detailed in service contract).</p> <p><u>Outcome:</u> To strengthen public and institutional confidence in securities markets</p>	<p><u>Quantity:</u> The Commission published four issues of The Bulletin (as was targeted in the Commission's Performance Targets). The Commission satisfied 1607 miscellaneous inquiries from members of the public (target for the year 1200). The Commission issued 22 statements to the news media (target for the year 25). The Commission published 51 exemption notes on the website (no target for the year).</p> <p><u>Quality:</u> The Commission based its work on observed market practice and on sensible interpretations of securities law. It aimed to simplify the expression and content of the law. Material in The Bulletin and on the website was current, relevant and useful (as determined by the national Bar Association review, and the results of the National Securities Association member survey).</p> <p><u>Timeliness:</u> The Bulletin and other public understanding projects were completed on time. Public inquiries were all actioned within five working days of receipt (as targeted).</p> <p><u>Costs:</u> The Commission allocated 11.7 percent of its expenditure to this output (budget for the year 11 percent).</p>
	<p><u>Output:</u> To review securities law and make recommendations for reform.</p> <p><u>Outcome:</u> To strengthen securities markets</p>	<p><u>Quantity:</u> The Commission worked, often with the Ministry of Economic Development, on a number of projects and reviews including work on the Securities Regulations 1991, the Securities Act 1988, administration and efficiency, - surveillance and detection powers, insider trading law and retirement village schemes.</p> <p><u>Quality:</u> The Commission complied with its obligations under the Securities Act 1991 and with other relevant legislation. It based its work on accurate research into, and analysis of, the existing law and practice. Any recommendations set out and applied the relevant values and principles, including where appropriate the costs and</p>

Department /agency/other entity	Output, and related outcome goal	Results: quantity (activities). Quality Timeliness, Costs
Education	<p><u>Output:</u> To build new schools in District Y.</p> <p><u>Outcome:</u> To increase citizen access to schooling facilities.</p>	<p>benefits of the Commission's proposals according to the best available information and method of analysis. The Commission aimed to simplify the expression and content of the law. The process was based on wide and open consultation with all affected interests, including the general public or organizations representing sections of the general public. The Commission acted independently.</p> <p><u>Timeliness:</u> The Commission aimed to meet the timetables of all those to whom its communications were addressed (as required by its performance agreement). The Commission met agreed timetables when working on specific projects with other agencies.</p> <p><u>Costs:</u> The Commission allocated 15.2 percent of its expenditure to this output (budget for the year 14 percent).</p> <p><u>Quantity:</u> The Department completed building on 20 high schools to house between 100 and 200 children in district X, which is 80% of the target. 5 Schools previously planned were not completed but are in various stages of construction. Plans for 5 other primary schools were completed in the period, to be built in the coming year (this planning activity matches targeted performance).</p> <p><u>Quality:</u> The 20 completed schools were built according to the highest industry standards in the area, with at least 20% of the worker-hours coming from local contractors. The plans are of the highest standard (as verified by the National Institute of Architects) and the building processes meet all standards of the National Building Federation.</p> <p><u>Timeliness:</u> The 20 completed schools were generally completed on time, as specified in the performance targets. The 2 schools in zone y were completed one month after target.</p> <p><u>Costs:</u> The department allocated 30% of its allocation to building schools in this District. In the year the department spent 22% of its allocation on building schools in the District (under-spending)</p>

**Conclusion:  
Accounting and Reporting for  
Government Net Value**

This paper looks at the link between financial evaluations and the way government conceptualizes (and reports on) its net worth or value. The paper shows that, while there are three dimensions of government value reflected in the literature, most developing countries only emphasize one dimension in their financial management approaches and reforms. Dominant reform voices argue that this narrow value orientation is appropriate for reforms in the short-run, and can be expanded once such an orientation is reliably established. The current paper disagrees, and suggests that incentives associated with the narrow value orientation, and entrenched through current short-run focused reforms, constitute a barrier to financial evaluation based on all three dimensions.

The broad picture of government value is a central tenet of recent public reform successes in countries like New Zealand and Australia. These reforms emphasize establishing a government culture, and government evaluations, emphasizing all three value dimensions. This emphasis is credited with the successful outcomes of those reforms, and perhaps more importantly, with encouraging incentives for public accountability in terms of the funds they use in the short-run, the services they provide to their constituents, and the plans they enact for future development. One can contrast this comprehensive evaluation approach with the short-run concentration in developing countries like South Africa. Countries like South Africa can also be contrasted with these successes in terms of the kinds of incentives that characterize their organizations. Emphasizing one value aspect at the exclusion of the others is harming the ability of these governments to truly achieve multi-dimensional value. The only way to achieve such value is by expanding their scope and adopting reforms in which practices are introduced that focus attention on cash flows, outcomes, and investments—moving from one-dimensional financial management to three-dimensional financial management in the developing world.

There are a number of practices that governments are being encouraged to adopt to provide a more holistic picture of government worth or value, facilitating more effective reporting on service performance and long-term financial position, two dimensions of government accountability emphasized in recent literature and policy. Practices like accrual-based accounting do not make all the difference on their own, however, as each individual new practice reflects individual aspects of government value. This is shown in table 6, where each practice is generally linked with only one or two aspects of government accountability.

**Table 6. Putting the Practices Together - To Fill Evaluation Gaps**

<i><b>Value aspect</b></i>	<i><b>Focus</b></i>	<i><b>Practice</b></i>
Short-term financial condition	Short-term liquidity	Cash accounting, Accrual accounting, Marketizing contingent liabilities, Activity-Based Costing
Long-term financial condition	Short, medium, and long term financial condition	Accrual accounting, Marketizing contingent liabilities, Intergenerational accounting, Capital charging
Service performance	Efficient provision of relevant services	Activity-Based Costing, Performance reporting

It is when new practices are combined (with each other as well as with old cash management approaches) that they help to provide a larger picture of government worth and value, through bolstering deficit figures and supplementing such with other information that is as important, if not more important, in the current report card public accounts environment. New Zealand provides an example.

On the basis of accrual accounting, incorporating a capital charge, and Activity-Based Costing, government departments in New Zealand provide a full set of financial statements to the executive and treasury on a monthly basis. This full set of statements facilitates the development of more complete aggregate financial statistics and, because statements are uniform, they can be summed to provide holistic financial statements. Government accounts thus show the net worth of government. They are also supplemented with a Statement of Service Performance, outlining the outputs produced versus



the outputs agreed upon, and giving information about purchase performance much as a private firm would. All these practices combined provide information about short-term government fiscal accountability and position, long-term financial health and asset worth and short-term value-added (or performance).

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# 9

## ON GETTING THE GIANT TO KNEEL: APPROACHES TO A CHANGE IN THE BUREAUCRATIC CULTURE

*Anwar Shah*

Source: Shah, Anwar, editor (2003), *Ensuring Accountability When There Is No Bottom Line*, Vol. 1 of *Handbook on Public Sector Performance Reviews*. Washington D.C.: The World Bank.

### **A Primer on Results Oriented Management and Evaluation (ROME)**

Public sector continues to face a crisis of public confidence in both industrial and non-industrial countries. Examples of government inefficiency and waste abound in most countries. For example in the USA, the Federal Aviation Administration still relies upon dinosaur computers with green screens that run on vacuum tubes. These computers are estimated to impose \$3 billion in wasted aircraft fuel, delays, missed connections and labor costs. The U.S. Defense Department (Pentagon) has in the past paid \$89 for a \$1 screwdriver and the US. Department of Agriculture until recently had 2,700 words specification of "French fries." Of course, these examples pale in comparison to grand theft carried out by "roving political and bureaucratic bandits" in developing countries. In industrial countries, citizens are expecting their governments to do more with less. In developing countries on the other hand fairly fundamental dysfunctionality of public governance remain areas of major concern. In these countries, a government is either seen as predatory or even criminal. In some countries, the concept of citizenship or civic responsibility does not exist and effective management of state in this context means that the ruling elite doles out benefits to its personalized client networks.

Perceptions about some governments as “*the coldest of all cold monsters—whatever it says it lies—and whatever it has—it has stolen*” and others which simply exist to extract rents may not be very far from the truth.

A major difficulty in these countries is that public theft by “roving bandits” encourages capital and skilled labor flight leading the economy to a state of collapse such that not much is left for either the roving bandit or his subjects unless external help is available. But external help aggravates the temptations of such a bandit as he/she has a short time horizon. It helps if such a bandit makes the country a home and becomes a “stationary bandit” as in such circumstances, the time horizon of the ruler expands and his/her fortune gets tied with the fortune of the nation. This explains the reason why in the countries ruled by roving bandits, people show a great deal of tolerance for military coup d’etat. Such transformation typically leads to a short period of tranquility but little improvement in the quality of life in the long run. The record of industrialized countries shows that democratic participation is the only form of government with a consistent record in ensuring good governance. This is because only the democratic form of government ensures property rights and enforcement of contracts. Democratic governance, however, cannot simply be mandated from above. Putnam (1994), in *Making Democracy Work*, argues “that democratic institutions cannot be built from top down. They must be built in the everyday traditions of trust and civic virtue among its citizens.” Localization and accountability for results helps in building such trust and virtue.

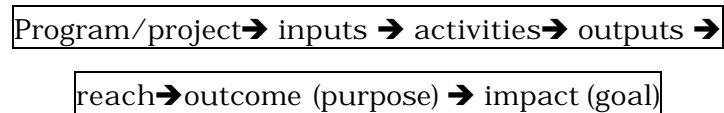
Over the years, industrial countries have shown a remarkable change in the performance of their public sectors. It is interesting to note that this change was brought about not through a system of hierarchical controls as is the focus in most developing countries but more through strengthened

accountability to citizens at large. The elected representatives made a commitment along the lines the oath required of the members of the City of Athens which stated that:

“We will strive increasingly to quicken the public sense of public duty; that thus ... we will transmit this city not only not less, but greater, better and more beautiful than it was transmitted to us.”

This accountability for results was further strengthened by accountability of the executive to the legislative branch. Overall the emphasis of these systems of accountability has been to bring about a change in both bureaucratic culture and incentives public employees face. This cultural change during the 1990s has been brought about by strengthening results orientation to the public sector. This is done by steering attention away from internal bureaucratic processes and input controls (hard controls) to accountability for results (soft controls). While various countries have followed diverse policies to achieve this transformation, the underlying framework driving these reforms is uniform and firmly grounded in the results oriented management and evaluation (ROME) framework. Under ROME, a results based chain provides a yardstick for measuring public sector performance. Such a focus in management dialogue reinforces joint ownership and accountability of the principal and the agent in achieving shared goals by highlighting terms of mutual trust.

### **Results Oriented Management and Evaluation Chain**



Most ROME related approaches have the following common elements:

- Contracts/work program agreements based upon pre-specified outputs and performance targets and budgetary allocations
- Managerial flexibility but accountability for results
- Subsidiarity principle
- Incentives for cost efficiency.

Results oriented management and evaluation (ROME) provides a coherent framework for strategic planning and management based upon learning and accountability in a decentralized environment. The key to successful implementation of ROME is through the transparency achieved by the public commitment to a few but vital expected outcome results, based on the agency's outcome related strategic goals. Thus internal and external reporting shifts from the traditional focus on inputs to that of outputs, reach and outcomes, in particular, outputs that lead to results. Further, these results are themselves now stated in terms of development achievements. Programs, activities, processes and resources are thus aligned with the strategic goals of the agency and flexibility in project definition and implementation is achieved through a shift in emphasis through strict monitoring of inputs to performance results and their measurements. Tracking progress towards expected results is done through indicators, which are negotiated between the provider and the financing agency. This joint goal setting and reporting helps ensure client satisfaction on an on-going basis while building partnership and ownership into the project.

The ROME reforms within an institution are underpinned by devolution and delegation of authority. However, this requires a two-way flow of information, achieved through a strengthened accountability mechanism in the form of performance reporting, greater emphasis on monitoring and evaluation of results, and individual performance agreements

which focus on results. Thus under ROME, accountability becomes positive and forward looking, based upon continuous and systematic feedback and learning. That is each unit provides information on results achieved against the agency's strategic goals allowing for benchmark comparisons and learning across organizational boundaries. In addition, it also provides senior management with concrete evidence on which to base allocation decisions. Thus devolution, participation and accountability are all important aspects of this process.

Under ROME, budget allocations support contracts/work program agreements based upon pre-specified outputs and performance targets. Managerial flexibility in input selection including hiring and firing of personnel and program execution is fully respected but at the same time they are held accountable for achieving results. The subsidiarity principle of lowest level assignment of responsibility unless a case can be made for higher level assignment strengthens accountability for results while enhancing consistency of public service provision with local preferences. Finally, under a ROME framework, cost efficiency is rewarded through retention of savings. For calculation of costs, activity based costing including charges for capital/asset use are required. As the focus of the approach is on learning, failure to meet commitments may be tolerated but a failure to share values invites severe sanctions.



### **Implications of ROME for Civil Service Reform**

Civil servants in developing countries are typically poorly paid for the work rendered but instead receive high perks and further enrich themselves through graft and corruption. They have life-long tenures. Innovation and risk taking is not tolerated. In an attempt to limit graft, strong input controls and top-down accountability is enforced. In addition, senior civil servants are rotated periodically from one position to another. But such practices weaken accountability further. A ROME framework, in contrast, calls for competitive wages and task specialization (“stay-with-it culture”), and lack of formal tenures. Public providers are given the freedom to fail or succeed. Instead public employees hold the jobs so long as they are able to fulfill the terms of their contracts. Persistent failures initiate the exit process. Responsiveness to citizenry and accountability for results are the cornerstone of this approach. The ROME framework offers a great potential in developing countries to improve public sector governance by nurturing a responsive and accountable governance. It may also prove to be one of the most potent weapons against bureaucratic corruption and malfeasance. A recent empirical study on the determinants of corruption by Gurgur and Shah (1999) supports this view as it shows that political and bureaucratic culture and centralization of authority represented the most significant determinants of corruption in a sample of 30 countries. They further find that raising public sector pay and wages as part of an anti-corruption strategy is not likely to yield any gains in reducing corruption.

#### **Box 1. Making the Dog Wag its Tail**

##### **Current**

Input controls  
Top-down accountability  
Low wages but high perks  
else  
Life-long and rotating  
appointments

##### **Future**

Results matter  
Bottoms-up accountability  
Competitive wages but little  
else  
Stay-with-it-culture but exit  
with persistent failures

## **Experience with ROME**

Several countries have experimented with various versions of ROME. Of these, experiences of New Zealand, Canada and Malaysia offer interesting insights as discussed below:

### **The State Under Contract: The New Zealand Model**

New Zealand represents one of the boldest experience in transforming the public sector by using a private sector management and measurement approach to core government functions. To introduce a cultural change from input controls to output accountability in the public sector, New Zealand, during the past decade, revamped a tenured civil service and instead made all public positions contractual based upon an agreed set of results. Even the central bank governor was required to enter into a contract with the parliament. Under the terms of this contract, the tenure of the central bank governor was linked to inflation staying within a band of 3 percent per annum. The policy development and implementation functions, financing, purchasing and providing functions were separated. This enabled the government to focus on policy and financing and bringing the private sector in partnership with public sector in the provision function. Program management was decentralized at delivery points and managers were given the flexibility and autonomy in budgetary allocations and program implementation within the policy framework and the defined budget. Capital charging and accrual accounting were introduced to have a complete picture on the resource cost of each public sector activity. Non public functions were either commercialized or privatized. Responsible fiscal management was encouraged through requirement of maintaining positive

net worth of the government as part of the contract by the Minister of Finance.

The new contractualism version of ROME introduced by New Zealand led to a remarkable transformation of the Kiwi economy. It was transformed from a highly protected and regulated economy with an expansive range of intrusive and expensive interventions, to an open and deregulated economy with a lean and efficient public sector (see Walker 1996). The central government deficits were eliminated, debt reduced and the government net worth became positive while improving the quantity and quality of public services. Even more remarkable results were achieved at the local level. For example, the Mayor of Papakura by introducing new contractualism brought an astonishing turnaround to the fortunes of the town of Papakura by eliminating debt and reducing taxes while improving the quality and quantity of public service provision.

To be sure there was limited social policy fall-outs with this approach. Social service provision to minority communities experienced some difficulties as cost cutting pressures under commercialization occasionally led to curtailed access by minority communities. In isolated cases, new contractualism failed as bureaucratic incompetency failed to ensure strict safety standards as witnessed in the collapse of a newly constructed viewing platform at Cave Creek that resulted in deaths of scores of tourists.

### **Getting Government Right - The Canadian Approach**

Canada in 1994 adopted its own version of ROME to deal with persistent public sector deficits, a large overhang of debt and growing citizen dissatisfaction with the public sector. Canada rejected new contractualism and instead opted for the so-called alternative service delivery framework (ASD) for public sector reforms using the so-called new managerialism

approach. ASD represents a dynamic consultative and participatory “process of public sector restructuring that improves the delivery of services to clients by sharing governance functions with individuals, community groups, the private sector and other government entities.”

As part of the program review process under ASD, departments and agencies were required to review their activities and programs against the following guidelines.

***Six Guidelines of Program Review***

- 1) *Public Interest Test* - Does the program area or activity continue to serve a public interest?
- 2) *Role of Government Test* - Is there a legitimate and necessary role for the government in this program area or activity?
- 3) *Federalism Test* - Is the current role of the federal government appropriate, or is the program a candidate for realignment with the provinces?
- 4) *Partnership Test* - What activities or programs should or could be transferred in whole or in part to the private/voluntary sector?
- 5) *Efficiency Test* - If the program or activity continues, how could its efficiency be improved?
- 6) *Affordability Test* - Is the resultant package of programs and activities affordable within the fiscal constraints? If not, what programs or activities would be abandoned?

The Canadian experience with ASD to-date has shown remarkable results. Federal deficit was cut from 7.5 percent of GDP in 1993 to a balanced budget in 1998. The number of federal departments were reduced from 38 to 25 and the civil service size was reduced from 220,000 to 178,000. Allocations to social services, justice, and science and technology were increased while the remaining services saw a reduction in the budgetary allocations. Citizen-centered

service delivery enhancements were achieved through clustering of services around the needs of citizens, regulatory reform to encourage competition and innovation, cost recovery from services benefiting special segments, and continuing re-evaluation of programs to support alternative service delivery mechanisms. The overall impact of these reforms was an improvement in service delivery and citizen satisfaction.

### **From Government to Governance in Malaysia**

ROME was not built in a day and, as discussed earlier, there is now abundant literature on the ROME type innovations pioneered by New Zealand, Australia, and Canada among others. Interesting enough, this literature has not fully recognized the contribution of Malaysia where some of the innovations predate the experience in industrial countries. Malaysian experience is of special relevance to developing countries as Malaysian public sector suffered at least some of the dysfunctionality of public sector as experienced in other developing countries in the late 1980s. Thanks to some bold initiatives undertaken by Ahmad Sarji under the leadership of Prime Minister Mahatir Mohammed, Malaysia had a significant degree of success in getting the public sector giant to kneel so that citizens can get aboard.

Since early 1990s, Malaysia has gradually put in place aspects of results-oriented management to create a responsive and accountable public sector governance structure. Various elements of this approach that have been implemented are:

- *Missions and values*: All public agencies are required to specify their mission and values with a view to justify their roles and to inculcate positive values in public administration.

- *Strengthening client orientation:* A Client' Charter was established in 1993. This charter requires all agencies to identify their customers and establish their needs. Agencies are further required to notify clients about standards of services available. Public agencies are expected to report annually both on service improvements and compliance failures. A corrective action is required to deal with compliance failures. Clients have a right to redress through the Public Complaints Bureau.
- *Managerial flexibility with strong accountability for results:* This is achieved through the implementation of an output based budgeting system and activity based accounting system. It has further introduced capital charging and accrual accounting. The output budgeting system requires "program agreements" for delivery of outputs but permits managerial flexibility in achieving agreed upon results. Performance indicators for government agencies and other public service providers are maintained.
- *Decentralized decision making:* Malaysia has overtime sought to strengthen decentralized decision making by strengthening local governments and by deconcentrating federal government functions.
- *Strengthening the integrity of the Malaysian civil service:* Malaysia has one of the strongest anti-corruption law and devotes significant resources to implement this law.
- *Partnership approach to service delivery:* A partnership approach to service delivery is attempted through ensuring contestable policy advice, deregulation and active promotion of public-private collaboration in public services.
- *Ensuring financial integrity:* This is achieved through internal and external audit. The Auditor General

provides the Parliament with a financial integrity audit. This report is widely disseminated.

In sum, Malaysia is at the cutting edge of public sector institutional development, innovation, and performance in developing countries. It has followed innovative approaches to improve public sector performance. Its challenge is to strengthen the new culture of governance that it has attempted to create by dealing with implementation issues through training and corrective action. In addition, it needs to start addressing some of the issues that have received inadequate attention so far. These include (a) strengthening central bank independence and focusing its role solely on price stability; and (b) achieving a better integration of development and operating budget processes.

### **Beyond ROME - Measuring Performance When There is No Bottom Line**

The whole of government performance monitoring is of interest to get an overall measure of public sector performance and citizen accountability of the political regime. Such measurement is becoming increasingly popular in industrial countries. The State of Oregon, USA set up an independent board to develop and monitor measures of social well-being (158 such measures in 1991 now reduced to 20 in 1999) of state residents. The State of Florida initially established 268 indicators dealing with progress in families and communities, safety, learning, health, economy, environment, and government. It has more recently abandoned this effort. The Province of Alberta, Canada has established 27 “measuring up” quality of life indicators. New Zealand reports on the net worth of the government. UN. publishes human development indicators and Huther and Shah (1998) developed comprehensive indicators of the quality of governance incorporating citizen participation,

government orientation, social development and economic management for a sample of 80 countries.

The experience with the whole of government performance measurement has shown mixed results partly due to a lack of interest by the media and the legislatures. In general in the absence of major crisis, politics of budgetary decision making reduces the usefulness of these performance indicators. A major difficulty with aggregate performance indicators arises from “looking for keys under the lamp post reflex” meaning that what may be measurable and is measured may not be relevant for policy or accountability purpose. Outcome measures at conceptual level offer diffused accountability. Instead the focus on outputs and reach as practiced in New Zealand and Malaysia offers greater potential for accountability for results.

### **Epilogue - ROME - A Road Map to Wrecks and Ruins or to a Better Tomorrow?**

The success of ROME in practice in a few selected countries has invited a heated controversy and debate among public sector management practitioners with a fairly vocal group (Schick 1998, is the leading exponent of this viewpoint) arguing against application of such principles in developing countries. A plethora of arguments are put forward to support this view. It has been argued that the real issue of civil service reform is not its efficiency but its underdevelopment. Input control systems are not well developed. There is no sense of public responsibility and as a result managerial discretion will enhance opportunities for abuse of public office for private gain. Due to political interference, potential for contract enforcement is quite weak. The use of ROME will further weaken top down accountability as the focus changes to results rather than inputs, rules and procedures. It is further argued that the use of this approach



will not work for craft (research and development) and coping (e.g. disaster relief) organizations as the focus on outputs will discourage innovation, risk taking and timeliness of the response. In social services, it is argued that access to the needy and the poor may not be assured under a system which places high premium on operational efficiency. Finally, others have argued that ROME is a fad and a developing country should simply wait it out until a newer fad emerges.

While there is some merit in the arguments advanced against the use of ROME, but on balance, the case for application of ROME in developing countries is further strengthened in view of the institutional weaknesses highlighted above. The underdeveloped bureaucracy and input controls argument suggests that modern accounting systems that trace the flows of inputs have not proved helpful. This is because the experience shows that performance improvement gains from the implementation of such systems have been minimal and instead these systems provide a cover for the abuse of public funds by facilitating “getting the books in order”. As outputs for a large majority of public services are readily observable and their reach can be measured, ROME provides a much better handle on accountability in governance in weak institutional environments. Hierarchical input based accountability has typically failed to deliver public sector mandates. Indeed craft and coping organizations require care in how their results based chain is evaluated. In social services, similarly, design of incentives are critical to forestall any fall-outs and instead encourage access to all through competition and innovation. For example, a grant structure that treats all providers – public and private on equal basis with continuation of eligibility tied to conditions on the standards of services and access to such services rather than spending levels can overcome the moral hazard (see box 2). ROME is of course not a fad either as it was

**Box 2. Education Grant to Encourage Competition and Innovation**

*Allocation basis among local*

*governments*

: population aged 5-17

*Distribution to providers*

: Equal per pupil to both government and private schools

*Conditions*

: Universal access to primary and secondary education regardless of parents' income. No condition on the use of grant funds.

practiced with great success in traditional societies long before modern bureaucracy was invented. Even in personal and family decision making ROME is the only approach typically taken by most individuals in decision making e.g. building and fixing a home and seeking other services. Many developing countries facing large fiscal crisis and in the absence of external help would simply have no choice but to adopt ROME to overcome these crises to set their houses in order. In general bottoms up accountability is the key to the success of ROME and such accountability requires decentralized decision making. In conclusion, globalization,

localization and ROME offer a strong potential for improving public sector performance in developing countries.

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# 10

## A FRAMEWORK FOR EVALUATING INSTITUTIONS OF ACCOUNTABILITY

**Mark Schacter**

Source: Shah, Anwar, editor (2003), *Ensuring Accountability When There Is No Bottom Line*, Vol. 1 of *Handbook on Public Sector Performance Reviews*. Washington D.C.: The World Bank.

### **Why Institutions of Accountability Matter**

If men were angels, no government would be necessary. If angels were to govern men, neither external nor internal controls on government would be necessary. In framing a government which is to be administered by men over men, the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself. A dependence on the people is, no doubt, the primary control on the government; but experience has taught mankind the necessity of auxiliary precautions.<sup>1</sup>

In politics as in government, first comes power and then comes the need to control it.<sup>2</sup>

The concept of accountability, together with the institutions through which the concept is articulated and implemented, is perhaps the single most important factor that controls holders of political and public administrative power. As Paul Thomas has observed, "Accountability is at the heart of governance within democratic societies."<sup>3</sup>

Citizens grant sweeping powers to the political executive. They entrust it with authority to raise and spend public funds, and responsibility to decide on the design and implementation of public policy. In turn, citizens want to guard against abuse by the executive of these powers. On a more operational level, they also want to ensure that the executive uses its power

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<sup>1</sup> Rossiter. 1961 (ed.). *Federalist Paper* No. 51, published in 1788.

<sup>2</sup> Schedler (1999a).

<sup>3</sup> Thomas (1998), p. 348.

wisely, effectively and efficiently, and that it will be responsive to demands by citizens to change the ways in which it carries out its functions. They expect, therefore, that the executive will be held accountable to them for its actions.

Accountability has a particular urgency in the developing world, where many countries are either groping their way through transition to democracy, or are seeking to consolidate a democratic order. Though the formal trappings of democracy may have been installed, states may still find themselves “haunted by old demons that they had hoped to exorcise with democratic rule: violations of human rights, corruption, clientelism, patrimonialism, and the arbitrary exercise of power.”<sup>4</sup>

To an unacceptable extent in many democratic states, rulers remain free to act as they please, unfettered by an infrastructure of checks and balances. This indicates that direct accountability to citizens via the ballot box is not sufficient to ensure a healthy relationship between the governors and the governed. As the quotation at the head of this section suggests, there is an additional requirement for the state to *restrain itself* by creating and sustaining independent public institutions empowered to oversee its actions, demand explanations, and, when circumstances warrant, impose penalties on the government for improper or illegal activity.

### **Horizontal vs. Vertical Accountability**

As the preceding paragraph indicates, there is a distinction to be made between the accountability imposed upon a government *by its citizens*, and accountability that a government *imposes upon itself* through the creation of public institutions whose mandate is precisely to act as a restraint on government. This distinction is referred to by some theorists as “vertical” accountability (to citizens, directly) versus “horizontal” accountability (to public institutions of accountability—IAs).<sup>5</sup>

Vertical accountability may include citizens acting directly via the electoral process, or indirectly via civic organizations

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<sup>4</sup> Schedler, Diamond, and Plattner (1999), p. 1.

<sup>5</sup> See O'Donnell (1999), Stevens (undated).

(“civil society”) or the news media.<sup>6</sup> Horizontal accountability, because it refers to the range of public entities that checks abuses by the executive branch of government, may be exercised by institutions and organizations as diverse as:

- the legislature
- the judiciary
- electoral commissions and tribunals
- auditing agencies
- anti-corruption bodies
- ombudsmen
- human rights commissions
- central banks.

Some of these bodies may have a constitutional basis, while others may be founded in statute. Some may have a purely watchdog function, while others may have quasi-judicial and/or punitive powers.<sup>7</sup> Institutions of horizontal accountability, carrying the formal stature and legitimacy that goes with having been created and empowered by the state itself, play the dominant role in restraining executive power. As the World Bank has observed,

Sustainable development generally calls for formal mechanisms of restraint that hold the state and its officials accountable for their actions. To be enduring and credible, these mechanisms must be anchored in core state institutions.<sup>8</sup>

Even so, institutions of horizontal accountability, on their own, are not enough. It has been plausibly argued that institutions of horizontal and vertical accountability are fundamentally interconnected, in that the former are not likely to exist in a meaningful fashion without the latter. Horizontal accountability, being the work of public institutions, amounts to a restraint that the government *consents to impose upon itself*. This begs the question:

Who is eager to respond to nasty questions in public? Who yearns for punishment for misbehavior? Governments usually do not. They understand that institutions of accountability limit their freedom of action and that they contain the potential to bring them into painful and

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<sup>6</sup> Schedler, Diamond, and Plattner (1999), p. 3.

<sup>7</sup> See Stevens (undated), Diamond (1999), Schedler, Diamond, and Plattner (1999), p. 3.

<sup>8</sup> World Bank (1997b), p. 99.

embarrassing situations. So why should they be interested in establishing them?<sup>9</sup>

The response<sup>10</sup> is that governments agree to bind themselves through institutions of accountability under circumstances where citizens will punish them for failing to do so. In other words, horizontal accountability will only be effective and sustainable if governments see benefits in it, and it is the operation of vertical accountability, particularly the electoral process, that causes governments to perceive the benefits.<sup>11</sup>

There is good reason for arguing that an active and organized civil society is another important vertical factor compelling governments to bind themselves to horizontal accountability, especially when there is *also* a democratic electoral process in place. Tendler's recent work provides persuasive evidence on this point.<sup>12</sup> This paper focuses primarily, though not exclusively, on institutions of horizontal accountability.

### **Analytical Framework for Evaluating Institutions of Accountability—Working Model**

This section of the paper proposes an analytical framework, or model, for understanding and evaluating the performance of IAs with respect to their impact on controlling public-sector corruption.

Accountability problems in developing countries are numerous and diverse, as are their causes and eventual impacts. It is intended that the framework presented here will help the World Bank and its developing-country partners to “see the forest for the trees”. It is hoped that it will expedite the analysis and prioritization of problems concerning IAs and corruption in developing countries. The framework should provide a sound basis on which the Bank and its partners may develop and implement strategies for strengthening

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<sup>9</sup> Schedler (1999b), p. 334.

<sup>10</sup> *Idem*

<sup>11</sup> Schedler argues that certain conditions must apply to the electoral process in order for vertical accountability to be an incentive for the creation of horizontal accountability. See p. 334.

<sup>12</sup> Tendler (1997).

accountability as a countervailing force to corrupt behavior by public office holders.

The model presented here concentrates on the interaction between IAs and the executive branch of government, and on how the interaction is mediated by various factors. (Vertical accountability institutions such as civil society and the news media play an important role in affecting the performance of horizontal IAs. Thus, although the paper focuses primarily on horizontal IAs, it will also address these key vertical IAs.) The paper also takes initial steps in developing performance measures to evaluate the effectiveness of IAs with respect to controlling corruption (see p. 13 and annex 1).

In particular, the objective is to provide a simple but robust analytical tool that will facilitate the World Bank's anti-corruption work by helping it and its partners to:

- proceed on the basis of a succinct and robust working model of IAs and their relationship to corruption
- identify critical blockages to effective operation of IAs with respect to corruption
- untangle IA problems which can effectively be addressed via external development assistance from those which are primarily dependent on local actors and local efforts
- identify the most relevant forms of development assistance for particular IA problems
- set priorities and strategies for dealing with IA problems.

### **The Accountability Cycle**

At the core of the analytical model is an *accountability cycle* set within *contextual factors* (see figs. 2-4).

- The *accountability cycle* (see fig. 3) is an idealized model of the relationship between an IA and a unit of the executive branch. It describes in stylized form the internal logic of the IA-executive relationship. The cycle has three stages: **Information** (or input), **action** (or output) and **response** (or outcome).

⇒ the model assumes that the presence of a minimum level of *information* is a primary binding constraint to the effective operation of the cycle.

- *Analysis of contextual information* is necessary in order to understand and explain the workings of the accountability cycle (see figure 4).



⇒ In some cases, the degree to which the accountability cycle functions well or poorly may be explained by factors internal to the cycle itself. But often, the cycle will be profoundly affected by social, political and economic factors that shape the environment within which the cycle operates. Attempting to understand the accountability cycle without reference to contextual information is likely to lead to misleading conclusions and inappropriate remedial interventions.

The accountability cycle is illustrated in figure 3. The model describes a relationship between the IA and the executive the ultimate purpose of which is to compel the executive to explain and justify its behavior, and, where appropriate, take corrective action.

The model has three steps, which may be described as *information*, *action*, and *response*<sup>13</sup> (or *input*, *output* and *outcome*), as follows:

- **“information”** or **“input”** – the framework proceeds from the assumption that information is the critical input into the IA; effective performance of the IA depends on the degree to which it can obtain – either directly from the executive or indirectly from other sources – relevant, accurate, and timely information about the activities of the executive;
  - ⇒ developments at this stage of the cycle depend on the amount of information made available by the executive, as well as the capacity of the IA to gather whatever information may be available.
- **“action”** or **“output”** – based upon the information inputs, the IA should be able to *act*; it produces demands

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<sup>13</sup> The model follows from a common-sense understanding of the relationship between IAs and the political executive. It also emerges from the accountability literature. Thomas (1998), at p. 353, observes that “The regular reporting of information, monitoring and periodic answerability are the procedural manifestations of the existence of an accountability relationship.” Schedler (1999a) maintains that accountability “involves the right to receive information and the corresponding obligation to release all necessary details. But it also implies the right to receive an explanation and the corresponding duty to justify one’s conduct.” (p. 15).

(explicit or implicit)<sup>14</sup> upon the executive to explain and to justify the manner in which it is discharging its responsibilities;

⇒ developments at this stage of the cycle depend upon what the IA is *capable and willing to do* with the information; i.e. the capacity and willingness of the IA to, first evaluate and analyze the information, and, second, to use that information as a basis for making relevant and important demands on the executive for explanation and justification of its actions.

- **“response”** or **“outcome”** – the IA’s outputs are intended to incite a response from the executive; an “outcome”, for the purposes of the framework is a response<sup>15</sup> by the executive to the demand placed upon it by the IA; the IA’s effectiveness is determined, ultimately, by the appropriateness and timeliness of the reaction that it is capable of eliciting from the executive;

⇒ developments at this ultimate stage of the cycle depend upon the degree to which the executive feels compelled to respond to the IA.

The accountability cycle provides a template for understanding and evaluating the performance of any IA. The focus of the analysis and the kinds of performance indicators that might be used for a particular IA would depend upon the characteristics and circumstances of that IA. But the logic of the accountability cycle suggests that in all cases, the evaluation would focus on three kinds of questions:

- What information can the IA obtain; how well does the information meet criteria of relevance, accuracy, reliability, timeliness and comprehensiveness?
- What is the IA able to do with the information?

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<sup>14</sup> Implicit demand would be, for example, when an IA produces a report suggesting unacceptable practices within the executive but does not explicitly demand an explanation. Under some circumstances, publication of such a report could generate a demand for a response, even if the demand does not come directly from the IA that produced the report.

<sup>15</sup> Which could take varying forms—explanation, justification, corrective action, etc.

- What kind of response is the IA able to generate from the executive?

The accountability cycle in its idealized form (i.e. in the absence of contextual information) provides a hierarchy of priorities for crafting a program of action to build the capacity of IAs. The information-action-response sequence builds on an assumption that *information is the most basic, necessary condition for the effective functioning of an IA*. Every IA needs some minimal level of access to information related to the activities of the executive. We assume that no meaningful accountability relationship is possible in the absence of a certain minimum quantity and quality of information being available to an IA.<sup>16</sup>

Assuming that the primordial information hurdle can be overcome, one proceeds to the next critical barrier to effective IA performance, which relates to the IA's capacity to use information to produce outputs (i.e. actions vis-à-vis the executive). To be effective, the IA must be capable of understanding and analyzing information about the executive, transforming the analysis into coherent demands upon the executive for answers, and communicating those demands to the executive.

Finally, even if the IA has the minimum level of capacity required to place demands on the executive, it must have sufficient power, either formal or informal<sup>17</sup>, to elicit a meaningful response from the executive.

Therefore, if evaluation of IAs provides evidence of poor performance in more than one of the three areas, the *prima facie* rule of thumb (before contextual factors are added to the analytical mix) would be to concentrate remedial efforts on the

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<sup>16</sup> This proposition is well grounded in common sense. It is also found in the scholarly and practical literature. Some examples: Dye and Stapenhurst (1998)—“... the currency of accountability is information.” Caiden (1993)—“... dealing with administrative corruption ... [presupposes] freedom of information” and “The public cannot hold anyone responsible for things that they do not know about.” See also Stevens (undated) and Tendler (1997).

<sup>17</sup> The news media in advanced democratic societies is an example of an IA with fairly significant informal power vis-à-vis the executive. The executive has no particular formal responsibility to the news media, and yet may feel compelled to answer to news stories about public sector misbehavior, and perhaps take corrective measures as a result.

lowest rung of the hierarchy. That is, address problems at the *information* stage before tackling those at the *action stage*, and address problems at the action stage before problems at the *response* stage.

This is not to suggest that one could in fact operate in this strictly sequential manner, isolating problems at one level from problems at the other two, and focusing on only one stage of the cycle at a time. Reality is too messy and complicated to permit such a “surgical” approach. Efforts to build capacity in IAs may well, as a practical matter, end up spilling across all three areas. But given the scarcity of resources, and the need to concentrate them where they are likely to have the greatest effect, it is useful to have an analytical basis for concentrating efforts in one of the three areas. The model of the accountability cycle offers a basis for making the necessary choices.

Viewing IAs through the framework of the accountability cycle also helps to focus attention on appropriate kinds of interventions within priority areas. For example, if the binding constraint to effective performance of a given IA was found to be at the level of *inputs*, this would suggest a need to analyze and address questions related to some combination of the quantity, quality, timeliness and relevance of information flowing to the IA.

If the binding constraint was found to be at the level of *outputs*, then a different approach would be indicated – one that focused on analyzing and understanding the capacity of the IA to receive and analyze information, and to transform the analysis into coherent demands that are then placed upon the executive.

If the binding constraint was found to be at the level of *outcomes*, then one would be compelled to focus on the *nature of the relationship* between the IA and the executive.

### **Contextual Factors**

The findings and conclusions that emerge from an analysis of the accountability cycle need to be refined by understanding the related contextual factors at the national level.

IAs do not operate in a vacuum. At every stage of the accountability cycle an IA’s capacity to interact effectively with the executive is affected by social, political and economic factors that are outside the IAs’ control (see figure 3), but

which must be taken into account when formulating any strategy for building its capacity. Contextual factors form an integral part of the explanation of why an IA functions or fails to function, and provide guideposts to effective remedial strategies.

Examples of key contextual factors include:

- attitudes of political leaders with respect to corruption, accountability and transparency
- the nature of civil society and civic attitudes
- the perceived legitimacy of the state
- history of relations between citizens and the state
- the political and electoral environment
- social tensions based on ethnic, regional or class distinctions
- the structure of the economy
- rules and practices related to public information
- management practices in the public service.

The critical operational message with respect to contextual factors surrounding IAs is two-fold:

*First*, IAs are only one part (albeit an important part) of the battle against corruption. It cannot be assumed that getting a country's IAs "right" will, alone, amount to a cure-all for public sector corruption.

*Second*, the effort to get IAs "right" must look beyond the inner workings of the IA, and beyond the immediate relationship between the IA and the executive, to the broader environmental factors mediating the impact of IAs on the executive.<sup>18</sup>

A helpful model for understanding the relationship of accountability to corruption within a broader context of contextual factors is Robert Klitgaard's well-known heuristic formula:

***Corruption = Monopoly + Discretion - Accountability***<sup>19</sup>

Public sector corruption, the formula suggests, can to a large extent be explained by two positive independent

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<sup>18</sup> A similar rationale is presented by Dye and Stapenhurst (1998), which describes efforts to combat corruption as being supported by eight "pillars of integrity".

<sup>19</sup> Klitgaard (1988), p. 75.

variables—monopoly and discretion—and one negative one—accountability.

One could take the example of a government agency with a monopoly on the issuance of business licenses to entrepreneurs. Assume that there are few detailed regulations governing this activity, and that copies of whatever regulations may exist are not easily obtained. The government agency therefore has not only monopoly power, but is also free to exercise considerable discretion. The combination of monopoly and discretion puts the agency in a strong position with respect to the license applicants. The latter would be reluctant to resist demands for bribes in return for licenses because they have nowhere else to go, and because they are unsure of their “rights” (given that licensing regulations are not well known).

Klitgaard’s model implies three possible remedial approaches: (i) address the monopoly problem by empowering one or more other public agencies to issue the same licenses; (ii) address the discretion problem by, for example, widely publishing the regulations, or by instituting automatic issuance of licenses upon completion of a simple form and payment of a fee; and (iii) create accountability pressure on the agency by intensifying oversight of its activities.

The Klitgaard formula illustrates how the impact of an IA on corruption depends upon three inter-related but distinct sets of circumstances (see figure 5):

- the IA itself—its internal strengths and weaknesses and its immediate relationship with the executive
- the strength of contextual factors contributing to a lack of accountability and corruption, *against which* the IA is a counterweight
- the degree to which the contextual factors are subject to change.

The accountability cycle provides a basis for inquiring into the first bullet point, which describes our core concern. The second and third bullet points must be addressed by understanding the contextual factors relevant to the IA. In the simple example cited here, the key contextual factors have to do with the structure of public service delivery (a monopoly over the provision of a service) and the management of the public service (rules and practices that allow relatively low

level officials a high degree of discretion, and which place a low value on transparency). The presence of these factors places limits on what an IA might be able to accomplish.

Apart from providing a sample list of contextual factors (p. 10 and fig. 4), this paper does not provide an explicit model for incorporating contextual factors into the analysis. The accountability cycle is the primary analytical tool in our model. It points the way to the kinds of contextual questions that need to be asked; the rest depends on the judgment, skill and common sense of the researcher.

At this point in the discussion, it is useful to highlight two critical contextual factors that emerge from the literature and from lessons-learned over the past 15 years or so of governance-related programming supported by development assistance agencies. These two factors are: (i) government attitudes toward accountability, corruption and transparency; and (ii) the role played by civil society in creating demand for accountability.

### ***Government Attitudes Toward Accountability***

Within the context of the accountability cycle, we argued that information was the primary binding constraint to the effective functioning of IAs. Within the broader contextual universe, *we would argue that absence of firm support and strong leadership from the bureaucratic and political elite on matters of accountability and corruption is a binding constraint to the effective functioning of IAs.*

Horizontal accountability, by its very nature will not and cannot happen unless the government allows it to happen.

By legal necessity, all paths of institutional creation pass through the offices of top state officials and, in this sense, accountability-promoting reforms cannot come from anywhere else than 'from above'. There is no way to ignore or bypass the centers of state power. Unless they consent to institutionalize 'self-restraint,' the road to horizontal accountability is blocked.<sup>20</sup>

Numerous case studies and analyses of governance-related reforms supported by development agencies have arrived at similar conclusions.<sup>21</sup>

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<sup>20</sup> Schedler (1999b), p. 339.

<sup>21</sup> See for example, Schacter (2000), which includes references to other studies.

For the purposes of this paper, the operationally-oriented conclusion is that an absence of sufficient political/administrative commitment to accountability, together with insufficient availability of information regarding the activities of the executive (see p. 8) are the two primary constraints to the effective operation of IAs.<sup>22</sup> Strategies that fail to address either one of these factors will not produce effective IAs and will have no significant impact upon corruption.

### **Civil Society**

In situations where IAs are highly dysfunctional, it is naive to think that the political/administrative élite can be counted upon to initiate reform. It is in such situations that the nexus of horizontal and vertical accountability (see p. 3) becomes critically important. As the immediately preceding paragraphs suggest, if horizontal accountability relationships are not working, it is undoubtedly because those who hold power want it that way. "Somebody has to kick the status quo from its point of equilibrium."<sup>23</sup> In cases where the political élite is unlikely to act, and where the influence of international actors is circumscribed, that "somebody" may well be civil society. The degree to which civil society is able to articulate demands related to accountability and honest government, mobilize support and communicate its demands to government is likely to have an important impact on strengthening the position of IAs with respect to the executive.<sup>24</sup>

### **Performance Indicators**

The preceding analytical framework attempted to provide an organized set of concepts to aid in understanding and evaluating the performance of IAs with respect to public sector corruption. The framework ought to provide a basis for

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<sup>22</sup> The two are of course closely linked. Weak political commitment to accountability is often the reason why the executive refuses to disclose information about itself.

<sup>23</sup> Schedler (1999b), p. 347.

<sup>24</sup> Tender (1997) provides a recent compelling example of civil society's impact on a government's approach to accountability. She attributes to civil society activism a large part of the rapid reform of one of Brazil's most corrupt and unaccountable state administrations. See also World Bank (1998), pp. 25, 116.



developing an analysis of an IA which would include a reliable overview of its strengths and weaknesses, and of obstacles (internal and external) to improved performance. Such an analysis would in turn be the basis for a prioritized program of action for building the IA's capacity.

In addition to being asked to develop this framework, I was invited by the World Bank to go a step further and propose a set of qualitative and quantitative indicators for measuring the performance of IAs with respect to corruption. Lists of possible indicators, or areas where indicators might be developed, are found in annex 1.

For the reasons presented below, I have developed this list of indicators with some hesitation. They are presented mainly as a basis for further thought and research, rather than as an attempt at a definitive list. The list borrows heavily from others who have already devoted effort to the development of various governance-related indicators.<sup>25</sup>

### ***Challenges Related to Performance Indicators for IAs***

The analytical framework and the performance indicators are meant to be complementary. The analytical framework provides concepts around which to build an analytical "story-line" for a set of IAs. These core concepts are sufficiently well-defined to produce a consistent analytical approach across different IAs (and different countries) but still leave the requisite room for local context and the researcher's judgment.

The point of performance indicators, on the other hand, is to overlay on a necessarily "fuzzy" analytical approach, a precise set of tools for measuring progress. In other words, having analyzed the problem and proposed a plan for addressing it, how would we know, exactly, when we had achieved success? How would we know (a prior question, and perhaps one that is more easily answered) when the conditions were in place that were likely to lead to eventual success?

Performance indicators are meant to help answer these kinds of questions. They are landmarks telling us either that we have reached our destination, or (if that cannot be determined) that we are heading in the right direction, at a

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<sup>25</sup> Sources include USAID (1998), Dye and Stapenhurst (1998), World Bank (1997b), Stevens (1990), Makanda (1994), OECD (1999), OECD (1998).

satisfactory speed. Unlike the components of the analytical framework, performance indicators are not, by their nature, meant to be fuzzy. One either hits a landmark or misses it (and if one misses it, one wants to know by how much). Moreover, performance indicators, if they are to be useful, have to be *useable*. That means that the connection between them and the underlying issues should be clear, and that the data-gathering required to support the indicators should not be administratively or financially onerous.

For this reason, developing performance indicators for IAs in relation to corruption is from the outset a hazardous (some would say foolhardy) task. On the one hand (referring back to the model of the accountability cycle) we do have a clear picture of what “successful” performance looks like for an IA. “Success” is when an IA compels some part of the executive to *respond* appropriately to it by explaining and justifying its actions, and taking corrective actions where necessary.

But on the other hand, when one tries to reduce this picture of success to the language of meaningful, measurable and useable performance indicators, serious problems arise. To begin with, the ultimate phenomenon being measured—the “appropriate response” by the executive to an IA—may be a contentious question of judgment. Suppose, for example, that the executive responds to findings of corruption by introducing laws or regulations covering certain behaviors or processes. Is that appropriate? What if the laws and regulations are not properly enforced? Should the government have fired people as well? Should it have launched criminal proceedings? These important questions are not easily handled in the context of an indicator-based performance framework.

Moreover, even if there was agreement on the description of an “appropriate” response, questions of attribution would arise. Given that the IA is only one among many factors affecting the behavior of the executive, to what extent can one attribute the executive’s response to the IA’s action (or conversely, to what extent can one attribute the executive’s failure to respond to some failing on the part of the IA)?

This is not to say that one should not make an attempt at performance measurement in this area. Imperfect information, opaque or complex causal relationships, and the inevitable need for subjective interpretation pose difficulties for virtually all forms of performance measurement in the public

sector<sup>26</sup>. The measurement task is feasible, but must be approached with recognition that while performance indicators may complement one's understanding of IAs in relation to corruption, they will only have meaning when incorporated into a larger picture that allows for open-ended description, analysis and judgment. Understanding the performance of IAs, and their interaction with government is to a large degree a matter of history, local context, and the observer's own experience and tacit knowledge. Albert Einstein is reputed to have said that "not everything that counts can be counted, and not everything that can be counted counts." This is as true of the performance of IAs as it is of any other phenomenon!

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<sup>26</sup> Schacter (1999).

## **Annex 1: Performance Indicators Related to Institutions of Accountability**

As indicated in the main report (p. 14), the following is offered as a basis for further thought and research. It is not intended to be a definitive list. It provides an idea of the range of indicators, or measurement areas, from which one might choose in seeking to develop a reliable, practical and reasonably comprehensive list of performance indicators. Final decisions would depend upon a diverse range of issues, including the IA in question, local circumstances, available resources, time constraints, etc. Further research and analysis—beyond the resources available for this paper—would be required in order to develop a more refined list of options.

The kind of data and data gathering required to support these indicators varies widely, as would the cost of establishing and maintaining the indicators. Some of the indicators involve answers to simple “yes/no” questions. Others involve simple, direct quantitative measures, while other require the development of scale or index data. Some of the indicators are qualitative.

Data gathering techniques may include survey questionnaires, open-ended interviews, key informant interviews, expert panel opinions, expert observation, desk research or file reviews. As noted (p. 14), most of these indicators are drawn from the work of others.

### Indicators related to information made available to institutions of accountability by the executive

- % of citizens who believe they have adequate access to public information
- % of journalists who believe government is providing them with adequate access to information
- % of NGOs that say they can obtain needed information from key public agencies
- % of legislators and staff who say they are able to obtain information when they need it
- existence of laws and regulations requiring access to information
- % of public agencies providing full information to public about services they are required to deliver
- timely availability to legislature, media, public of government budgets
- timely availability to legislature, media, public of public expenditure reports

*Indicators related to civil society as an institution of accountability*

- laws supporting freedom of speech and association
- number of NGOs advocating for accountability, or against corruption
- number of NGOs with specialized expertise and capacity re reporting on corruption
- number of NGOs showing improvement in their capacity to advocate for issues related to accountability, transparency and corruption
- number of public policies changed consistent with NGO advocacy
- perception of NGOs/others of government's willingness to engage in dialogue on accountability, corruption and other matters of public concern
- % of citizens with civic knowledge
- % of citizens exhibiting democratic values
- examples of government decisions taken as a consequence of pressures from civic groups

*Indicators related to the news media as an institution of accountability*

- percentage of population that trusts available news sources
- number of legal actions against media organizations for criticizing government
- number of violent incidents targeting journalists
- content analysis of quality of news media reporting on issues related to accountability and corruption

*Indicators related to audit agencies as institutions of accountability*

- existence of a clear auditing mandate enshrined in legislation for the Supreme Audit Institution (SAI)
- role of the SAI included in the national constitution
- protection of the SAI's independence by way of legislation or strong tradition
- direct reporting relationship by the head of the SAI to the legislature, without political interference
- SAI has power to determine which audits will be done and how they will be done
- SAI has freedom to determine how audit findings will be reported
- SAI has power of unrestricted access to information it needs to do its audit work
- SAI has an adequate level of funding (e.g. for office space, staff, communications facilities, investigation and monitoring activities)

- SAI has adequate level of administrative capacity (e.g. number and level of staff, equipment and materials, internal management structures and practices)
- percentage of government budget (or of government programs) audited in a financial year
- percentage or number of cases of breaches of laws, regulations, procedures etc. being investigated fully, fairly and transparently, through to enforcement
- Supreme Audit Institution (SAI) reports are easily available to members of the public or the news media

Indicators related to “audit-like” agencies as institutions of accountability

- there is an independent inspector-general’s office that regularly monitors public contracting and procurement practices
- there is an independent ethics office that monitors and implements a formal public sector code of ethics
- there is an independent anti-corruption agency to detect breaches of laws and regulations related to public sector corruption
- “audit-like” agencies have an adequate level of funding (e.g. for office space, staff, communications facilities, investigation and monitoring activities)
- “audit-like” agencies have an adequate level of administrative capacity (e.g. number and level of staff, equipment and materials, internal management structures and practices)
- percentage or number of cases of breaches of laws, regulations, procedures etc. being investigated fully, fairly and transparently, through to enforcement

Indicators related to the judiciary as an institution of accountability

- number of criminal cases involving political, economic and institutional elites
- wide availability of written rules, regulations, procedures, for carrying out functions of the courts
- percentage of appointments to the bench, or promotions, based on merit criteria
- degree of security of tenure within the judicial sector
- degree of independence of the judiciary from the legislature and the executive
- extent to which judicial rulings are reliably enforced
- judicial salary as a percentage of what “comparable” professionals earn in private sector

- presence of an internal disciplinary office in judicial sector

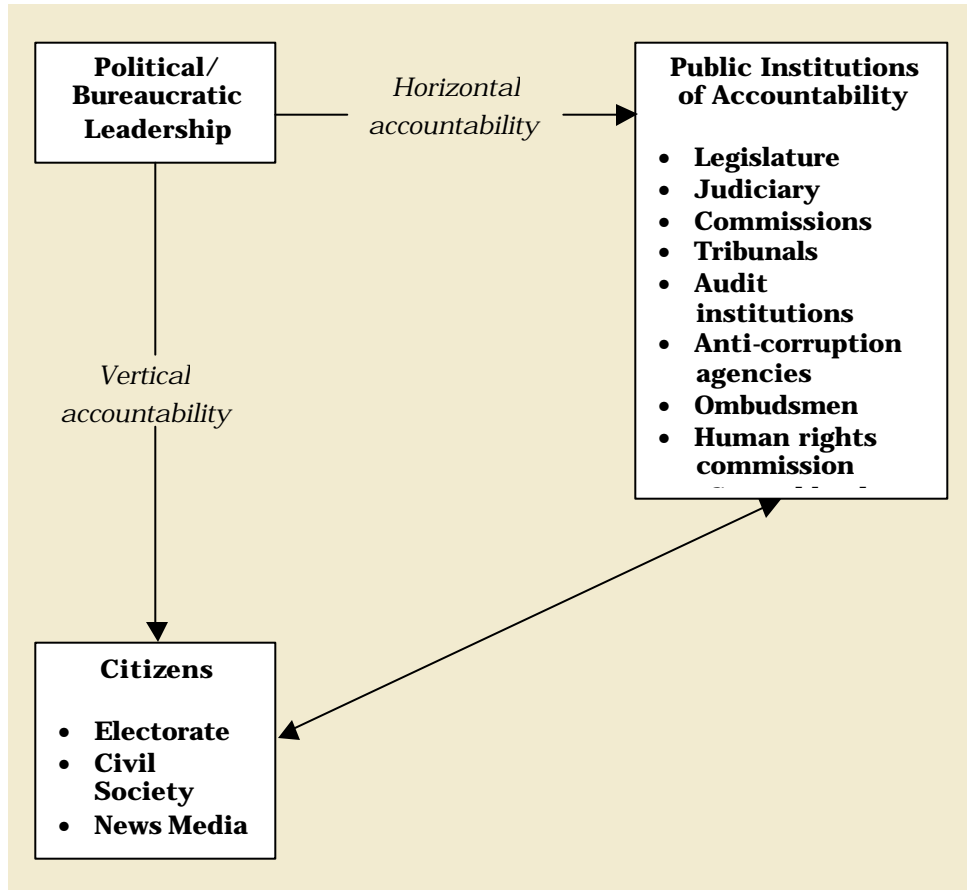
Indicators related to the legislature as an institution of accountability

- index of effectiveness of legislative oversight of the executive
- index of legislative committee oversight of executive activities
- index of quality of legislative processes
- presence of an active Public Accounts Committee and/or Finance Committee (or similar body) that focuses on oversight of public financial management
- number of staff per legislator or per committee
- adequate process for legislative review of the budget
- level of confidence among legislators that legislature has the capacity to perform its function, act as an independent body
- level of confidence among citizens that legislature acts as a check against the executive
- house rules permit equitable participation by opposition parties
- opposition members given resources (office, staff, etc.) comparable to ruling party

General Indicators

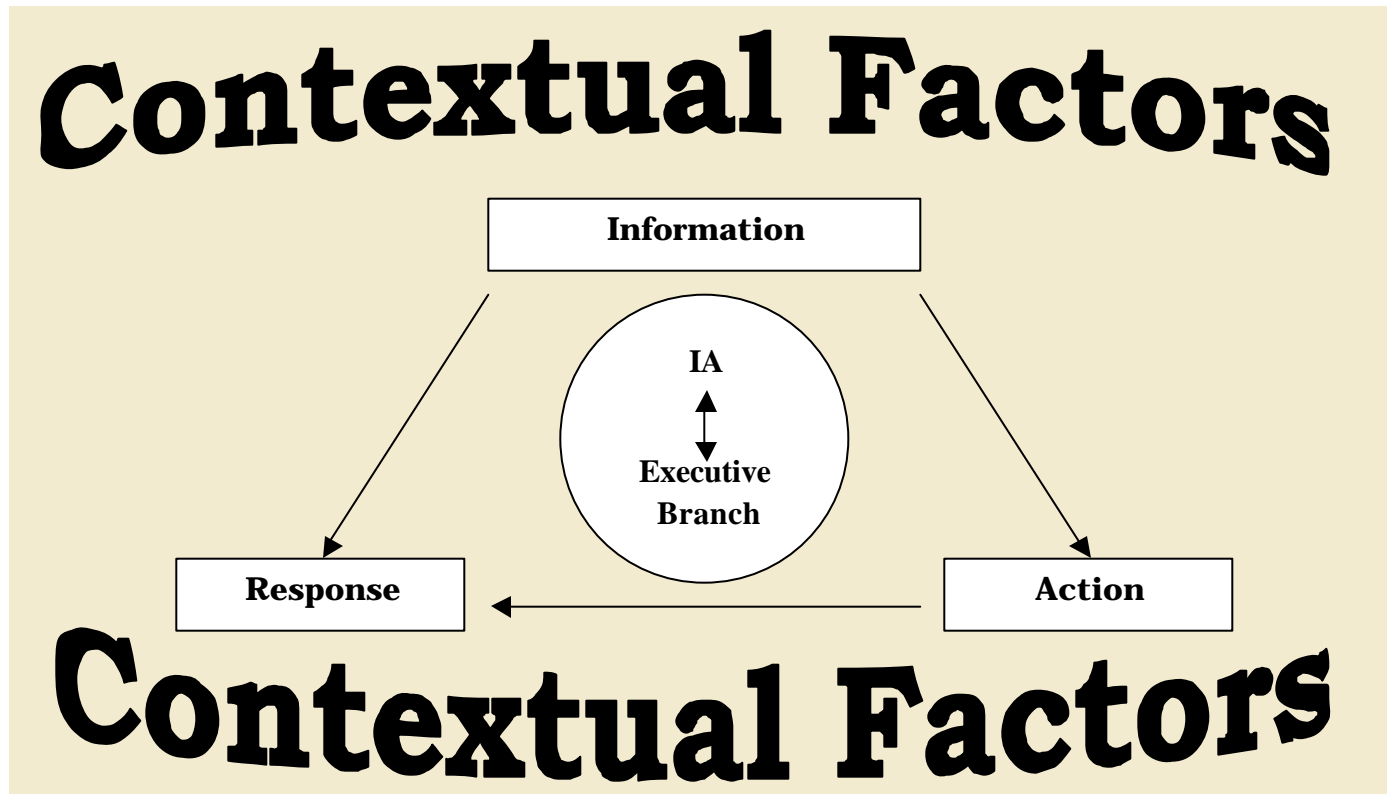
- is there a code of conduct re ethical behavior for politicians and public servants? is it adequate? is it well known? is it well enforced?
- public perceptions of corruption in the delivery or provision of selected government services
- private-sector perceptions of public-sector corruption
- percentage of citizens who show confidence in government
- percentage of citizens who feel government is addressing their priorities

**Figure 1: Horizontal and Vertical Accountability**

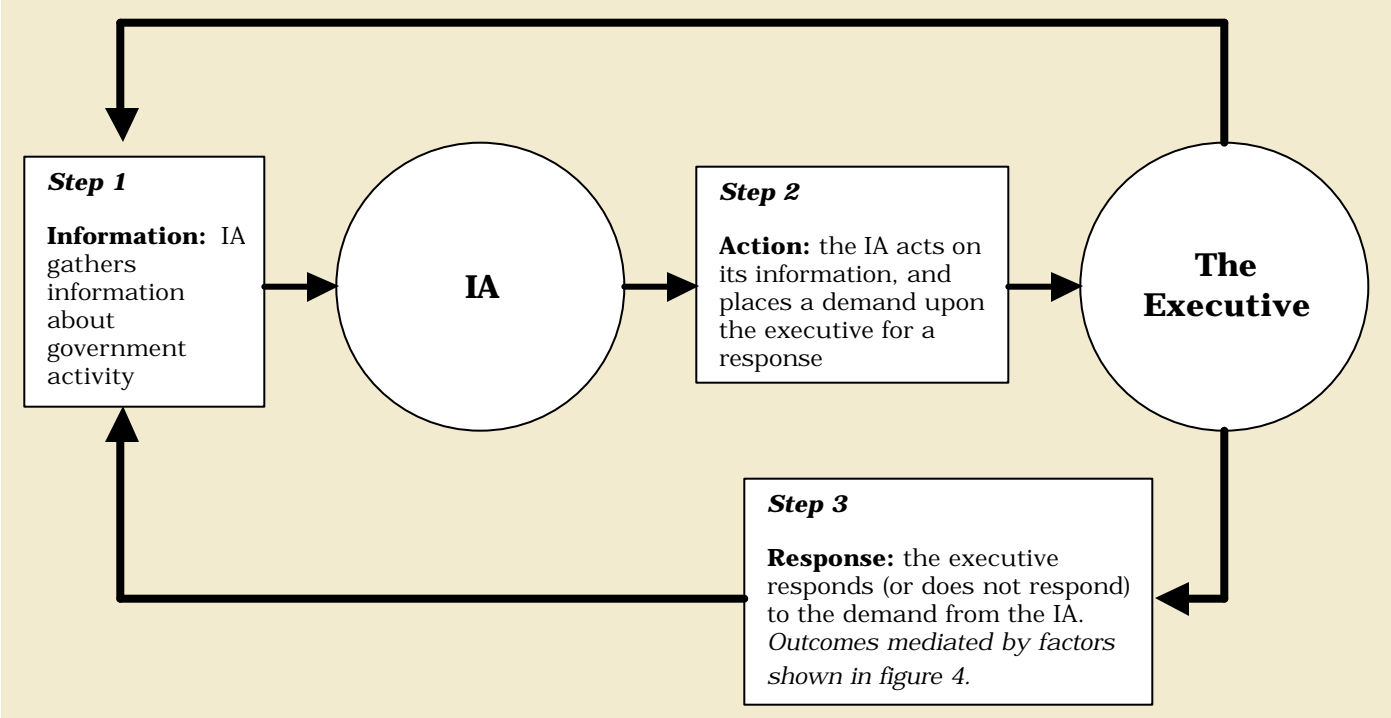




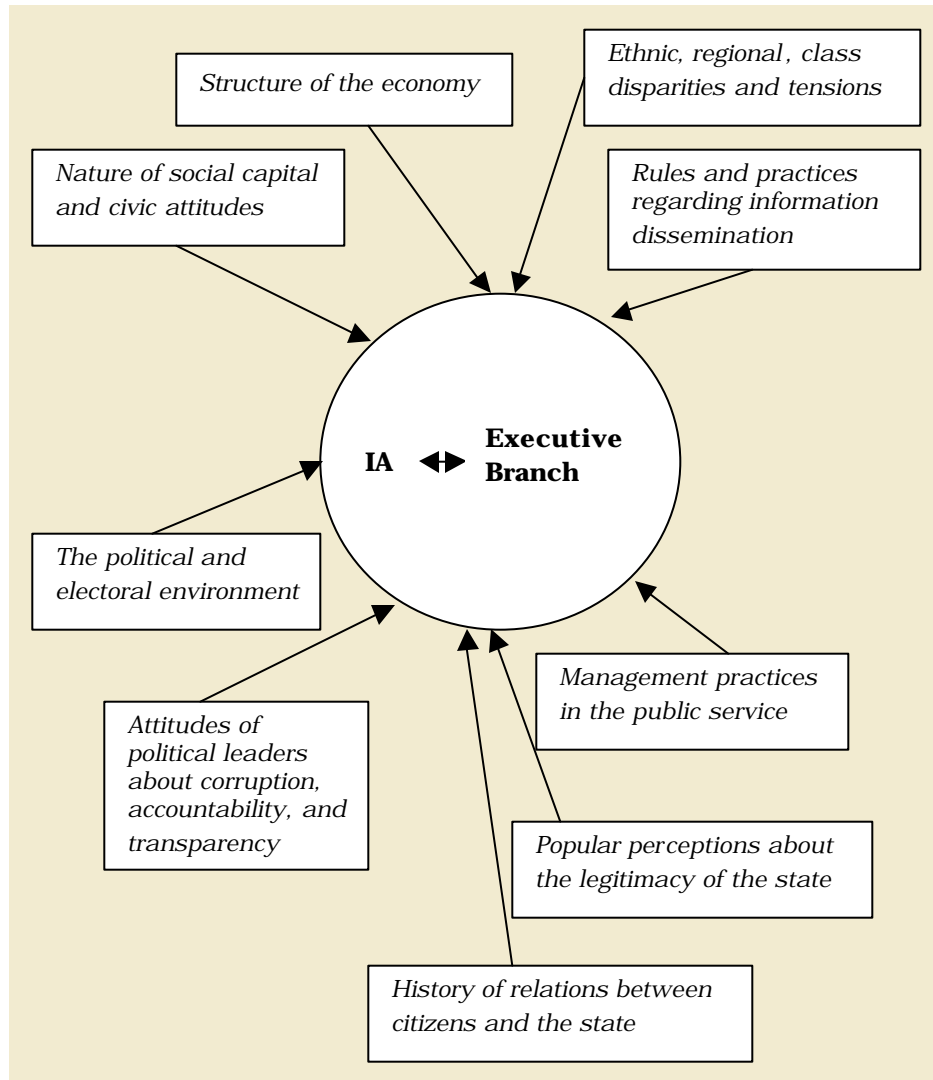
**Figure 2: The Analytical Model: Accountability Cycle Embedded in Contextual Factors**



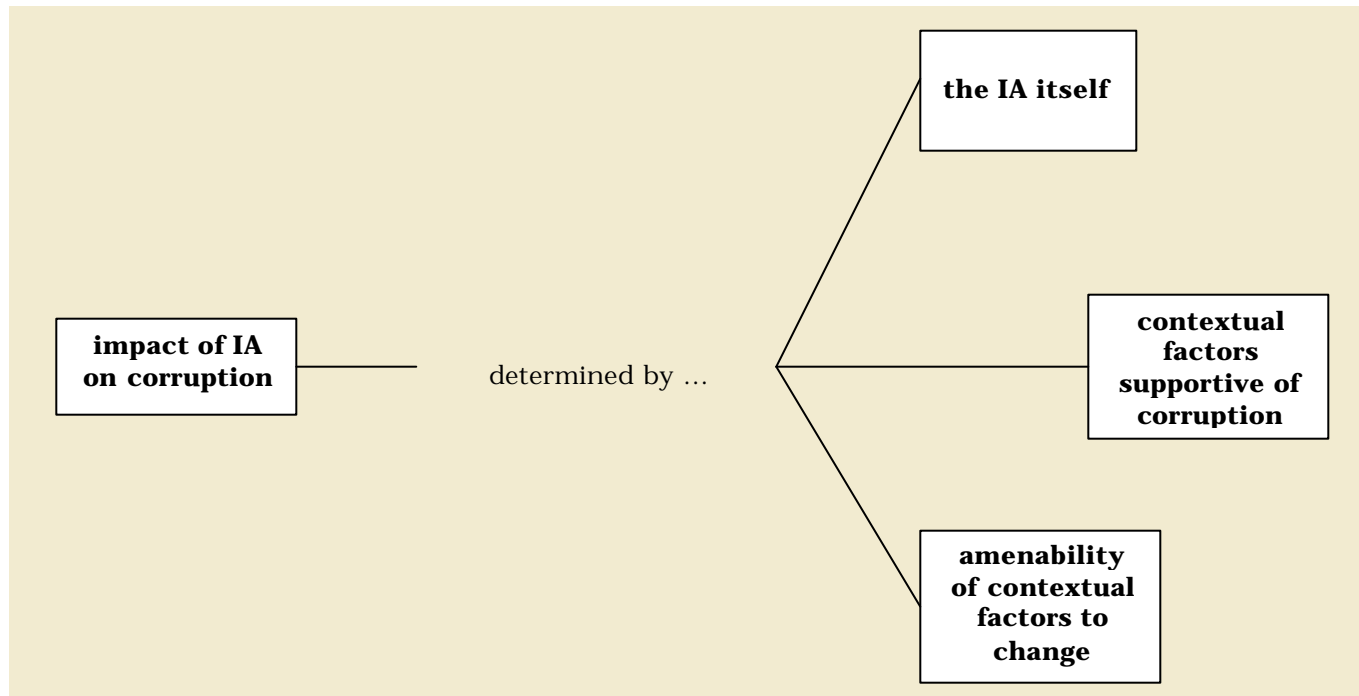
**Figure 3: The “Accountability Cycle”: Model of the Relationship Between an IA and the Executive**



**Figure 4: Some Contextual Factors Affecting the Accountability Cycle**



**Figure 5: Multiple Factors Affecting Impact of IA on Corruption**



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