

Public Spending for Poverty Reduction

A. Fozzard, M. Holmes, J. Klugman, K. Withers

Outline

Summary

1. Introduction

2. An Overview of the Budget System

- 2.1. Understanding the Budget Process
- 2.2. Budget: Coverage, Structure, and Coordination
- 2.3. Key Agents

3. Assessing Spending Options

- 3.1. Determining the Rationale for Public Intervention
- 3.2. Deciding on an Appropriate Instrument
- 3.3. Evaluating Spending Options
- 3.4. Assessing Options in the Short Term

4. Improving Public Finance Management

- 4.1. Ensuring Better Resource Planning: The Role of MTEFs
- 4.2. Improving Transparency and Strengthening Accounting and Auditing
- 4.3. Focusing on Performance
- 4.4. Creating Awareness of Costs
- 4.5. Appropriate Balance between Capital, Salary and Operations, Maintenance
- 4.6. Integrating External Assistance
- 4.7. Encouraging Participation in the Budget Process

Resources

References

Technical Notes

- TN 1: Expenditure Classifications
- TN 2: International Benchmarks for Social Sector Spending
- TN 3: Public Expenditure Tracking Surveys
- TN 4: Tax Incidence Analysis
- TN 5: Spending Incidence Analysis
- TN 6: Average and Marginal Benefit Incidence Analysis

Case Studies

- CS 1: Implementation of MTEF in Ghana
- CS 2: Implementation of MTEF in Uganda

For updates, translated versions (French, Spanish, Russian and Portuguese) please check : <http://www.worldbank.org/poverty/strategies/sourcons.htm>

Summary

In many countries, the practice of public expenditure management is an obstacle to achievement of poverty reduction objectives.. Fragmented budgets and an exclusive focus on inputs are among the factors that have undermined the ability of budget systems to discipline policy making and to facilitate performance feedback that would improve outcomes.

This chapter outlines good practices in budgeting and public financial management in the context of implementing affordable pro-poor policies. It considers the influence of institutional arrangements on public spending outcomes at the national, sector, and local levels, and the impact of budget design on the distributional and economic impact of public spending. The discussion also highlights possible solutions to common challenges faced by managers, budget analysts, and ministers when devising ways to finance policies, programs, and service delivery for reducing poverty. It provides some guidance on getting started on key issues in the context of preparing a poverty reduction strategy (PRS).

The chapter is organized around three themes in public financial management:

- Understanding the budget system—including the actors involved, associated political processes, and budget coverage and structure;
- How to rigorously assess alternative spending options, and reevaluate the role of government in service delivery at different levels; and
- Improving resource management and public sector performance.

Achieving poverty reduction goals will require adapting domestic budgeting and financial management systems to the needs of the PRS. Countries are at different stages in this process, and capacity building could take time. Developing a system to compile reliable fiscal data is obviously important. More generally, strengthening the country database on poverty and social indicators is critical to building national capacity to determine appropriate policies for poverty reduction and monitoring their impact over time (see the **Monitoring and Evaluation**, and **Building Statistical Capacity** chapters).

A number of measures are particularly important when developing and implementing poverty reduction strategies, including:

- **Improving the quality of expenditure analysis.** While the quality of analysis will be constrained by the information and analytical capacity available, significant improvements can be made in the short term by asking the right questions at key stages in the budget cycle. Good poverty diagnostics—both quantitative and qualitative—are essential (see **Poverty Data and Measurement** chapter). In general, it is most important that decision-makers at all levels adopt a critical and questioning attitude toward expenditure decisions. Enhancing analytical capacity in agencies will have limited impact if decision-makers (i) do not learn to ask the right questions and (ii) are unwilling to act on the analysis.
- **Developing a medium term perspective to budget making.** (A medium term perspective, like a medium term expenditure framework (MTEF) can enhance the realism of a PRS. Where a medium term perspective has yet to be introduced, this is a priority. Where a MTEF is already in place, two key challenges exist: to ensure adequate linkages to instruments at the policy (including the PRS) and operational (budget) level; and to use the MTEF as a tool for policy debate inside and outside the government. Budget decisions should be driven by policy priorities but policy choices need to be disciplined by resource and implementation realities over the medium term.

- **Complying with minimum standards of public financial management.** Strengthening public financial management will ensure scarce resources are being used to achieve priority goals. Over the medium term, it will be necessary to improve accounting systems and procedures, along with the associated skills base. Developing a minimum “expectations benchmark” against which national performance in public financial management may be tracked can play a key role. The benchmark should include performance indicators for: timely budget preparation, reporting on budget execution, accounting accuracy and the timeliness of, and follow up on, audit findings (see Section 4.2).
- **Focusing on performance.** While developing performance management systems is a long-term task, in the short-run it will be important to devise appropriate interim measures to monitor progress on poverty reduction. A PRSP needs to map out clear targets for poverty outcomes and intermediate indicators of progress. Institutional and budget incentives and sanctions should ensure the goals of agencies, institutions, and individuals are aligned with those set out in the PRS.
- **Promoting broad participation.** Opening up budget systems to public scrutiny—by publishing information on budget formulation, budget execution, and public accounts—can have a significant impact on the quality of policy debate and the accountability of public agencies. Formal processes for facilitating public participation in the budget process can help to ensure that citizens play an active role in decision-making. The success of these initiatives will depend on the government’s commitment to an open participatory process. If the government prefers to be cautious, experimental initiatives can be tested in key sectors.

Successfully moving the budget system to support the development and ownership of poverty reduction strategies will require commitment and determination at every level of the system. There is a strong case for supporting those agencies that show a willingness to innovate and reform in order to meet national poverty reduction objectives. The active support of the Ministry of Finance is essential throughout the process, since it determines the incentive framework in which other agencies prepare their budgets.

This chapter does not analyze the substance of poverty reduction programs (for example, the types of programs that are most effective in addressing poverty reduction goals), since this is done in the sectoral and cross cutting chapters of the Sourcebook.

1. Introduction

This chapter analyzes the challenges inherent to—and best practices in—public expenditure management, with a particular focus on integrating poverty reduction strategy goals into budgeting systems and institutional practices. Budget systems and institutions influence outcomes through (i) their impact on aggregate fiscal policy, (ii) the particular policies and programs funded in the budget and (iii) the resources allocated to and the effectiveness of service delivery agencies.

Aggregate fiscal policy is ideally embedded in a macroeconomic framework that ensures economic stability and promotes economic growth. Setting an aggregate level of spending that is consistent with the country's overall macroeconomic goals and resource availability helps to promote stability and predictability in program financing over the medium term.

Aggregate and sector spending decisions of the cabinet, or Committee of Ministers, or equivalent decision-making forum at the center of government (we will call this body “the cabinet” throughout), should reflect the country's poverty reduction strategy, within the constraint of what is affordable over the medium term. Determining what is affordable requires significant technical analysis (see the **Macroeconomic Issues** chapter). The quality of the expenditure decisions made by the cabinet will depend, on the one hand, on the quality of policy and program analysis and the reliability of cost estimates and, on the other, on a budget system and process that places a premium on policy and program performance.

Even if budget allocations reflect poverty reduction priorities, the actual flow of resources to front line service delivery agencies determines the extent to which stated budget objectives are realized during budget execution. The flow of resources to front-line agencies can only be understood within the overall incentive framework of the budget process and the public sector as a whole. If the budget formulation process is not credible, or if hard budget constraints at the sector level are lacking, then that ad-hoc reallocations of fiscal resources are likely.

This chapter begins with an overview of the Budget system, to help users better understand the process, the players, and the importance of the coverage and structure of the budget. The next Section sets out a framework for setting budget priorities, from determining the rationale for public intervention, to evaluating alternative spending options. It ends with a short guide on how to get started on this process. The final section (4) addresses a series of issues critical to improved public financial management, from better planning and awareness about costs to integrating external assistance in the budget, and finally but not least, encourages participation in the budget process.

2. An Overview of the Budget System

This section highlights key institutional factors that influence decisions about the aggregate level and allocation of public spending across sectors and programs. It focuses on three aspects of the budget system:

- The budget process (Section 2.1)
- Coverage and structure of the budget (Section 2.2); and
- Key Agents (Section 2.3)

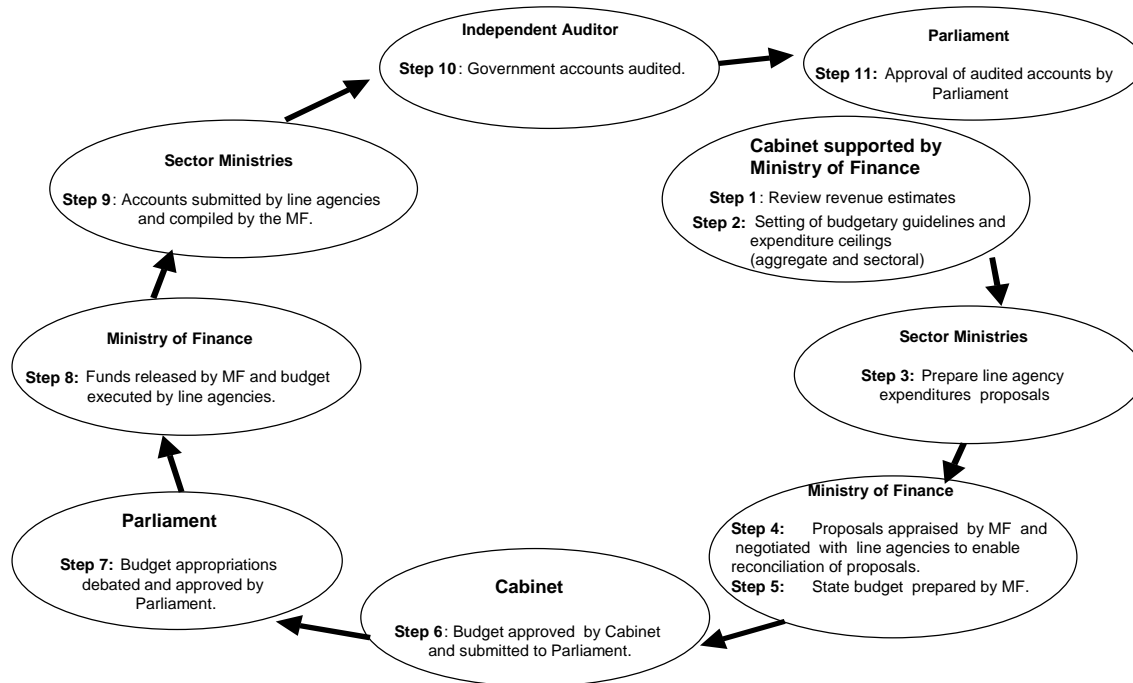
The intention is to provide analysts with a broad understanding of the potential constraints facing budgetary decision-makers, and strategies for overcoming these constraints. A questionnaire like the Public Expenditure Management diagnostic, may be used to guide the

analysis of institutional factors at the country level. (See list of Resources at the end of this chapter)

2.1 Understanding the Budget Process

The budget process can be portrayed as a cycle. An idealized version is shown in Figure 1.

Figure 1. The Budget Cycle



The critical steps in the budget cycle are worth examining in some detail, since they can present several challenges:

- **Setting aggregate spending limits**

A feasible and credible budget can be prepared only on the basis of accurate forecasts of economic growth and resource availability (see step 1 in Figure 1). Overly optimistic revenue projections cause serious problems for line agencies, since they will typically lead to mid-year cutbacks in spending or accumulation of arrears. If cutbacks become a regular feature of the budget process, the credibility of the budget is undermined, creating a web of perverse incentives for managers, line ministries, politicians and donors. For example, managers may overestimate discretionary expenditures to provide a cushion against anticipated cuts, or underestimate non-discretionary expenditure, such as salaries, which they know will be funded or bring forward expenditures in anticipation of cuts later in the budget year. Legislatures also often earmark expenditures to avoid cuts and donors sometimes encourage forms of earmarking to support their funding priorities.

If in-year adjustments are frequent, it will be important to periodically review variations between budget estimates and actual spending levels—at the aggregate and sectoral levels to determine how much the adjustments reflect persistent overestimates of economic growth and revenue,

technical problems in cost analysis, and discretionary reallocations during budget execution (see the **Governance** chapter for additional discussion).

One approach is to be conservative in allocating resources to sectors so that the sum of the sectoral allocations (including all statutory expenditures such as public debt interest payments) is less than the aggregate expenditure level. The unallocated funds would be treated by the Ministry of Finance as a planning reserve or a contingency reserve, and could be allocated according to clear rules if realized (see Box 1). It is important to ensure parliamentary control of decisions on the allocation of any planning reserves or contingency reserves. Another approach is to identify priority programs whose budgets will be protected from revenue shortfalls, particularly programs with direct linkages to the well being of the poor. However, the preferred solution is to address the “budget failure” by making the initial revenue estimates more reliable, and minimizing ad hoc reallocations during budget execution. As discussed below, external assistance should be explicitly taken into account when setting expenditure ceilings.

Box.1 Expenditure Reserves during Budget Preparation

A *planning reserve* is a sum (usually 1 or 2 percent of total government expenditure) that is not allocated in the budget guidelines. The minister of finance can later allocate this sum to new programs, or existing programs, above the amount allocated during budget negotiations.

A *contingency reserve* is a reserve for in-year expenditures above appropriations for handling genuine contingencies. It should be modest in size so as to encourage ministries to stay within their budget constraints. In practice, this reserve rarely exceeds 2 or 3 percent of total spending. It should be under the control of the Minister of Finance and access should be granted only under specific conditions.

Source: Potter and Diamond (1999) 24.

• **Setting sector spending limits**

It is not useful to begin the budget formulation process with centrally determined sector or agency spending limits if these ceilings lack credibility and will not be sustained over the course of budget execution. As discussed below, sector spending ceilings are more likely to be credible when they are derived from medium term cost estimates and robust revenue projections. These spending limits will reflect judgments on the nature and appropriateness of existing budgetary commitments. Examples of commitments include:

- *Statutory commitments* covering transfers to local government, earmarked revenues for special funds, and welfare and pension entitlements;
- *Contractual commitments* for the payment of personnel (and pension entitlements);
- *Debt servicing and amortization* and, in some cases, contracts for the delivery of goods and services that extend between budget periods;
- *Agreements* with bilateral and multilateral agencies for counterpart financing of projects and programs; and
- *Changes to sector policy* debated and approved by cabinet and parliament outside the context of a budget process which, for example, result in statutory commitments to increase service delivery levels or transfer entitlements.

Faced with these constraints, the government may initially take existing sector allocations as given in the short-run, and adjust these allocations upward or downward to reflect prevailing economic conditions and sector priorities. This would precede the setting of sector ceilings. In this case, individual ministers should be required to reprioritize and reallocate within their respective sectors in order to contribute to poverty reduction goals. However, the approach laid

out in section 3 argues that all major programs should be open to re-evaluation. In the short-run, one alternative is to undertake a rapid review of all policies and programs (a form of zero-base budgeting) with the aim of eliminating or cutting back funding for non-priority activities and reducing inefficiencies.

The scope for spending reallocation is larger in the medium-term. Budgets with an annual planning horizon tend to subordinate longer-term development priorities to immediate fiscal needs, and thus serve to reinforce the status quo. Similarly, proposed cuts in program spending levels require careful sequencing, sometimes over extended periods to avoid undue disruption. These concerns can best be addressed by introducing a multi-year perspective to budgeting and gradually developing a medium-term expenditure framework (MTEF) (see Section 4).

- **Preparing and analyzing line agency bids**

The detailed composition of sector expenditures is determined after line agency bids are prepared and analyzed (steps 3 and 4). Typically, line agencies will have limited time after the distribution of the budget guidelines and limits to prepare their bids. The allowed time may be insufficient for line agencies to consult with operational and regional departments regarding program costs and effectiveness, and with users regarding satisfaction. Hence, line agency budget departments will often take the previous year's budget as the base and request a percentage increase rather than budgeting on the basis of planned service levels and their cost estimates. Negotiations with the Ministry of Finance will also tend to focus on the increment, giving little consideration to the relevance and effectiveness of ongoing programs or the administrative overheads that make up the bulk of expenditures. To overcome these practices, line agencies would need to draw up strategic plans in advance so that decisions are not driven simply by the central budget timetable.

Stronger connections between operational plans and budgets can be developed when line agencies are provided with credible forward forecasts of spending limits. This allows departments to project program costs based on policy decisions (rather than request a percentage increase) and to adjust targets so that they are consistent with resource availability. The existence of a multi-year budget perspective allows the Ministry of Finance and the line agencies to budget and plan more effectively.

Introducing a multi-year budget that evolves over time into an MTEF does not end the need for annual budget formulation. The annual budget remains necessary in order to adjust policies and programs to reflect changing macroeconomic conditions and shifting priorities, and to incorporate learnings from their past performance.

- **Ensuring budget compliance**

Budget systems have to balance the need for flexibility to accommodate changing circumstances during budget execution against the need for adequate control to ensure that resources are used as intended by government and approved by parliament. Policy and program changes should be confined as far as possible to the budget formulation phase of the cycle (discussed above). While hard budget constraints must be maintained in order to discipline politicians and managers, some flexibility is usually built into the budget through contingency reserves and through permitting the movement of funds from one budget category to another under certain circumstances (see Box 1). Allowing the shift of budgetary funds between different administrative categories may facilitate expenditure switching toward priority activities at the sector level. However, the scope for such shifts is usually fixed by law. In most countries it is not possible to shift funds between the salary and non-salary recurrent budget;

nor between recurrent and investment expenditure. Under a more performance-oriented approach to budgeting, such restrictions would need to be reviewed.

Potential signs of compliance weakness include:

- Overspending on agreed limits at the agency level, diversion of resources from one department to support another, over-commitment of funds, and accumulation of arrears with suppliers;
- Restrictions on the flow of funds to the spending agencies rather than formal budget alterations when revenue falls below projections. If central managers then prioritize expenditures according to their own criteria—for example, cutting back on operational spending before head office—service delivery units will bear the brunt of cuts. This could subvert poverty reduction objectives

Combating these weaknesses will require that government accounting and monitoring systems provide timely information on the financial status of all line agencies during budget execution (step 9) and that the government's final accounts are audited by an independent agency in a timely manner (step 10). To be effective, independent audit should be supported by sanctions on unauthorized spending.

Adequate control of budget execution and improved cash management are essential to ensuring the budget is executed as originally intended. Where controls have traditionally been weak, it will be important to balance any increased flexibility with strong accountability mechanisms. Where controls have been overly tight, managers may be given greater discretion in using funds by providing broader appropriations and relying on ex-post controls to ensure that they have used resources efficiently and effectively, and in ways that are consistent with the government's strategic poverty reduction goals.

- **Providing adequate feedback on budget execution**

Ideally, the budget cycle includes a feedback loop in which ex-post monitoring and evaluation informs next year's budget development (linking steps 9 and 2). Actual expenditure levels combined with data on achievement of performance targets for service delivery and program performance can be used to appraise spending efficiency and output. Decision-makers can also identify areas in which controls on spending are too tight (or loose) and make the adjustments needed to improve the poverty impact of public programs.

If the Ministry of Finance's budget limits and proposals by line agencies are prepared without reference to actual expenditures and program impact, this will likely lead to an under-funding of certain categories of spending and a potential mismatch between planned and actual expenditures (if the previous year's spending deviated significantly from the budget allocation). The entire credibility of the budget may be undermined in this manner.

The scope for analyzing prior years' budget execution results may be constrained by lack of time for proper evaluation and/or by poor data availability. If data on actual expenditures is outdated (e.g. more than two years old), analysts will have to work with incomplete provisional estimates of expenditures at the start of the next budget preparation process. If accounting information is prepared only to verify compliance, it will lack the analytical content needed to support budget formulation and expenditure switching measures. The types of budget breakdowns that might be useful are listed in Box 2.

Box 2: Budget Classifications

Line Item Classification: Spending by object according to the categories used for administrative control, for instance: salaries, travel allowances, telephone, and office materials.

Administrative Classification: Spending by the organization responsible for the management of funds. The structure of administrative classification will vary from country to country, as will the number and administrative level of the budget holder.

Functional Classification: Government activities and spending according to their purpose, for instance: policing, defense, education, health, transportation and communication.

Economic Classification: Government financial operations according to their economic categories, distinguishing between: capital and current spending and revenues; subsidies; transfers from the state to families and other public institutions; interest payments; and financing operations. This classification is used in Government Financial Statistics prepared by the IMF.

Program Classification: Spending by program, (i.e. by sets of activities undertaken to meet the same goals). The program classification may correspond to a disaggregation of the administrative classification or may cross administrative units.

Territorial classification: Revenues and spending by the geographical area of impact (rural/urban; province, etc).

Source: Based on Schiavo-Campo and Tommasi (1998), Chapter 2.

The problems identified above can be best addressed by improving the timeliness and quality of data on budget execution and operating costs and by improving coordination between accounting departments and those responsible for budget formulation. Strengthening accounting and fiscal data collection systems is likely to be a long-term task (see chapter on **Statistical Capacity Building**). In the meantime, the information constraints facing decision makers can be alleviated by complementing routine monitoring information with tracking studies and periodic detailed studies of public expenditures (see **Technical Note 3**). See the **Monitoring and Evaluation** chapter for more discussion on the topic.

2.2 Budget: Coverage, Structure, and Coordination

The budget should provide information on all the resources available to public agencies, including external assistance. This will help decision-makers to adequately address spending imbalances and promote poverty reduction throughout budget preparation and execution. The budgetary information should allow analysis of the composition of spending within sectors and across spending categories in order to ensure consistency with poverty and efficiency concerns. As described below, however, many budget systems do not fulfill these criteria.

Covering all government financial operations

In principle, all government revenues and spending should be accounted before budget formulation. This allows the government to consider all the resources at its disposal when setting aggregate spending levels, making allocations, and deciding on how to reorient spending to better achieve its poverty reduction objectives.

The System of National Accounts (SNA) concept of general government (which is also accepted by the Government Finance Statistics (GFS) manual) includes the central government, all sub-national levels of government, social security institutions and autonomous non-profit government agencies. Where sub-national levels of government have constitutional authority for their own budget, this authority should be respected in the budget process. From a strategic

point of view, however, it is desirable to develop a comprehensive picture of the scope of general government revenues and expenditure.

In addition to accounting for state and local government, the budget must cover autonomous and semi-autonomous government agencies. Coverage should vary according to the type of the body. Autonomous public entities include rural road funds, and special development or social security funds. They will generally have their own legal supervisory structures and revenue sources. If this is the case, the state budget and accounts should only record the transfers between the two—outflows for subsidies and transfers on the spending side, and inflows from royalties or shared receipts on the revenue side. However, autonomous public bodies should also be required to divulge detailed information on their financial situation and performance in the interest of transparency and accountability and because these entities may be responsible for a large share of public spending at the local level. Hybrid organizations that are set up using earmarked receipts or revolving funds, and that are legally and financially autonomous of the state should be treated the same as other autonomous organizations. Transfers to and receipts from public non-financial corporations should be recorded under appropriate expenditure and revenue categories.

It should be noted that non-autonomous bodies that are run with own source funds are treated slightly differently from those bodies that lack such funding (the latter's expenditures and revenues are simply added into the state budget). For example, schools that retain user fees must submit a forecast of receipts to the central government. These receipts are included in the revenue side of the state budget—usually in a specific category of receipts that identifies them as retained. Gross expenditures, which include expenditures financed by user fees and by other funds from the education budget are also submitted to the budgetary authority.

Adequate budget coverage is often difficult for various reasons:

- Extra-budgetary funds from earmarked revenues, such as petrol taxes, may not be captured by the budget process due to the use of different reporting schedules and formats;
- Lack of transparent reporting and oversight arrangements for extra-budgetary funds as well as other revenue sources;
- Line agencies may fail to report revenues derived from sales of goods, user charges, and other levies (often because of concerns that there will be a corresponding reduction in their budget financing);
- Information on local government budgets and accounts may be of poor quality. Further, these may use differing reporting procedures and classifications; and
- External assistance may be accounted for outside the budget (see Box 3).

Box 3: Reasons external assistance may be missing from the budget:

- Donors may deal directly with line agencies. The donor and the beneficiary institution may then fail to provide the Ministry of Finance with information on disbursements and forward commitments.
- Line agencies may find it difficult to provide information on external financing due to different accounting classifications and payments in foreign currencies.
- Line agencies may be unwilling to divulge complete information on aid received since this may result in reduced domestic budget allocations for the sector.
- Line agencies may be reluctant to present the full cost of some high-cost spending items, such as technical assistance, since this may distort the overall picture of resource allocation within the sector.

Clearly, these problems can be overcome only through the concerted action of external partners and government. Several measures are suggested in Section 4.

Measures to improve budget coverage include: (a) developing a database of public entities which should include their sources of finance and areas of spending; (b) integrating all spending and revenues under the state budget unless there is a legitimate reason for extra-budgetary financial management; (c) minimizing fragmentation of fiscal planning and disbursement, including earmarking; and (d) designing transparent oversight mechanisms and standardized reporting systems for those areas of spending that remain off-budget. Improving the information about spending financed by external assistance is also key, and may be achieved only through the concerted action of donors and government.

Poverty funds are sometimes suggested as a method to have resources allocated to poverty reduction. A poorly functioning budget system is sometimes cited as a reason to circumvent the budget and establish a dedicated poverty fund. Such funds have taken one of two forms in practice and pose important questions for budgetary integrity and the appropriate longer term strategy to achieve good practice in expenditure management (see Box 4). Whereas virtual funds work through existing Government budget formulation, execution, and reporting systems, institutional funds are extra budgetary in nature.

Box 4. Poverty Funds

Two distinct types of poverty funds have been used by governments in the context of the PRSP and HIPC Initiative, known as virtual funds and institutional funds.

Accounting or virtual poverty funds are constructed for accounting purposes only. Program or expenditure items in the budget identified as poverty-reducing are tagged and monitored in overall budget implementation. Fund resources are held centrally in consolidated fund accounts or sub-accounts and are fully on-budget. Resource allocation occurs during the general budget process, within the general macroeconomic framework, allowing normal planning of medium term cost implications. Programs financed by poverty funds are implemented by line ministries, local governments or contracted out. Execution and annual audits of poverty fund accounts occur through normal government procedures, though some additional requirements such as civil society monitoring. Virtual poverty funds, like general public expenditure systems, should use sound classification systems and have timely reporting systems.

Uganda, for example, has established a Poverty Action Fund (PAF) as an accounting framework. PAF specifies poverty-reducing programs at the level of budgetary line items. These programs are identified in the accounting coding structure to enable automatic tracking, becoming a vehicle for relating incremental debt relief and donor resources to specific program expenditures.

Tanzania operated a Multilateral Debt Fund (MDF), established by the Nordic countries and the U.K., as a general government account in the Central Bank used for debt servicing to the multilaterals. The MDF is now being transformed into a Poverty Reduction Budget Support Fund to allocate HIPC assistance to central government budget PRSP-identified programs.

In Guyana, certain line items are tagged as poverty-reducing spending, based on administrative, economic, and highly aggregated functional classifications.

In contrast, *institutional poverty funds* are autonomous institutions where revenues are set aside in a separate account, with expenditures occurring outside a country's normal budget execution and reporting system, subject to different reporting and accountability standards.

Examples of institutional funds are road and pension funds. Arguments in favor of poverty-related institutional funds are: linking poverty-related work and HIPC debt-relief; satisfy donors' objectives of identifying financial resource flows and tracking project output, particularly when existing governmental program and financial management capacity is weak; and, in some cases, to empower local communities and increase donor and NGO involvement. Institutional funds may also be used to assure resources for operations (e.g. road maintenance)

However, there are important counter arguments. First, institutional funds do not ensure that additional resources are being allocated to poverty reduction. Because resources are fungible, earmarked assistance for poverty-reducing programs can be offset by reduced public spending in other parts of the government budget for related programs. Second, an institutional fund does not mean that sufficient resources are being committed to achieve PRS targets. Assistance channeled through such funds accounts for only a small share of both public revenue and spending. Third, creating institutional poverty funds would, in many cases, undermine the significant progress already achieved towards comprehensive budgets. Separate funds prevent an holistic view of resource allocation, especially when set up for a specific sector, and lead to enclave management of poverty-focused programs. If institutional funds have autonomous (financial and governance) structures, there is increased risk of both duplication in poverty reduction efforts and loss of control over financial resources. Diverting limited technical skills to create and manage these funds could aggravate problems of transparency and governance in the budget as a whole.

In countries where poverty-related institutional funds are used, these risks can be reduced if financing of the fund appears on budget. Funds should have their own bank accounts and be subject to adequate reporting requirements. Funds should also be held accountable to Parliament and subject to a dual audit.

Structuring budget information

The way in which budget information is presented is key. Where it is well-presented, it enables analysts to answer the following questions:

- **Accounting:** What is public money being spent on?
- **Monitoring:** Are public funds being disbursed and spent in a timely manner? Is it possible to monitor donor-funded spending?
- **Auditing:** Are we confident, based on an independent audit of government expenditures, that moneys have been spent consistently with the budget?
- **Outcome (and Output) Evaluation:** Are expenditures on key programs effective in reducing poverty or achieve other objectives? Are the projects being undertaken efficiently?

In practice, improvements are needed in the way budget information is presented, in order to facilitate meaningful analysis. At a minimum, the budget system should provide a classification of government expenditures by functional category as well as by administrative unit (see Technical Note 1). Ideally, budgets are disaggregated by programs or activities, to enable more sophisticated analysis and evaluation.

Improvements to the structure and quality of budget information can be undertaken on several fronts:

First, with respect to accounting, there may be a need to strengthen basic reporting systems, to enhance the agency-level capacity to provide data in a timely and accurate manner, and to extend coverage of budget information systems to include sub-national governments. However, in terms of sequencing, activities aimed at expanding government capacity to provide *new* information should be pursued only once existing budgetary information is consistent and relevant for fiscal management. Coverage can always be extended in the future, as information bases and analytical skills are further developed.

Second, there may be scope for better monitoring of spending by agencies, though this should not so detailed as to interfere with agencies' ability to deliver services efficiently and effectively. Excessive controls can provoke attempts by line agencies to develop extra-budgetary resources. Evidence suggests that there may be a trade-off between the detail of the classification used for control by central ministries--the more detailed the classification, the better is the administrative control—and the degree of flexibility given to fiscal managers in line ministries. Detailed line item classifications, for example, give managers little flexibility to swap funds from transport costs to the contracting of services. Greater autonomy over allocated resources should be complemented by arrangements to enhance accountability—ones that not only improve probity and stewardship in the use of budget resources but also enhance the quality of associated outputs and outcomes.

Third, better coordination, if not unification, of investment and recurrent budgets would be an important step forward for many countries, as explained in the next section.

Unifying Capital and Recurrent Budgets

Many countries have a dual budget structure in place – the recurrent budget and the investment budget. The recurrent budget is typically prepared by the Ministry of Finance, and presents spending on salaries, operations and maintenance (O & M). Also included are interest payments. The investment or development budget in principle presents one-off capital expenditures on projects and programs and in many countries is prepared by a separate Planning Ministry. In practice, the development budget may also include various expenditures on recurrent items that are paid for by donors so the dual budgets often do not in fact represent a neat separation of recurrent and capital budget items.

Dual budgets make it difficult to achieve resource allocations that are consistent with a government's development priorities and to deliver high-quality services at a reasonable cost. It is common for the government to finance capital expenditures without considering the medium-term recurrent needs of the capital investment. (See Table 1).

Ideally, the recurrent and capital budgets would be coordinated, if not merged, to enable coherent and strategic analysis of expenditure decisions. A unified budget can still distinguish between current and capital expenditures. Many governments keep the investment and recurrent budgets separate for appropriation, but ensure that they are considered as a unit during budget formulation and that they are managed by the same functional agencies at all levels.

Budget unification has broad managerial implications because projects (the basic managerial unit of the development budget) are not the appropriate unit for managing the unified budget. Often, a necessary step in this direction is to merge the Planning Commission and the Ministry of Finance. However this is generally not sufficient to bring about the required degree of integration between the recurrent and development budget in budget formulation.

Systemic integration of the development and recurrent budgets is more naturally developed under a MTEF which, by design, requires the medium term cost consequences of both types of spending to be estimated and budgeted for as part of an integrated process. – see Section 4.1 for more details.

In countries which choose to maintain dual budgets, it is nonetheless possible to identify incremental reforms that would improve the strategic value of the public investment program (PIP). The PIP generally has a multi-year (typically three year) horizon, and covers both domestic and donor financed projects. Table 1 outlines common weaknesses associated with PIPs, and possible reforms that could be undertaken even if merging of the dual budgets is not adopted.

Table 1. Common Weaknesses and Possible Reforms in PIPs

Common Weaknesses	Consequence	Possible Reforms
Screening procedures are not rigorously applied to donor projects.	<ul style="list-style-type: none"> Projects are included in the PIP solely for attracting donor funding. Non-priority and poorly formulated projects are included in the PIP. 	<ul style="list-style-type: none"> Develop clear strategic priorities. Increase scrutiny of the poverty impact of donor programs. Operations and maintenance (O&M) budgets should be prepared for new investment projects
The distinction between recurrent and investment spending is not clear-cut.	<ul style="list-style-type: none"> PIPs often include "projects" initially paid for by donors and now financed domestically. Recurrent expenditures are hidden in the PIP to avoid tight spending limits. 	As above.
The PIP and recurrent budgets use incompatible classification systems and different macroeconomic assumptions.	<ul style="list-style-type: none"> Investment decisions are not matched by the provision of adequate recurrent funds for so that, for example, new schools have no budgets for teachers or materials. 	<ul style="list-style-type: none"> Reclassify information using consistent definitions in both budgets. Require that the same macro assumptions be used.

The key elements needed for useful budget coverage and structure that were identified in Section 2.2 are equally relevant in situations where dual budgets are maintained.

2.3 Key Agents

All public institutions are involved, directly or indirectly, in the budget process. Civil society and non-government actors also play a key role in defining budgetary priorities. While it would be ideal to think of these institutions as members of a team that pursue common goals, it is more helpful to consider their divergent interests. In doing so, one can identify the constraints that a government is likely to face in reconciling competing priorities and in developing a coherent financial plan to support its poverty reduction goals. The key players are described below:

The Cabinet

The legitimacy and successful implementation of the budget depends on its ownership by the executive branch—especially the cabinet. The cabinet is the institution that enforces common or collective interests in pursuit of a country's poverty reduction objectives. The cabinet must endorse the government's fiscal policy stance, reconcile the conflicting demands of different line ministers, and manage the trade-offs between macroeconomic targets and the demand for public services. However, the cabinet's ability to determine appropriate spending levels and allocations depends on availability of information and analysis of needs and trade-offs, and whether there is sufficient time to assimilate the information that is available. The cabinet will tend to focus on approving major changes to allocated resources, particularly new or expanded programs and those areas that have been singled out for cuts. Responsibility for approving minor changes in spending structure is generally delegated to the Ministry of Finance or the respective line agency. Since aggregate spending levels need to be approved by the cabinet, it is here that pressure is most intense for the Ministry of Finance to take a more permissive stance vis-à-vis the cabinet. Most ministers tend to argue for increased spending in their sector, and it is unlikely that there will be widespread support for cuts in any area.

Cabinet-level decision-making is best supported by information that highlights the trade-offs between different spending levels and sectoral allocations. This allows decision-makers to assess spending levels and sectoral allocations in relation to the government's development and poverty reduction goals. Some form of a MTEF, by providing a longer-term perspective to budget formulation has been shown to be very helpful as well (see Section 4.1). Where there is a risk that long-term economic stability may be sacrificed due to intense pressure to increase spending levels in the short-term, more formal controls on spending may be considered. These may take the form of legislative limits on the level of aggregate spending, on public borrowing, and/or on the size of fiscal deficits.

The Ministry of Finance

Although the Ministry of Finance plays a central role in the budget process in all countries, its authority to intervene in sector spending decisions varies considerably. In some cases, spending decisions may be centralized within the Ministry of Finance; in others, the Ministry may take a more passive role.

The relationship between the Ministry of Finance and line agencies is strongly influenced by their conflicting priorities. Line agencies regard resources as a means to an end—the delivery of more and better quality services—and seek to maximize the resources at their disposal by inflating estimates of costs and lobbying for higher sector allocations. The Ministry of Finance, on the other hand, has to reconcile the demand for higher levels of sectoral spending with the need to control aggregate spending. Hence, it will tend to restrict spending levels and encourage greater efficiency in the use of public funds. Line agencies may resent Ministry of

Finance interference in their internal operations and may use a variety of tactics to maximize and protect their resource allocations (see below). Ministry of Finance personnel typically lack detailed information about actual costs and budgetary needs at the ministry level, and may resort to arbitrary cuts in allocations to particular categories of spending or across-the-board cuts.

The Ministry's internal organization may compound these problems. Where the recurrent and investment budgets are prepared by separate departments, it is difficult to analyze overall sectoral resource allocations in their different components. Similarly, where budget formulation and execution are separated organizationally, personnel responsible for approving alterations may not know the policies underlying budget allocations and therefore fail to consider them.

Closer cooperation between the Ministry of Finance and line agencies can be fostered by considering the relationship and trade-offs between resources and performance rather than focusing on resource volume alone (see Section 4.2). At the same time, the relationship between the Ministry of Finance and line agencies can be improved by clarifying the former's role as designer and keeper of the "rules of the game" for assuring sound budgetary and financial management overall as measured by the relationship at the ministry level between budget inputs, outputs and outcomes. This responsibility includes: monitoring performance consistent with these rules; providing a "second opinion" on policy design; acting as the principal financial adviser to the cabinet (costing of all policy proposals should be agreed with Ministry of Finance before they are submitted to the cabinet), and compiling the budget.

Line Agencies

Faced with the unenviable task of meeting demand for services with limited resources, line agencies could seek to maximize the resources at their disposal, regardless of broader welfare concerns. If this is the case, line agencies will tend to bid high. When sectoral budgets are cut back without adequately consulting the line agency or fully considering the output targets, the line agency may regard the resulting budget as unrealistic and will have little commitment to its limits. Another problem arises if unspent balances are clawed back by the Ministry of Finance at the end of the financial year. If this happens, line agencies will have little incentive to achieve efficiency savings. Instead, they will tend to fully spend their annual appropriations, possibly through a "spending spree" in the last quarter of the financial year.

As previously mentioned, centralizing the budget preparation process, without systematic consultation with operational departments and service delivery units can create problems. It can undermine operational effectiveness due to under-funding of services or create a mismatch between the demand for certain services and the targets developed by the center. It also weakens accountability. This situation is aggravated where appropriations are made at the broad agency level and managed centrally. Tracking studies in Tanzania and Uganda have shown that resources tend to get "stuck" at higher levels of the administrative hierarchy, hence preventing the operational departments from accessing the resources nominally allocated to them in the budget. Studies in other countries have also suggested that senior personnel in charge of institutions will serve their own interests (by allocating resources to administrative overheads and "perks") if they are not held accountable for the level and quality of services provided to the public or lack incentives to prioritize service delivery.

These concerns can be addressed by:

- Requiring sectors, ministries, and line agencies to develop strategic plans as inputs to the overall poverty reduction strategy;
- Giving line agencies, operational departments, and associated service delivery units greater autonomy and flexibility in using resources to meet poverty reduction objectives (within the operating budget constraint);
- Holding agency heads accountable for adherence to spending limits;
- Linking resources to performance targets, focusing attention on the services provided rather than on the institution's needs;
- Monitoring performance and rewarding personnel based on results that can be linked to poverty reduction and efficiency goals;
- Making public agencies directly accountable to users and citizens; and
- Promoting competition in the delivery of services, including private sector providers (see Section 4.2).

Parliament

A representative Parliament is a well-functioning democracy important in providing a clear indication of society's preferences. Parliament's enactment of the annual budget into law provides an opportunity for the people's representatives to scrutinize the government's budget proposal. They can ensure that the overall level of public spending and resource allocation is consistent with society's development goals and spending preferences. They can also assess the soundness of public-sector financial management. Unfortunately, parliamentary scrutiny may be inadequate for a number of reasons:

- The information provided by the Executive may not support meaningful analysis;
- Parliamentary representatives may lack the capacity and staff resources needed to undertake detailed analysis of the budget even where the information is available; and
- Parliamentary representatives may lack incentives to critically analyze the overall composition of spending. This can occur when legal procedures require Parliament to approve or reject the budget in its entirety without amendment. Incentives can be an issue even when parliamentary amendments are possible. For example, representatives may try to advance special interests on behalf of their electorates. This "pork barrel" approach will tend to increase aggregate spending and result in non-optimal resource allocations from an efficiency and equity point of view. If this approach is prevalent, the disorganized poor are likely to fare worse than influential lobby groups representing particular regions, industries, or other interests.

Improving the quality of information available to parliament and the wider public can promote a better understanding of the trade-offs between spending options, and partly overcome the shortcomings of parliamentary oversight functions. The government should provide adequate information on programs affecting the poor, as well as on tradeoffs at the macroeconomic and sectoral levels to Parliament and to the public more generally. The capacity of members of Parliament to critically review the budget may be enhanced through training opportunities specifically designed for parliamentarians, through access to relevant technical materials either on-line or in parliamentary libraries, as well as allowances for trained staff to help review and advise members. Measures can also be taken to improve decision makers' understanding of society's preferences, through broad consultative exercises (see Section 4.6).

Civil Society

Civil society institutions, such as local citizens' groups and parent-teacher organizations, can play an important role in the budget process. Their role includes:

- Influencing decision makers in setting priorities;
- Providing feedback on budget decisions;
- Sharing information (such as budgeted amounts and priorities) with their constituencies and community;
- Monitoring the achievement of intended outcomes at the local and national levels;
- Reporting suspected corruption; and
- Calling attention to inefficiency and waste at the local level.

In order for local groups to play these key roles in the budget process, it will be important for public officials in government and local political leaders to establish a regular system of communication to provide the public with clear and timely information about the budget process, budget allocations, and outcomes. A variety of communication channels are needed—including radio programming in local languages and printed materials that are easy to read and understand and that make minimal use of technical jargon (see chapter on **Participation**).

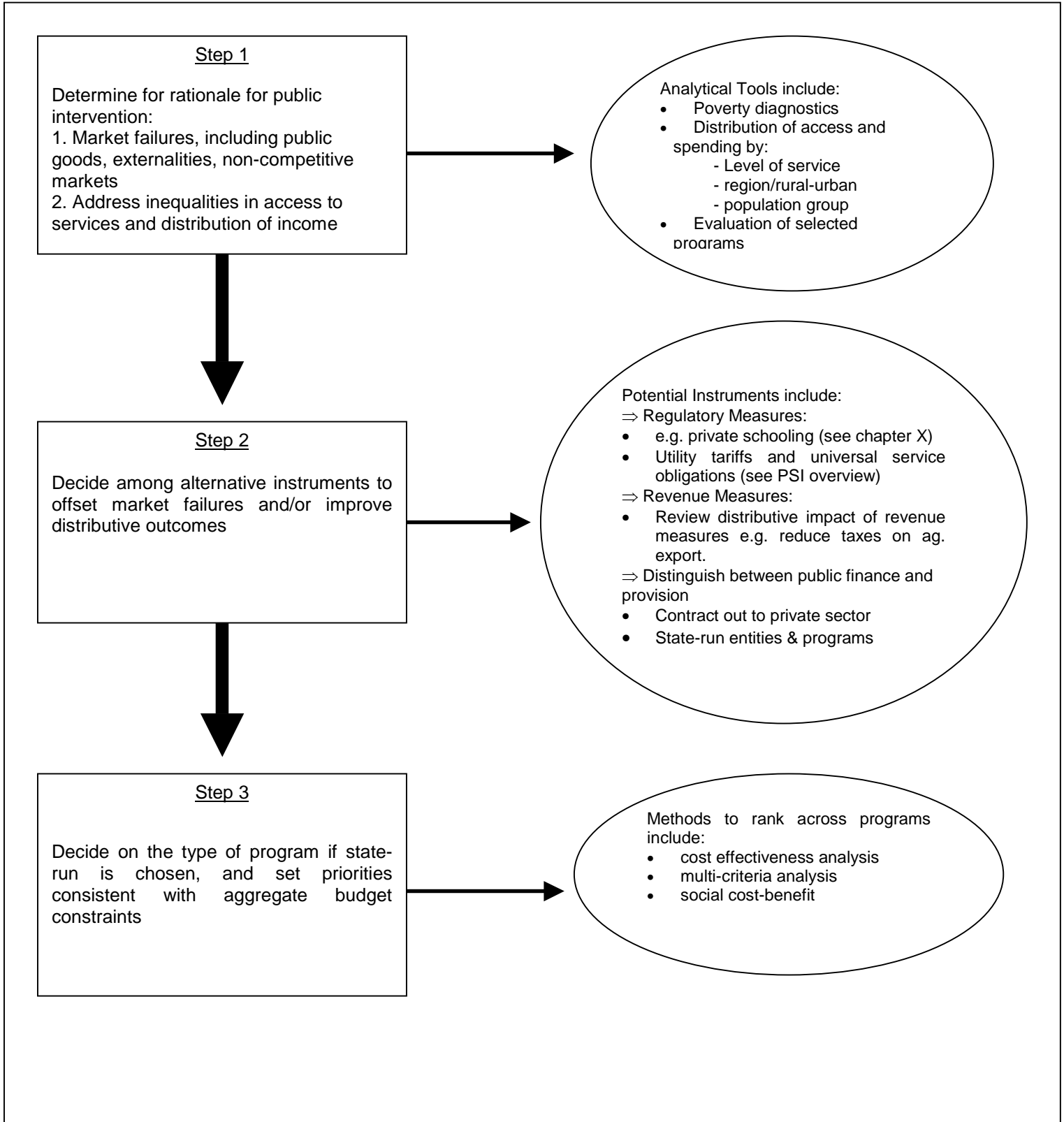
3. Assessing Spending Options

All governments face a wide range of conflicting demands on the limited resources available to them. They must make difficult choices in their poverty reduction efforts. In theory, governments should be able to devise the best spending allocation that will maximize social welfare. While optimal allocations may be unattainable in the real world, the poverty impact of public spending allocations can often be improved.

This section provides guidance on how to improve the quality of fiscal analysis to support the design of poverty reduction strategies. Some of the methods presented in this section are demanding and may be difficult to apply in many countries due to the lack of data. The basic principles that support these methods, however, can always be applied when analyzing and planning public expenditures, regardless of the availability of detailed information.

The framework outlined in Figure 2 has several parts, which are described below. The approach suggested is most easily applied at the sector level in appraising individual services and programs. The informational demands for a comprehensive analysis of spending allocations between sectors are substantial. In practice only the largest programs will be subject to this type of scrutiny. The last part of this section provides some guidance on how governments can get started and make decisions based on available data and analysis, while longer term improvements are being put in place.

Figure 2: Deciding When and How Governments Should Intervene: A simplified framework



The various steps in Figure 2 can be briefly highlighted as follows:

STEP 1: Determining the Rationale for Public Intervention:

One rationale is to address market failures that lead to inefficient resource allocation and cause private and social costs and/or benefits to diverge. Public intervention can also be justified on the grounds of equity, where private provision of goods and services will lead to a socially unacceptable distribution of income or large inequities in human development outcomes across socioeconomic groups. The results of national poverty diagnostics, public expenditure reviews and benefit incidence analysis will help to inform policymakers about the extent to which income inequality may justify policies for redistribution (see Section 3.1).

STEP 2: Deciding on an appropriate instrument to offset market failures or improve distributional outcomes. The fact that there is a strong rationale for public intervention to alter access to a particular service does not mean that the government can best respond by providing a good or service. Indeed, cases of government failure may be as common as those of market failure. Deciding on the most effective response involves examining the scope for using a mix of public and private delivery mechanisms, or for regulation, public financing of subsidies, and user fees. (See Section 3.2)

STEP 3: Assessing expenditure options. If the aforementioned analysis concludes that the public sector should directly provide certain major services, the next step is to assess the best way to provide these services. Various techniques can be used to guide this assessment, depending on the level and type of data available, including: cost-effectiveness analysis (based on measured inputs), multi-criteria techniques, and social cost-benefit analysis. While cost-benefit analysis allows decision makers to rank spending options based on a measure of net-present social value that applies across all sectors and programs, it is much more demanding in terms of data requirements and analysis than the other techniques. (See Section 3.3)

The rest of this section elaborates on the steps suggested by this analytical approach. The final subsection (3.4) provides tips on how to get started in the short-term, when data and time are limited.

STEP 3.1 Determining the Rationale for Public Intervention

Analysis of the underlying rationale for programs and services can begin at the sector level. At a minimum, line agencies could be required to identify the market failures and equity concerns that they intend to address during periodic reviews of public spending or preparatory stages of a MTEF. This subsection sets out different ways to assess equity concerns addressed by public intervention – looking at the level of service, regional composition of spending, benefit incidence analysis, and results from available program evaluations. It then examines rationale for intervention in terms of efficiency considerations, to offset market failures in the case of externalities, public goods, non-competitive markets and so on. Understanding the cause of the problem before interviewing is important, not least because different problems can be tackled with different instruments.

Spending on all major programs and projects should be subject to detailed scrutiny. To this end, Ministries of Finance may find it helpful to draw up—and gain cabinet approval for—a medium- to long-term public expenditure review strategy. The strategy would require systematic review of major existing or proposed programs to identify the market failure and/or distributional problem being addressed, and scope for shifts and reallocations. Many countries have adopted

such a review plan, and consequently decided to privatize industrial and agricultural enterprises. Areas where there is scope for substantial reallocation of resources may be identified in public expenditure reviews, or it may be appropriate to target sectors and programs based on the “largest first” criterion.

- Examining equity concerns.

Looking at the rationale for public intervention from an equity perspective is critical in the context of poverty reduction strategies. Poverty diagnostics – based on household surveys and other forms of information – may reveal substantial gaps in access and utilization for poorer groups in the country. The disparities may generally affect the poor, or girls/women, or be particularly serious in some regions, for example. A number of the sectoral chapters – in particular those on HNP, education and social protection, as well as the chapters on private sector and infrastructure - - suggest useful tools and sample tables that can be used to assess inequities in access. Poverty mapping can cast substantial light in this context. However it is important to look at utilization as well as access which is ostensibly available to households, since demand-side constraints as well as poor quality may put a wedge between access and utilization, even where services are formally free-of-charge.

This type of analysis requires various data sources, including: 1) data from a national census or a household survey with income and demographic variables, and 2) comprehensive data on the level of spending by the central and local governments, and projects financed by external aid, disaggregated by service level or by region. If good fiscal data is not available, or the coverage of available data is incomplete, it is generally possible to conduct analysis using service utilization data, or qualitative surveys of end users.

Some simple tools for examining the extent to which equity concerns are addressed by public spending are presented below. They are based on examining patterns of spending allocations between (i) levels of service, (ii) across regions, (iii) among different socio-economic groups, as well as (iv) program evaluation techniques, and are addressed in turn.

Level of service

Cross-country studies show that the poor tend to utilize lower levels of service in the education and health sectors more than higher levels of service – that is, primary rather than tertiary education, and local clinics rather than central hospitals. As a result the poor tend to enjoy a larger share of the benefits of spending on basic services. Although the distribution of benefits

Table 2. Government Current Expenditure Per Student by Education Level in Uganda (Ratio to primary)

Primary	1
Secondary	3
Teacher Education	25
University	157

Source: World Bank, 1993. “Uganda: Social Sectors: A World Bank Country Study” Washington.

accruing to the poor varies across countries, it is generally safe to assume that primary education is more pro-poor than secondary education, which is more pro-poor than tertiary education. Similarly, in the health sector, clinic health services are more pro-poor than hospital services.

Some insight into the distribution of benefits can therefore be gained simply by dis-aggregating education and health expenditures by level of service. The example given in Table 2 shows that the spending per student at secondary

school level is three times that at the primary level; the ratio of university to primary spending is a massive 157:1. Differences of this order of magnitude are not uncommon.

This simple tabulation reveals the need to reorient sectoral spending toward the primary levels of service that disproportionately benefit the poor. Where there is a bias toward tertiary-level services in the health and education sectors, simply increasing the total sectoral budget allocations may not significantly increase the volume of resources available for services used by the poor. Reallocation of resources towards primary services within the existing sectoral envelopes is important; it may be equally important, however, to adopt policies and programs that expand utilization of services by the poor (see the **health** and **education** chapters for examples).

Of course, these distribution concerns have to be weighed against the need for skill acquisition and labor productivity growth facilitated by tertiary investments, which in turn affect the rate of economic growth, and poverty reduction, over the medium-run.

Regional composition of spending

Poverty rates and public expenditure levels tend to differ significantly across regions and between rural and urban areas (see **Poverty Measurement** chapter). Analysis of the levels of sector or aggregate public expenditure per capita by region often reveals marked spatial disparities (see Table 4 for an example). The net flow of resources to and from the public sector, taking into account revenues channeled to the central government from local governments, often exhibits significant regional variation. Regional differences in spending levels can arise when the government intends to stimulate growth in a few highly productive areas in the short term in order to create a “growth pole” for broader regional development to “trickle down” in the future. This is the logic behind substantial investments in development corridors along major transport routes, and in economic infrastructure such as ports and irrigation schemes. However, the government may better serve poverty reduction goals by increasing the equity of the distribution of public spending, particularly on basic services in the poorest regions.

Table 3. Per Patient Recurrent Expenditures on Health, by Region in Guinea, 1994

(spending ratio relative to the national average)

Region	Health Center/Clinic	Hospital
Conakry (capital)	2.99	1.08
Lower Guinea	0.67	0.80
Middle Guinea	0.84	1.34
Upper Guinea	0.88	0.97
Forest	0.61	0.95
All Guinea	1.00	1.00

Source: World Bank, 1996, “Republic of Guinea Public Expenditure Review,” Report No. 14039-TA.

It is helpful to analyze the relationship between aggregate and sector spending levels and poverty rates by constructing a geographic poverty map. A poverty map visually matches public spending levels and poverty rates across small geographic areas (by district or region for example) so that one can observe concentrations of public spending and poverty on a geographic map. The same technique can be used to reveal an urban bias in levels of spending and service provision. Such poverty maps are powerful tools for presenting and analyzing the poverty focus of public spending, and the existence of spatial poverty traps. Poverty maps can be constructed if disaggregated fiscal and household poverty data is available (see also the **Poverty Measurement** chapter). **Technical Note 7** discusses a technique for combining regional spending data with poverty rates when decentralized allocations to the poor (by program, for example) are not observed.

Distribution of Benefits of Spending

Benefit incidence analysis allows scrutiny of existing spending programs, comparing the distribution of benefits from public spending to the distribution of income to determine whether the overall impact is progressive. Household or individual-level data can be used to measure the share of spending that goes to different income groups. The technique can be applied to any government service, although most applications have focused on the utilization of education and health services, and participation rates in public works programs.

Benefit incidence analysis involves three steps (detailed in an example in **Technical Note 5**):

- Estimating the unit cost, or unit subsidy, per person of providing a service based on expenditure data. *Average* benefit calculations require data on capital and recurrent costs whereas *marginal* benefit analysis requires data on recurrent costs only;
- Imputing the unit subsidy to households (individuals) based on their utilization of public services—usually derived from household surveys; and
- Aggregating households (individuals) into groups and comparing subsidy incidence across these groups. The most common grouping is based on income or expenditure quintiles. The population can be further broken down by region, ethnic group, or gender to allow various other dimensions of analysis.

Table 4 presents the results of a cross-country study of average benefit incidence analysis in the education sector. It shows public spending on education disaggregated by the level of service—primary, secondary, and tertiary—and the share of the top and bottom income quintiles in total spending at each level. The highest income group benefits disproportionately from secondary and tertiary education, largely because the poor have little access to these services. Although the share of benefits in primary education going to the poorest quintile is less than 20 percent, in most of the countries shown, it is substantially higher than in secondary and tertiary education. These results suggest that increased spending on primary education is most likely to benefit the poor; and that there may be scope for some targeted cost recovery from students in secondary and tertiary education.

Table 4. Benefit Incidence of Public Spending on Education in Selected African Countries

	<i>Quintile shares of total spending</i>							
	Primary subsidy		Secondary subsidy		Tertiary subsidy		Total subsidy	
	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top
Cote d'Ivoire, 1995	19	14	7	37	12	71	13	35
Ghana, 1992	22	14	15	19	6	45	16	21
Guinea, 1994	11	21	4	39	1	65	5	44
Kenya, 1992	22	15	7	30	2	44	17	21
Malawi, 1994	20	16	9	40	1	59	16	25
Madagascar, 1993	17	14	2	41	0	89	8	41
South Africa, 1994	19	28	11	39	6	47	14	35
Tanzania, 1993/4	20	19	8	34	0	100	14	37
Uganda, 1992	19	18	4	49	6	47	13	32

Source: Castro-Leal (1996b); World Bank (1996a).

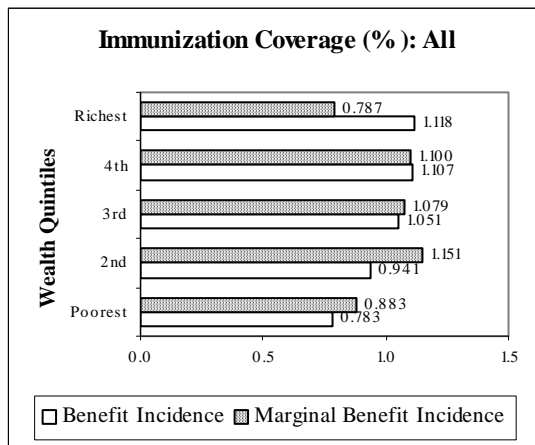
Benefit incidence data can also be presented graphically by using concentration curves (see **Technical Note 5**).

Policymakers may be less concerned about average program benefits—as revealed by average benefit incidence analysis—than about the distribution of marginal benefits from an increase in spending across different groups. Since government programs lend themselves to capture by

different income groups over time, the average and marginal distribution of benefits will generally differ. In some cases, the non-poor capture early and the poor benefit later, while in other cases, it works the other way around. For example, public works programs may be subject to early capture by higher-income groups, although the poor may disproportionately benefit later. As such, a program that currently benefits mainly the non-poor may still warrant expansion, as the poor may benefit disproportionately from increases in spending levels.

Marginal benefit incidence analysis allows policymakers to identify who benefits from additional spending—information that is concealed by measures of average benefit incidence—and is often the preferred measure for program appraisal. **Technical Note 5** includes examples of marginal and average benefit incidence calculations. In the case of immunization for example, as shown in Figure 3 below, the marginal benefit incidence is much more pro-poor than the average (all indicators are relative to the mean incidence, so that a value of 1 in the figure on the right for a quintile means that that quintile receives benefits in the same proportion as the overall population; the 5th quintile is the richest, the 1st is the poorest).

Figure 3: Comparison of Average and Marginal Benefit Incidence



Benefit incidence analysis, whether carried out using marginal or average benefits, does have drawbacks (see Box 5). The shortcomings, however, do not undermine the validity of the approach as a useful first approximation of the distributional impact of current programs. Benefit incidence analysis may reveal those parts of public spending that have a significant impact on poverty in the short term, but risks under-emphasizing supporting functions that may be more important for the poor in the long term, such as training teachers or improving service management.

Box 5: Caveats About Benefit Incidence Analyses

Benefit incidence analysis offers important insights into the social distribution of the benefits of government service provision and spending. However, the technique has its limitations:

- The cost of services is an inadequate proxy for the benefits received, and fails to consider the ability of different social groups to transform access to the service into improved wellbeing as measured by, for example, higher incomes;
- Government spending on a particular service may not represent the full cost to users, which may include direct payments—official and unofficial—to service providers, travel expenses, and the opportunity costs of time lost to productive activities;
- Analysis at the program level will not capture differences in the quality of services provided—for instance, differences in class size in education—which may vary by location and, in some cases, by social group; and
- It is often difficult to allocate benefits across social groups. For example, it is difficult to quantify the indirect benefits accruing to different income groups from road surface improvements.

Care should also be taken when interpreting results, not least because the method tends to give greater weight to short-run service delivery functions as opposed to longer-run capacity building.

▪ Program Evaluations:

In order to judge the impact of existing or past public interventions, good program evaluations can be invaluable. There is a rigorous methodology for undertaking this analysis, that involves various statistical techniques for assessing the consequences of a program intervention in relation to what would have occurred in the absence of the program (for example by using control groups) – see the chapter on Monitoring and Evaluation. This is preferably combined with qualitative and participatory information to understand the underlying processes and constraints. Where this exists it provides robust information on the effects of a program on income or other poverty related objectives.

In many countries, however, there are few if any, rigorous evaluations of programs, though the extent of this needs to be assessed in each case. Indeed, even in countries with a relatively strong evaluation tradition, only a few public development programs will have been subjected to full evaluation. Developing more systematic evaluation strategy with respect to key programs is an important part of a PRSP (see chapter on Monitoring and Evaluation).

• Identifying efficiency rationales for public intervention Market Failures

Different types of failure in the operation of markets can justify public intervention. Economists generally classify such failures into several types, namely public goods, externalities, merit goods and the presence of market power. This section briefly defines each of these. The important task is to assess the size of market failure.

Public goods are non-rival in the sense that consumption by one user does not reduce the supply available to others. They are also non-excludable. Users cannot be prevented from consuming them. These characteristics make charging consumption of public goods (such as defense, law and order, and public health) difficult, so that public goods will not be provided by the private sector and must be financed by the state, if at all.

Externalities arise when the actions of someone -- citizen, firm, or institution -- hurt or benefit others without that someone paying or receiving compensation. Negative externalities, such as traffic congestion, impose uncompensated costs on society. Positive externalities, such as those arising from the treatment of sexually transmitted diseases, are benefits that extend to society from the action of individuals. Externalities arise in production--for example, where economic activities lead to environmental degradation--and consumption--for example, the benefits in improved childcare and nutrition arising from basic education for girls are not fully enjoyed by the family. Governments can curb negative externalities by taxing individuals for the costs they impose on society or by regulation, and promote positive externalities by subsidy or direct provision.

Where there are *merit goods*, public subsidies may be justified to encourage consumption to be higher than it would otherwise be. There may be systematic under-valuation of services by consumers, as is often the case in primary education and preventive health care. For example, the value of pre-natal checkups may be underestimated by women with many other pressures on their time. The value of education for girls, whose parents expect them to get married and have children at a relatively early age, may likewise be underestimated by the family. The use of clean fuels in home cooking may be another example in some countries. Where there are merit goods, the fact that potential consumers “undervalue” the private benefits of those goods would lead to under provision and under consumption of those goods and services if left solely to the market.

Noncompetitive markets may arise for various reasons including because of natural monopolies, or asymmetrical information.

- Natural monopolies occur where the technical factors preclude the efficient functioning of more than one producer, allowing the provider to restrict output and increase prices and profits. This argument was historically used to justify the existence of public utilities, such as electricity and urban water supplies, although the competitive sale of licenses and regulation of private enterprises may be viable alternatives (see the chapters on private sector and infrastructure).
- Market power can also arise even when there are many producers, for example when consumers face large costs of switching suppliers. This may occur due to information constraints – such as in the case of doctors and medical care, or private schools – when it is difficult for individual consumers to judge the quality of alternative providers.

The appropriate response to market failures may involve public spending coupled with public provision – but may well not, as the next section goes on to explain. The final part of Section 3 provides some guidance to illustrate how authorities might get started in evaluating the rationale and impact of existing spending programs, and identifying redundancies as well as gaps.

STEP 3.2: Deciding on an Appropriate Instrument

The existence of market failures or adverse distributional outcomes does not necessarily justify public provision of services, even to the poor. The next step is to decide on an appropriate instrument to offset market failures and/or improve distributional outcomes. Figure 2 distinguishes broadly among three types of responses: regulatory measures, revenue or taxation measures, and public spending (with or without direct government provision). These options are not mutually exclusive, however, and more than one may be pursued to address observed problems in outcomes.

In practice, policymakers do not usually have to choose between government and private provision. Rather, they have to determine the appropriate balance and relationship between the

two. Governments should provide a permissive environment for private-sector service provision, although some regulation might be needed to maintain minimum standards of service delivery and to ensure competition. Where public and private providers operate alongside each other, the private sector can be expected to provide services selectively, concentrating on private or club goods (the fact that these goods are excludable allows the private sector to charge), and focusing on wealthier clients. The public sector, in contrast, can be required to provide basic services to all areas and citizens. This allows consumers to choose between service delivery options when they can afford to pay for the private-sector alternative, introducing an element of competition into service delivery.

The rest of this subsection provides an overview of issues related to choice of instruments, whether regulatory measures, revenue actions or public spending are appropriate.

Regulatory measures Regulatory responses may be appropriate in various contexts – particularly in cases of market failure. There are well-developed bodies of practice as to how to regulate monopolies, for example. Regulations can be instituted to provide better information to consumers to help them make decisions. Rules about pollution, including sanctions and fines as needed, can be used to reduce negative externalities, and so on.

In the sphere of private provision of services that are important to the poor, government needs to determine an appropriate regulatory role. The chapters on Private Sector and Infrastructure, including that on energy, for example, show the importance of regulations of standards. The chapter on education refers to the types of regulations on private schools which can inhibit its role, and those which can enhance its contribution to human development.

Revenue measures.

Taxation instruments can be used to encourage or discourage certain types of activity. At the same time, a primary objective of the tax system is to raise revenue as efficiently and equitably as possible. There are several dimensions of tax reform, which is a broad topic not dealt with in detail in this sourcebook. These dimensions include increasing transparency and certainty, and addressing the problem of eroded tax bases – especially in conflict countries--and dealing with evasion. Certain reforms will reduce revenue in the short term -- e.g. elimination of export tax and excess wage tax. Technical Note 4 addresses some of the distributional issues on the revenue side of the budget.

Public Spending.

Once spending by government is determined to be an appropriate option, the decision as to whether to operate state-run programs, or to contract out to the private sector (profit or not-for-profit) remains. Where contracting out is the appropriate option, government capacity in terms of oversight is important.

Various criteria can be applied in appraising alternative service delivery options, including relative efficiency, viability of private provision, and access of the poor to private services.

Relative Efficiency. This can be estimated by working out the unit cost of provision under public and private regimes. The comparison between public and private providers should be made on a competitively neutral basis. For example, one might examine the cost of treating a child for acute respiratory infection in a public versus private health clinic. When conducting these calculations, care should be taken to control for quality differences and attribute the full costs of the services provided, including the requisite share of administrative and fixed capital overheads, to remove any hidden subsidies for public provision. Cost differentials between the

private and public sector may arise from the different impact of credit and staffing constraints across private and public institutions. For example, the private sector may be more credit constrained than public sector institutions, although the public sector may face more staffing constraints in recruiting, hiring, and dismissing staff.

Viability of private provision private-sector capacity and willingness to provide the desired level and distribution of services needs to be assessed. An indicator of the capacity of the private sector is the extent of private-sector involvement in the sector or related industries. However, the current situation may be misleading where the regulatory environment discourages private provision or where public provision crowds out private-sector providers. It may also be helpful to examine the level of profit needed for the private contractor, given country and sector-specific risks, to enter the market.

Access of the poor to private services may be limited. It is important to consider the possible deficiencies in private-sector provision of services in remote and poor communities. Even if the private sector has demonstrable cost advantage, it will tend to “cherry-pick” by providing services to wealthy, urban and more densely populated areas due to the fact that the costs of providing these services are lower than in poorer and more remote areas. Government regulation of fees would tend to discourage private-sector provision in high-cost areas, such as rural areas. Public intervention, in the form of subsidies or service provision contracts, might be considered in order to ensure that enough coverage is provided in all areas. It is possible that subsidized private provision, even when there are problems in implementing user subsidies, will more efficiently reach the poor than higher-cost public provision.

Where private-sector providers enjoy a clear cost advantage, selective contracting out of service delivery to private sector operators might also be considered. Competition, however, will not necessarily have a positive impact on the quality of public services. This is particularly true where the number of skilled staff—doctors and teachers, for example-- is limited and the private sector is able to pay premium rates. Hence public-sector capacity to provide key services will likely be weakened as skilled workers are attracted by higher salaries into the private sector in better off areas. While competition may be consistent with supporting consumer’s right to choose, it could raise important equity and welfare concerns.

If contracting out is undertaken, it is important that the contract specify the qualitative and quantitative nature of the goods and services being bought from the private sector. Such a contract should be sufficiently flexible to allow reasonable subsequent changes without punitive consequences. As noted above, effective oversight and supervising capacity on the part of the public sector is important when contracting out is adopted.

Section 3.3 Assessing public spending options

Once the government has decided to intervene, it will have to choose between various programs that could potentially achieve the same goals. Different methods are available to guide this choice, including cost effectiveness analysis, multi-criteria analysis and social costs benefit analysis. The best approach would be full cost-benefit analysis, described below, although this may be too demanding, especially in its data requirements. It should be possible to at least carry out a basic assessment of cost effectiveness described in this section for all major programs.

- **Cost-Effectiveness Analysis**

Cost-effectiveness analysis is not used to value benefits or quantify externalities. Instead, a goal or desired outcome is defined and the alternative interventions are appraised and ranked solely on the basis of cost. This allows decision makers to compare the costs of alternative interventions that share the same goal. However, cost effectiveness analysis does not measure the intrinsic value of the outcome and cannot be used to compare programs that have different outputs.

This method has been applied extensively in the health sector, where the cost per disability-adjusted-life-year (cost/DALY) has been used as the cost-effectiveness criterion. On this basis, the 1993 World Development Report was able to rank a range of health services on the basis of their cost-effectiveness. Similar exercises have been carried out in many Organization for Economic Co-operation and Development (OECD) countries and in some developing countries (see the **HNP** chapter).

Measures of cost effectiveness can be used to support the ranking of spending options in all sectors. However it involves identifying a suitable outcome measure that is valid across the range of services provided. In the education sector, for instance, the level of literacy may be a suitable outcome measure for primary education but it is not applicable to secondary, tertiary, or vocational education. Where no suitable *outcome* measure can be identified, *output* measures may be substituted, although these are usually program specific and so have a more narrow application. For instance, the cost per primary school graduate can be applied only as a measure of cost effectiveness to appraise alternative interventions in support of primary education.

- **Multicriteria Analysis**

Multicriteria analysis is flexible, but lacks technical rigor. It entails identifying a series of appraisal criteria that generally reflect policy goals or desired outcomes, and assigning weights to each criterion. Alternative interventions are then appraised by each criterion based on the anticipated outcome of each intervention. A score is given to each sub-component of an alternative, and the scores are multiplied by the weight and summed for each intervention. Various scoring methods can be applied to accommodate quantitative and qualitative information.

Clearly, this method has limitations:

- The selection of the criteria and the relative weights are not based on any fundamental principle and can be altered at will;
- The scoring against qualitative criteria can be arbitrary; and
- The criteria used can overlap and cause double counting.

On the other hand, the method presents some advantages compared to other alternatives:

- Appraisal criteria and their weights can explicitly integrate poverty reduction goals into the appraisal of competing interventions;
- The method can be used at various levels of government in a participatory way, since the criteria, weights, and scores can be determined through consultation with experts, decision makers, the public, and stakeholders;
- Quantitative and qualitative information can be used, which allows for the consideration of externalities that are not captured by other methods; and

- The method is relatively cheap to implement and does not necessarily require substantial amounts of information.

This technique can never be more than a rough guide for decision-makers. However, it can provide significant insights into the relative importance of different policy goals and their implications for government intervention options. It is particularly helpful as a tool in participatory or consultative exercises (see Box 6).

Box 6: Applications of Multicriteria Analysis

One common application of multi-criteria analysis is in the prioritization of project proposals, such as the submissions of communities in demand led investment funds. A simple example is presented below, in which projects for the construction of primary schools are appraised against four criteria: the existence of teachers in post for a period of over six months (indicating the availability of resources for operation); existence of a Parents Association (indicating a basis for community participation in school governance); the school age population in the intended catchment area (indicating need); and current distance to the nearest alternative primary school (indicating access). The first two of these criteria are considered fundamental to the success of projects and so failure to comply results in a veto of the project (Line A). Data on the school age population and distance to nearest alternative school are entered (Line B), then normalized (Line C) by applying the following formula:

$$E = [e - e_{min}] / [e_{max} - e_{min}]$$

The normalized values are then multiplied by the respective weights for each of the criteria (Line D) and then summed to give a final project score (Line E). Changes in the weights, reflecting differing policy priorities – e.g. need versus access – alter the final scores (Line F).

	Project 1	Project 2	Project 3	Project 4
A Veto Criteria				
Teachers in post longer than six months	Yes	Yes	Yes	Yes
Parents' Association in place	Yes	No	Yes	Yes
B Absolute Values				
School age population in catchment	1650	1600	1350	1400
Distance to nearest school (km)	22	9	21	17
C Normalised values				
School age population in catchment	1.00	0.83	0.00	0.17
Distance to nearest school (km)	1.00	0.00	0.92	0.62
D Weighted Values				
School age population in catchment are x	7.0	5.8	0.0	1.2
Distance to nearest school (km) x 3	3.0	0.0	2.8	1.8
E Final Project Score	10.0	5.8	2.8	3.0
School age population in catchment are x	3.0	2.5	0.0	0.5
Distance to nearest school (km) x 7	7.0	0.0	6.5	4.3
F Final Project Score with inverted weights	10.0	2.5	6.5	4.8

Qualitative criteria can be “scored” and used, such as the managerial capacity of the Parents Association. Similarly, the method can be scaled up to the policy level to assess, for example, options for policing using such criteria as cost, impact on crime reduction and community participation. Inter-sectoral applications are more problematic, however, since appraisal criteria tend to be sector specific, though cross-sector criteria – such as employment or income generation - have been applied to poverty reduction funds.

- **Social Cost-Benefit Analysis**

Cost-benefit analysis lets decision makers determine whether net-present social value of a particular public intervention exceeds its discounted social cost, and therefore justifies financing. The relative merits of spending options can then be appraised based on their contribution to social welfare. Cost-benefit analysis is a powerful tool for analysis—it allows for the appraisal of spending options across the public sector as a whole, and the identification of the inter-temporal distribution of costs and benefits of public spending. However, it presents several methodological difficulties, including the valuation of benefits accruing from public intervention.

Since social cost-benefit analysis is well established as a tool for public spending analysis, and is featured in many government manuals and a wide range of supporting texts, readers are referred elsewhere for guidance on detailed methodologies. The present discussion is limited to issues that are of particular significance to its application in poverty-focused public expenditure analysis, including:

- **Benefit valuation:** The fundamental principle of social cost-benefit analysis is that benefits derived from a particular activity should be valued so that they can be examined against the corresponding costs. While this is straightforward for monetary transfers, it is more complicated in the case of in-kind benefits and services which need to have a value imputed. The points noted above about benefit valuation in the case of benefit incidence analysis are relevant also here.

This problem can be approached in two ways. First, we can assess the amount individuals would be willing to pay for a particular service, either by identifying the preferences revealed by their behavior or by using surveys to determine the contingent valuation of services. Although these techniques present a number of methodological problems, they have been widely used in the health sector. Or second, we can deduce the value of the benefit from other market-type information in order to derive a surrogate price. Benefits from education are usually measured by the discounted rate of return from the stream of higher earnings enjoyed by individuals because of schooling. A similar approach can be applied to the health sector, whereby the cost of death or ill health to an individual is measured by the foregone earnings or productivity.

This approach also has its shortcomings: 1) foregone income is certainly an inadequate measure of an individual's value of life and good health, and income may also be an inadequate measure of the personal benefits gained from education, especially among the poor; 2) a range of variables that may be important in determining the level of earnings of individuals and use of services is omitted; and 3) when valuing benefits, the approach makes no allowance for differences in service quality. The inherent difficulties of benefit valuation have led some to side-step the issue altogether, focusing instead on the specific outputs of public intervention (like cost-effectiveness and multicriteria analysis).

- **Addressing equity concerns:** The use of “willingness to pay” or income-based valuations of benefit will give a greater value to benefits that accrue to higher income groups than to benefits accruing to the poor. Benefit valuations can be adjusted by applying distribution weights that increase the relative value of benefits to the poor. However, choosing the appropriate weight is a matter of subjective preference.
- **Considering externalities:** The benefit valuation approaches described above focus on the benefits accruing to the direct users of services. These approaches ignore the externalities generated by public services, such as education, which would have to be quantified and valued in order to include them in a monetary benefit estimate. This is often impractical or can only be done by attempting to value, for instance, the ethical and social

values instilled in children through education, or the benefits of improved childcare. Hence, the full benefit of public provision of goods and services will tend to be underestimated using the standard benefit valuation methodologies described above. This has important implications for comparing public and private provision of services when relative efficiency is assessed. The private sector will not consider externalities in designing its services; therefore, private sector operators may provide fewer services than would be socially optimal since the additional costs or benefits of externalities are not taken into account.

- **Pricing government funds:** Financial and opportunity costs should be considered when undertaking cost-benefit analyses. In principle, this includes the cost of government funds. The financial cost of a program may be determined by the cost of borrowing--the prevailing rate of interest for government bonds, for instance. This will usually be significantly lower than the opportunity cost of private-sector use of resources. On the other hand there are the distortionary costs of taxation used to raise revenue and finance public services. Browning (1987) has estimated the shadow price, or opportunity cost, of government funds in the United States is between 1.1 and 1.5; the figure is likely to be much higher in some developing countries, depending on the tax system. If the shadow price is set at 1.4, this implies that public interventions should achieve a rate of return superior to 40 percent to justify the imposition of taxes needed to finance public spending. Given the difficulties in calculating the distortionary cost of taxes, shadow prices are unlikely to be applied. Nonetheless, it is important for decision makers to consider the cost public spending imposes on society when appraising interventions.

The informational demands of cost-benefit analysis are taxing. For this reason, the technique has generally been used to appraise specific programs and projects where the costs and benefits can be quantified. Despite the technical demands, the analysis of aggregate and sector spending composition can draw on the basic principles of cost-benefit analysis.

3.4 Assessing Options in the Short Term

A pragmatic approach for making judgements within a limited space of time is given below, in order to help get countries started. A minimum amount of reliable fiscal and poverty data is needed even to get started – in particular, reasonably good information actual on spending patterns; and a poverty profile. Ideally this would be complemented by evaluative information on the impact of programs, though this is typically limited.

In the short term, it should be possible to work through the five steps set out below. As time, data and other constraints allow, this should be enriched by the types of analysis set out above.

1. Overall fiscal analysis. It is useful to start with a description of the overall pattern of spending and revenues of the appropriate level of government over the past five to ten years, depending on data availability. Having a longer term view on spending is valuable since the impact of some programs on dynamic processes will have long lags. See Section 4.4 and Technical Note 1 for the types of information that are needed, which should include sectoral disaggregation; budgeted and actual spending; and, for the recent past, a functional distribution of expenditures.

2. Program descriptions. The unit of analysis of much public development effort is the program. The second step thus lists all the major development programs, with a summary account of the objectives, intended and actual beneficiaries, the relationship to potential target populations (see below) and program cost information. See the Social Protection chapter for an example of how this can be usefully put together.

3. *The population poverty profile.* A standard instrument of poverty analysis is the poverty profile: (see chapter on Poverty Data and Measurement). It is useful to extend this to the non-poor, in order to look at income inequality as well as absolute poverty; many fiscal programs will be reaching non-poor groups by design or accident, so any analysis of actual and alternative impacts has to include the whole population. Approaches to distributional analysis were set out in Section 3.1; see also Technical Notes 5 and 6.

4. *Initial analysis of the relationship between the program and population profile.* Bringing together the fiscal/program analysis with the population profile. This simply compares the needs/opportunities of different groups with current government programs. It would include:

(a) a listing of all programs against target groups, in order to get a full mapping. This will give an initial account of which programs are directed at which poor and non-poor groups.

(b) an initial overall coverage and cost analysis—designed to show which population groups (poor and non-poor) are being covered by different programs, and how much is being spent. Benefit incidence analysis surveys are useful when the data is available. Complementing this, a qualitative review on coverage and incidence could be undertaken. This will allow an initial analysis of the extent to which key groups are or are not covered, and the overall pattern of effort in relation to poverty reduction objectives

(c) identifying a set of key questions concerning both the impact of different programs and potential areas for reform and reallocations. This would be based on the initial assessment in (a) and (b)—from the perspective of different population/income groups and from the effort and coverage information.

Table 5 is an example that was used as an initial basis for discussion in Cereia, Brazil. Note that this table can be presented with various degrees of disaggregation, and with different groupings – e.g. by gender, or by administrative region. Within each group, it is also useful to distinguish different age groups. It will often be desirable to present both larger groupings (e.g. all rural), and with the distributional incidence within groupings.

5. *Overall evaluation.* In order to work out which public interventions have made a difference, there is a need for analysis of the *impact* of a spending category or specific program on the income (or other dimension of well-being) of a particular population group—in comparison to other interventions (see Section 3.1).

What can be done where evaluation results are not available? In the short term, two sources of information to develop more informed judgements on shifts in budget priorities:

(a) the use of the very rich body of experience on how programs work in the country, including the use and results of client and qualitative surveys;

(b) a systematic comparison of selected existing or potential programs with experiences in other countries with similar characteristics where rigorous evaluations have been done.

Together these two sources can enable an assessment of the current or likely impact of different programs—which, combined with the analysis of cost and coverage information in the previous section—will allow an informed analysis of the desirability, cost and potential impact on the different population/income groups of shifting budgetary allocations. Note that even this level of analysis will take time, and so will only be feasible for a limited set of major spending programs.

Table 5: Mapping Existing Public Spending Programs into Population Profile in Ceara Brazil

Household Group	Absolute Numbers	Key income characteristics		Program Type		
		Mean income	Poverty Incidence (%)	Human	Development	Risk Management (transfers etc)
1. Rural landless						
2. Small farmers						
3. Rural non-farm						
4. Small town (all)						
5. Metropolitan informal						
6. Metropolitan manual formal workers						
7. Metropolitan skilled formal workers						
8. Urban inactive households						
Total (All Ceará)						

4. Improving Public Financial Management

There are various obstacles to making the budget system a solid foundation for the development and implementation of poverty reduction strategies. This section identifies six ways in which scarce public resources can be managed more effectively to reduce poverty:

1. Planning resources more effectively;
2. Improving accounting, auditing and procurement practices;
3. Increasing the focus on performance in public resource management;
4. Creating an awareness of costs in line ministries;
5. Ensuring an appropriate balance of inputs for programs;
6. Integrating external aid in the budget; and
7. Encouraging consultation in the budget process.

There are no quick ways to improve the effectiveness of public spending. On the contrary, improved effectiveness is a long-term goal that requires developing appropriate expenditure management and accounting systems along with strengthening associated institutional and staff capacity. Transparency and accountability are also important components of a set of public expenditure reforms that aim to improve the effectiveness of public spending. Hence, the issues addressed in this section should be considered within the context of the broader public expenditure and administrative reforms underway in each country.

4.1 Ensuring Better Resource Planning: The Role of MTEFs

Good resource and expenditure planning implies a longer term perspective that informs policy and budget decisions since such decisions typically commit government to expenditure beyond one year. Good resource planning would imply an institutional system that:

- Disciplines policy choices within a realistic aggregate resource constraint over the medium term;
- Requires programs to compete for funding and ensures that policy and spending decisions are based on full disclosure of their expected impacts and costs over the medium term (this applies to both increases and decreases in funding); and

- Translates longer-term strategic priorities into sustainable; and

In turn, the above should be reflected in:

- **Better matching of spending with overall resource availability over the medium term**, thereby increasing the likelihood that policies in the PRS will have their intended impact and will be consistent with short-term financing and stabilization needs;
- **Sectoral allocations of spending more in line with government priorities**, on the basis of a comprehensive review of resources, policy options and their respective costs;
- **Improved sector planning and management**, by requiring the simultaneous programming of recurrent and investment expenditures among other reforms; and
- **Increased effectiveness and efficiency of spending** by requiring line agencies to better define their goals and activities and, where possible, link spending amounts to measures of performance in terms of outputs and outcomes.

The typical annual budget fails most of these tests. It does not capture the long-term implications of current spending decisions and thereby does not provide an adequate basis for matching future program financing needs with projected fiscal resources. The short-term focus is likely to subordinate longer-term poverty reduction and development priorities to immediate financial needs. Even countries with a tradition of five year plans have not been successful in integrating the plan with the annual budget. Effective and efficient resource management requires adopting medium- to longer-term perspective to budgeting in order to effectively link policies, plans and budgets.

Many OECD governments have introduced a medium term expenditure framework (MTEF). The MTEF represents a “top-down” resource envelope consistent with macroeconomic stability and explicit strategic priorities, a “bottom-up” estimate of the current and medium-term costs of existing and new policies, and an iterative decision-making process that matches these costs with available resources. Box 7 illustrates the broad steps involved in this process.

Box 7: Steps in preparing a MTEF

Step 1. (Re)estimate the resource envelope. Revenue estimates can be derived from 3-5 year forecasts of economic performance and development assistance flows.

Step 2. Set medium-term sectoral resource limits. The resources available for reallocation (to meet aggregate constraints and changed priorities) will be influenced by existing commitments, such as counterpart financing of aid, debt service obligations, intergovernmental transfers and, pensions. Wherever possible these should be attributed to their sector before limits are settled. Indicative sectoral spending limits are then set based on government priorities, existing programs, and preliminary discussions with sector ministries. The indicative limits, along with proposed policy changes from line ministers and the Minister of Finance, are submitted to the Cabinet (or a designated subcommittee of the Cabinet) for consideration usually several months before the beginning of the annual budget cycle.

Step 3. Prepare sector plans. The sector ministries prepare medium-term strategic plans that set out the sector's key objectives, together with their associated outcomes, outputs, and expenditure forecasts (within the limits agreed upon by the Cabinet). These plans should consider the costs of both ongoing and new programs. Ideally, spending should be presented by program and spending category with financing needs for salaries, operations and maintenance, and investment clearly distinguished.

Step 4. Review the sector plans. The Ministry of Finance reviews sector programs to verify their consistency with overall government priorities and spending limits. It focuses on the broad strategic issues rather than the detailed structure of proposed spending. Where the sector forecasts exceed the limits, the Ministry of Finance may assist the sector agency in trimming spending or may request more information to revise the limits.

Step 5. Submit revised limits to the Cabinet. Based on this review, the Ministry of Finance will propose revised multi-year limits on sector spending for Cabinet consideration. These limits provide the basis for preparing more detailed budget proposals in the first year of the MTEF.

Step 6. Prepare the annual budget and present to parliament. The annual budget (based on the MTEF proposal) can then be prepared by the line agencies, submitted to the Ministry of Finance for aggregation, and then presented for final consideration to the Cabinet and the parliament. The indicative allocations/limits for the outer years should accompany the annual budget that is eventually presented to parliament.

Step 7. Review and rollover. The existing spending estimates (budget year plus MTEF period) are maintained during the year and updated as necessary for any policy or parameter (e.g., inflation or growth) changes. The next budget cycle starts with the joint consideration of updated spending estimates for the MTEF period, the forecast of the following year's resource envelope, and changes in the government's strategic priorities

Source: Based on Muggeridge, 1999.

Preparation of a MTEF is an iterative process. Various aggregate resource forecasts can be estimated by assessing the tradeoffs between different macroeconomic and fiscal policy options (Step 1). This allows decision-makers to set aggregate expenditure and sectoral limits that best fit the country's broad development and poverty reduction goals (see the **Macroeconomic Issues** chapter). Given inherent uncertainties about economic conditions and spending

priorities, a contingency reserve can be created before informing sectors of their medium-term spending limits. Part of this reserve can be reallocated to accommodate revised spending limits once the sector programs have been prepared (steps 3–5).

Expanding poverty reduction programs will often require reallocating spending from other areas of government activity. Scope for reallocating spending may be identified in public expenditure reviews or by analysts examining the poverty focus of current spending (see section 3.1). By accounting for the costs of existing policies over the medium term, including statutory and contractual commitments (step 2), the MTEF allows policy makers to assess the real scope for spending reallocations. The MTEF also allows sectors to plan the release of resources from ongoing or terminating programs over an extended period, thereby minimizing unforeseen disruption (step 3). While a significant number of developing countries have embarked on the MTEF path most are still at an early stage, and a number of areas merit attention to increase its effectiveness as an expenditure-planning tool. These are:

- **Improving the reliability of resource and spending forecasts.** Unanticipated large reductions in revenue or increases costs can make forward estimates useless since spending limits would need to be revised drastically at the beginning of each budget year. This risk can be reduced by: a continuing focus on macro-stability; developing more accurate macroeconomic forecasting tools; understanding the incentives facing public officials responsible for revenue and expenditure estimation (see the chapters on **Governance** and **Poverty Measurement**); and improving estimates of the costs of ongoing and new programs. A contingency reserve can help mitigate the effects of uncertain revenue and expenditure estimates in the later years.
- **Identifying key poverty reduction programs.** Since variations in resource flows cannot be overcome completely, it may be helpful to identify high-priority spending programs within the poverty reduction strategy. These can then be protected from any cuts that prove necessary. When identifying key programs, care should be taken to assess the synergies between different programs. Examples include the large interactions between health and education programs. For instance, children's health may affect their learning capabilities and maternal educational attainment may positively impact their children's health. This requires analysts to focus on the intended impact of public policy (such as reducing mortality rates) rather than on individual program outputs (such as the number of children vaccinated). The existence of synergies also suggests that government agencies need to collaborate at the operational level.
- **Ensuring an adequate time frame for analysis.** Poverty reduction programs may take several years to launch. An expansion in the number of teaching staff, for instance, will take three or more years, since teachers have to be recruited and trained. Although a MTEF is a significant improvement over an annual budget due to its medium-term perspective, an extension of the temporal perspective of major programs beyond the time frame of the MTEF may be needed to evaluate their full cost.
- **Broadening the scope of policy analysis.** Initially, MTEF forward estimates will tend to present aggregate forecasts of sector and program spending levels broken down by economic classification. As institutional capacity develops, more detailed forecasts can be prepared including, for example, the regional allocation of resources. In the longer term, more sophisticated analyses of intra-sectoral allocations can be used to ensure that the composition of spending is pro-poor, drawing on the types of tools mentioned in Section 3, as well as the results of tracking and user surveys.

- **Opening the policy debate.** The forward estimates provided by the MTEF is at least as useful as a basis for national policy debate as for the budget. This is because expanding poverty reduction programs will entail long-term commitments that are not evident in annual appropriations. Although governments may be reluctant to open the MTEF to public scrutiny during its formative stages, the publication of the MTEF should be a high priority.
- **Using the MTEF to set budget limits.** Clear procedures are needed to ensure that the MTEF, which presents indicative resource allocations, is used in preparing the budget. Where MTEF estimates are not used as the starting point for annual budget formulation (step 6 in Box 7), the exercise will quickly lose validity. Thus it is critical that the MTEF be mainstreamed into the budget process as soon as practicable.
- **Linking spending forecasts to performance targets.** A link between resources and performance targets should be built into the MTEF exercise at an early stage in order to ensure that the MTEF does not allocate resources according to agency demands regardless of performance. The presentation of performance targets for programs and sectors along with the corresponding spending limits allows decision-makers to appraise the expected benefits of alternative spending options. The relationship between spending volume and performance measures will be difficult to model initially, and can best be presented as indicative at the start. In the longer term, however, these relationships can be refined and used as the basis for appraising future performance.

Although many countries have used macroeconomic forecasts for some time to set a hard aggregate budget constraint, the MTEF represents a significant innovation over these methods in its emphasis on the sectoral allocation of spending and the link between spending and performance. Ultimately, however, the MTEF will only be as effective as the weakest link in the public expenditure management system. For example, the effort in preparing medium-term forecasts of spending and its value for increasing resource planning in the sectors is likely to be lost if funds are not released to spending agencies as programmed. Thus, it is essential that MTEF development be accompanied by broader public financial management reforms and improvements in budget execution procedures. Guidance on these issues is offered in the World Bank's *Public Expenditure Management Handbook* and in the various other documents listed in the references.

4.2 Improving transparency and Strengthening accounting and auditing

Strengthening accounting, auditing, and procurement practices, and improving transparency in public financial management, will help to ensure that scarce financial resources are being used to achieve policy goals. This process requires, among other things, improvements in accounting systems, adoption of clear reporting rules and procedures, and skills development among government ministries.

A minimum expectations benchmark can be developed to measure performance in public financial management over the medium term. This benchmark would highlight institutional practices that underpin effective and poverty-oriented public financial management. The main indicators of compliance with minimum standards of performance can include:

- The legislature's timely approval of the annual budget and its public release in accordance with national laws;
- Regular, timely and accurate reporting by the Ministry of Finance to the legislature of actual government revenues and expenditures during and at the end of the budget year. These

reports would compare actual revenues and expenditure to planned budget estimates, and would be made available to the public in a timely manner; and

- Submission of timely reports to the legislature by the country's supreme audit institution on the accuracy of government accounts and on its compliance with financial laws and regulations. These reports would enable follow-up action on violations and should be made available to the public. The audit office should have adequate independence from the executive .

Over the medium term, public financial audits would increasingly disclose information on revenue and expenditure items that are not included in regular budgets. They would also cover financial reports provided to the legislature or the public on government operations that may divert scarce financial resources away from poverty reduction goals—for example, quasi-fiscal operations of parastatals or executive spending.

Complying with a minimum performance benchmark in public financial management could take several years to achieve, as improvements entail training staff in accounting procedures. They will also require attitudinal changes about the release of potentially sensitive information on budget execution.

4.3 Focusing on Performance

Public financial management systems have traditionally emphasized control of resources over achievement of outcome-oriented objectives. Resources have often been allocated to government agencies on a historical basis and without consideration of their goals or performance. At the same time, highly centralized decision-making and control systems have made it difficult for public servants to take initiatives that improve the efficiency and effectiveness of government programs. As a result, organizations become inflexible and unresponsive, resources are diverted from the delivery of essential services to administrative overheads, and the public service system settles into a low-level equilibrium, in which the lack of appropriate incentives and low expectations generate poor performance.

These concerns can be addressed by giving line agencies, departments, and service delivery units at the local level more autonomy over managing their resources. While developing a performance culture and supporting management systems may require wide-ranging institutional reforms (see the **Governance** chapter), a number of additional measures may be considered within the budget system to improve the link between resources and performance, without sacrificing the controls needed to ensure compliance.

Developing appropriate measures of performance is a necessary first step in this process. Ideally, these should be conceived as a hierarchy of criteria and indicators that reflect the goals identified in the PRSP and can be related to resource use (see Box 7).

Pragmatic considerations—such as the availability, reliability, and cost of data—should play a part in selecting appropriate performance indicators. It will often prove more cost effective to monitor indicators for which data is already collected on a routine basis—assuming they are relevant—than to develop new systems for collecting new indicators. For example, one could collect key socioeconomic data as part of the routine Health Management Information System (see also the chapter on **Monitoring and Evaluation**).

Box 8: Performance Measures and Indicators

The following performance measures can be distinguished, as illustrated by the examples presented below: (see also the chapters on Setting Targets, and Monitoring and Evaluation).

- **Input Indicators** measure the quantity (and sometimes the quality) of resources provided for project activities. The performance criteria corresponding to inputs is compliance, defined as adherence to budgetary limits, and economy, that is minimizing the monetary cost of a given volume and quality of inputs.
- **Output Indicators** measure the quantity (and sometimes the quality) of the goods and services created or provided through the use of inputs. The performance criterion corresponding to outputs is efficiency, that is, minimizing the total inputs per unit of output.
- **Outcome Indicators** measure the quantity (and sometimes the quality) of the results achieved through the use of the project output. The performance criterion is effectiveness, that is, maximizing the outcomes in relation to the outputs produced.
- **Impact Indicators** measure the ultimate change in the living conditions of beneficiaries resulting (wholly or partially) from a project or program.

Sector	Type of Indicator		
	Intermediate	Final	
	Input/Output	Outcome	Impact
Education	Number of teachers; Teacher absenteeism	No. of primary school graduates; retention rates in poor regions	Higher literacy rates among the poor
Health	Number of primary health staff; Availability of drugs	Vaccination rates among children of poor households	Lower morbidity and mortality rates in poor families
Police	Police Officers		Decline in crime rate

One of the challenges of performance management is linking the responsibilities of various levels of an organization, and levels of personnel, to appropriate performance indicators. The director of a village clinic may be held responsible for the number of vaccinations administered, for example, but he cannot be held responsible for the overall health status of the population. In general, measures of output and outcome are more suitable for service delivery units, and measures of impact are more suitable for the policy level. Care should also be taken to ensure that linking responsibilities to performance indicators does not have unintended results such as organizations and individuals seeking to achieve performance targets regardless of their impact on poverty outcomes. A focus on exam pass rates, for instance, may encourage schools to exclude less able students. Given these risks, it is preferable to measure program performance against a range of indicators—ideally with direct linkages to poverty reduction goals—and to monitor the impact of linking levels of personnel to performance indicators (i.e., the performance management system) as it is introduced.

Performance indicators can be linked to budgeting by requiring government agencies to present targets for key performance indicators as justification for their budget and medium-term

expenditure proposals. This can provide useful guidance to budget analysts, even where the relationship between spending and performance is still poorly understood—by comparing, for example, the growth rates of spending and key outcomes. More in-depth analysis can be undertaken as experience accumulates, allowing budget analysts to set targets for efficiency gains.

For performance targets to be effective, they must be attainable with the resources at the organization's disposal. Ideally, they should be set after consulting with the appropriate managers rather than imposed from above. Feedback from users, through surveys or other instruments, can also provide critical information. Benchmarking can offer a useful starting point when setting targets for comparable service delivery units (see below). It will also be important to set output and outcome targets after assessing the availability of inputs. For example, an increase in the number of children attending school in a district by 500 pupils may require 50 new classrooms, 50 more teachers, 250 desks, and 250 sets of text books. Attention should then turn to the feasibility of providing the necessary inputs within a given time period; if only 25 new teachers can be recruited and trained, the corresponding outcome targets can be scaled down accordingly. Only then should the manager consider costing the inputs required to achieve the revised targets.

Outcome and impact targets should have clear poverty reduction objectives, for example, by explicitly referring to utilization rates of certain socioeconomic groups or of regions which poverty diagnostics have identified as disadvantaged. In some cases, proxy indicators might be used to show the socioeconomic status of the beneficiaries of government services. For example, data on education of the mother may be collected during health clinic consultations, if that is a good proxy for household poverty status in a particular country. Existing information systems can be evaluated to see whether amendments could be introduced to provide better data on service distribution and, in particular, service access and use by the poor.

If target setting is to be taken seriously, processes for formal performance appraisal must be set up along with guidelines for corrective measures where targets have not been reached. Historical performance cannot be used as a basis for determining funding levels, since this would effectively penalize potential service users for the poor performance of government agencies. However, organizations should require managers to explain their poor performance and identify corrective actions they intend to take. If consistently poor performance is ignored, the performance appraisal system will quickly lose credibility. Which manager needs to be held accountable for poor performance will depend on how decision-making responsibilities are allocated and the extent of autonomy at, say, the facility level.

It may be helpful to develop a program budget that explicitly links the structure of public spending to the main goals and activities of the PRS. Care should be taken, however, to ensure that programs have an institutional framework in which certain players will be held responsible for managing resources and achieving performance targets. Alternatively, the program classification can be used to complement the existing administrative and line item and economic classifications.

Adequate incentives will encourage improved performance, although this does not necessarily imply monetary reward. Performance appraisals can stimulate improved performance when they allow peer comparisons and benchmarking. This system can work very well at the service delivery level, enabling managers to compare and contrast their performance with other units and helping to build a spirit of emulation and healthy competition. Closer analysis of the characteristics of better-performing units will help identify how poor performers can improve. Where monetary rewards are anticipated for personnel, care should be taken to build in systems for independently verifying performance indicators. Purchaser-provider arrangements can be

made with payments based on output, for example, clinics and number of vaccinations (see **Health** chapter).

Government agencies and managers can only be expected to improve performance when decision-making about resource use is decentralized. When budgets are prepared by line agency finance departments, operational departments and service delivery units may not be adequately consulted. This can lead to a mismatch between performance targets and budgeted resources. The situation is further aggravated when appropriations are made at the broad agency level and managed centrally. These problems can be overcome by improved internal consultation in budget preparation or devolution of budget preparation and management within the line agencies. Ideally, responsibilities for managing activities and managing resources should coincide. Devolution of responsibility for budget management to the service delivery point, where the beneficiaries may participate in decisions about delivery, can be particularly effective (see the chapter on **Community Driven Development**).

Performance may also be improved by giving managers at all levels greater flexibility in resource use. Traditional budgeting systems consider compliance a higher virtue than efficiency and effectiveness: spending on individual line items is minutely controlled and the re-assignment of appropriations to different expenditure categories is discouraged. Where line item appropriations and classifications are excessively detailed, it may hinder appropriate flexibility in using resources—for instance, preventing a manager from contracting transport services rather than incurring direct transport costs—without any corresponding gain in control. If reducing the number of line items is impractical, the scope for the discretionary re-assignment of funds may be broadened.

Other incentives in the budget system also need to be examined. As noted above, when Ministries of Finance and line agency finance departments consider budget execution rates in setting future years' budget limits, the agency has an incentive to fully spend its budget regardless of whether resources are actually needed. In these circumstances, performance can be improved by allowing agencies to carry over some unspent funds between budget years, where they can show that activities will also be carried over, and retain a part of efficiency savings at the end of the year. While these incentives can only be awarded selectively, and have to be carefully monitored to avoid abuse, they will tend to have a positive impact throughout the budget system.

Box 8. Monitoring Service Delivery Performance

Monitoring systems should provide feedback on the efficiency and adequacy of service delivery. In this context, efficiency measures the relation between inputs and outputs; adequacy relates inputs, outputs, and the process of service delivery to predetermined standards. Monitoring both requires information on key outputs and inputs.

When possible, output data should be derived from the routine reporting requirements of government agencies, although the most appropriate indicators may not be available with the desired frequency or level of disaggregation, or may not coincide with the financial year. Output performance can be assessed with reference to quality, quantity and timeliness of service delivery. Input information is generally limited to the budgetary or accounting data. Information on the physical inputs used to provide services other than personnel is rarely collected. Since reporting systems are expensive and difficult to introduce in the short term, it is generally advisable to make do with or adapt what already exists. Where adequate information is not available, surrogate measures can be applied—for example, declining attendance rates at government facilities are a fairly clear sign that the services provided have deteriorated. Developing specific new reporting systems can be justified only when the information is used routinely to support managerial or policy decisions. In Uganda, for example, introducing quarterly monitoring of the availability of supplies in clinics at the district level has helped to ensure that supplies reach their intended beneficiaries because managers follow up on these reports.

Independent controls on performance, through surveys of service users, provide a valuable safeguard. These mechanisms will be particularly effective where users are informed about the service standards and the inputs provided to service delivery units, allowing them to assess compliance and adequacy. Uganda has improved transparency in delivering education services by posting standards and budget information in all schools. Routine monitoring can be supplemented by periodic surveys of service delivery units to assess the adequacy of O&M funding, provision of inputs, and staffing levels. Periodic expenditure tracking surveys, described in **Technical Note 3**, can be a useful way to get accurate cost estimates, to pinpoint inefficiencies in public and private institutions, and to get a better idea of weakness in the budget execution system. Detailed analysis of the design of monitoring systems can be found in the **Monitoring and Evaluation** chapter and its case studies.

4.4 Creating Awareness of Costs

Public-sector accounting has tended to focus on compiling appropriation accounts to control and justify public spending. Costs may be estimated for new programs and projects but, once the budget has been approved, the appropriation is considered the point of reference for monitoring and control. If budgets are prepared incrementally, no further cost analysis may be undertaken. As a result, costs in public institutions are poorly understood. This can result in the inefficient and ineffective use of scarce resources. The focus here is on actual budget costs in an accounting sense; creating an awareness of macroeconomic costs (inflation and taxes) of alternative fiscal options is obviously also important (see the **Macroeconomic Issues** chapter).

Periodic public expenditure reviews provide an opportunity for the Ministry of Finance and line agencies to take a closer look at the cost structure of service provision. One of the approaches that can be applied in this context—analyzing expenditures by spending item or economic composition—was discussed earlier (see Section 3).

There are four complementary approaches to enhance awareness about costs: full costing, analysis by institutional structure, unit cost analysis, and activity costing. These are considered separately for two reasons: first, the focus here is on the internal management of institutions rather than expenditure analysis; and, second, the information required is usually derived from internal agency management information systems rather than the state budget and government accounts¹. Since internal systems are often rudimentary, the techniques have to be applied creatively and lack the precision of financial accounting. Still, they can provide insight into the structure and behavior of costs at any level of an organization and can support managerial and policy decisions.

- **Full costing**

Budget appropriations and accounts do not necessarily reflect the full costs of operating government agencies. Typically, the following items will be omitted: 1) goods and services consumed by the agency but procured by and charged to a different budget holder—such as centrally purchased vehicles, medicines, text books, or maintenance services provided by a public works department; 2) goods and services financed from off-budget sources, such as external assistance and extra-budgetary funds; and 3) the cost of equipment and infrastructure consumed by the agency during the budget year, since the purchase costs are registered and then written off.

Omitting significant cost items from agency budgets and accounts is problematic. It underestimates total agency costs and, by implication, the cost of the services that the agency provides, leading to higher levels of service provision than is affordable. It also means that managers are not accountable for the resources they consume, leading to inefficient supply-driven consumption. This is a problem familiar to donors. The high building standards frequently applied to schools provide a good example. These standards might well be less exacting if the costs of construction could be directly attributed to the school budget, allowing trade-offs with other facilities and supplies.

Costs can be better understood by requiring agencies to fully cost the services they provide during periodic public spending reviews. Comprehensive coverage of these reviews will rarely be possible, since the agency may lack information on the cost of inputs procured by others. However, where cost information cannot be provided, the items omitted in routine budgets should at least be identified.

Efficiency is best improved by changing the underlying incentives within institutions. Managers can be held accountable for the inputs provided by other government agencies through introducing internal charging. For instance, funds for tertiary road maintenance could be attributed to districts rather than the public works department. This would require that the districts contract the public works department for the road maintenance services they consume. This will encourage managers to control consumption and reduce unit costs, opening the way to competitive tendering with alternative service providers. Similarly, the incentive regime for capital inputs can be improved by introducing capital charges. In the United Kingdom, recent budget reforms require agencies to prepare an operating cost statement that includes a depreciation charge to cover the cost of replacement of an asset and a charge for the capital used. These approaches are not without problems and are not immediately applicable to most developing countries. Still, they suggest that there are mechanisms that can help governments end the perverse incentives created by under-pricing.

¹ Cost analysis techniques can only be covered briefly in this chapter. For further detail, see: UK Treasury Cost Analysis Manual, Web page; CIPFA Cost Analysis Manual, Web page.

- **Analysis by institutional structure**

In order to gauge the likely poverty focus of agency spending, it is helpful to know how much spending is dedicated to service delivery. A breakdown of costs by department will show the direct cost of front-line service delivery functions compared with administrative and non-core support functions. Care should be taken when interpreting these results—it will be necessary to refer at all times to the functions each department fulfills. For example, head offices may fulfill costly regulatory and supervisory functions that justify a substantial share of agency resources. In other words, this type of cost breakdown does not show the full cost of front-line service delivery functions since it ignores the cost of support services provided by other departments.

A more accurate picture of the agency cost structure can be gained by apportioning part of the costs of head office and other support departments to the service delivery departments that use these services based on fixed overhead recovery rates. The cost of agricultural extension services, for example, would include the cost of supporting research programs. This provides a better basis for appraising service delivery costs than the direct costs alone and provides some indication of the level of residual administrative overheads that the agency bears.

- **Unit cost analysis**

Unit cost analysis seeks to set up the cost per performance unit in a particular period. Performance is usually measured by agency output, which provides an indication of the level of activity. In a health clinic, for instance, unit costs might be calculated based on the number of consultations. Outcome measures can be used where agency output is the sole or determining factor in the level of the outcome measure. Unit costs can be computed for the agency as a whole and for each department. In each case, unit costs can be broken down by cost item, for example, personnel and capital costs per unit of output. Where departmental unit costs are prepared, the overhead costs of agency support services and facilities should be apportioned to set up the full cost of outputs. For instance, the unit costs for departments within a hospital should include the costs of overall hospital management, maintenance, and other general services.

Unit costs can be used for internal analysis or for comparison with other agencies (e.g. private or NGO) providing a similar—ideally, identical—range of services. When used as the basis for comparison, either between agencies or over time, unit costs provide a good indicator of efficiency. They can also be used as the basis for cost-reduction targets, performance monitoring, and the appraisal of different methods for delivering a particular service. However, unit costs have to be interpreted with care, since they may not take into account the quality of service provided, which will generally have to be controlled for independently. It is also important to consistently treat the costs of capital, which may be spread across a number of years, so as to avoid excessive “lumpiness” in unit cost profiles.

- **Activity costing**

Whereas unit cost analysis is based on the principle that outputs “consume” inputs, activity costing follows the principle that outputs involve activities that consume inputs. This allows overheads to be allotted more accurately and to better reflect the relationship between support services and facilities and the final output of the agency. It also allows managers to identify how organizational procedures affect costs. The approach usually involves a detailed analysis of the activities undertaken, including measurement of such inputs as the time required by personnel to undertake each activity, and the definition of a cost driver for each activity or group of activities. The cost driver is a quantitative variable that determines the level of cost for the

activity. In a maternity clinic, for instance, the cost driver might be the number of consultations, the number of births, the number of births assisted by a doctor, or the length of postnatal internment. The costs of individual activities are assigned to each unit of the output they generate.

Activity costing is likely to be most effective as a tool for analysis in agencies that provide a wide range of services, involving many different activities. For this reason it has generally been applied in the health sector and, to a lesser extent, in agricultural services and policing. It is particularly useful in designing new programs, since the cost of different implementation mechanisms can be appraised. It also supports management by providing the basis for departmental and personnel performance targets. However, activity costing is analytically intensive and thus is better utilized where unit cost analysis has failed to provide an adequate understanding of cost behavior within an agency. For example, it could be effective where attempts to drive down costs have not been successful, possibly because cuts have been poorly targeted.

4.5 Appropriate balance between capital, salary and operations and maintenance.

Inappropriate composition of spending on different types of inputs may seriously compromise the effectiveness and impact of spending on the poor. If no trained nurses are available in clinics, the poor are effectively denied access. If classrooms fall into disrepair, the quality of learning may suffer. And so on. The appropriate economic composition of spending will be determined by institutional or program goals. The analysis of the economic composition of spending will usually distinguish between capital investment and recurrent expenditure, and the latter may be broken down into payroll costs, other goods and services, subsidies and transfers. Capital investment and O&M are likely to be the main components of spending for public works programs, while in the social sectors, payroll costs will tend to dominate. Despite these inter-sectoral differences in the structure of spending, it is possible to identify patterns of under spending or overspending for certain expenditure categories. These patterns can best be analyzed at the sectoral level by focusing on spending by institution and—where information is available— by program on: 1) capital and recurrent expenditures and within the recurrent budget, 2) payroll versus non-payroll costs.

- **Capital versus recurrent spending**

In many countries there is a significant bias toward capital expenditures, driven by governments which perceive the current coverage of services and infrastructure to be inadequate and the expansion of service networks as a priority. This bias is reinforced by donor preferences for projects as well as domestic construction lobbies. One of the results of this capital bias is to reduce the funds available for O&M, leading to inadequate funding of service provision and the gradual degradation of capital investments and the quality of public services.

Examining the general flow of goods and services from all spending categories can help to identify biases toward capital expenditures. This broad perspective can be supported by rigorous screening of programs and projects, to ensure that future O&M costs have been considered and are reflected in budget proposals and forward estimates of the MTEF. Where O&M costs are underfunded, existing allocations are not a suitable basis for appraisal. Ideally, detailed costing of O&M requirements should be prepared (see below). Where this has not yet been carried out, international benchmarks may provide some guidance (see **Technical Note 2**). A good rule of thumb for equipment and small buildings, such as schools and health posts, is that 5 percent of the total construction cost should be allocated to maintenance annually.

- **Is Payroll spending appropriate?**

Since wages and salaries are major spending items in most sectors, line agencies and the Ministry of Finance can undertake detailed analysis of the staffing and payroll composition in order to identify potential for savings or cost reduction. Three key issues should be addressed: 1) the appropriate level and composition of staffing; 2) the appropriate balance between and 3) the structure of civil service pay and its impact on institutional performance. Experience shows that there is no single answer, and pay and personnel reforms have to be part of a broader public-sector reform effort.

Although the appropriate level and composition of staffing is conditional on the type of services being provided, some key indicators can help to guide the analysis. These include:

- The proportion of staff and staff costs in front-line service delivery agencies, which is an indicator of the “weight” of the bureaucracy in the system;
- The structure of personnel by level of training; and
- The composition of staff by type of contract, distinguishing between short-term or daily contracted staff and permanent employees.

Similarly, the degree to which payroll expenses crowd out O&M spending can be assessed by using a few simple measures:

- Trends in payroll growth over time; the ratio of payroll to O&M spending;
- O&M spending per employee; and
- O&M spending per front-line staff member.

The adequacy of pay scales can be gauged by comparing public sector pay against equivalent private-sector salaries. In the analysis, care should be taken to use the take home pay of civil servants, including base pay and a wide range of fringe benefits. Relevant incomes in the informal sector can also be considered.

Transforming this analysis into a policy response is more complicated. Many public services are caught in a vicious circle of poor pay, poor performance, and overstaffing. Solely reducing staffing levels to increase pay rates has rarely been successful. Significant savings may be generated by updating personnel records, centralizing the payroll system and ensuring adequate monitoring of staff, all of which help to end fraudulent payments to “ghost workers.” Comprehensive hiring freezes, or a freeze on hiring poorly qualified personnel, can also help reduce the fiscal costs of overstaffing in the medium term. Public sector retrenchment may also be considered, although, once again, the payoff for such programs is generally negative in the early years. Donors can and have provided financial support to government programs aimed at cutting staffing levels and raising pay rates, particularly for highly qualified personnel.

- **Is enough being spent on operations and maintenance?**

Spending on nonpayroll O&M directly affects program efficiency and effectiveness. Underfunding of O&M results in inadequate provision for the materials and services needed to sustain service delivery and maintain capital infrastructure—signs of underfunding include when schools lack basic teaching materials, clinics lack drugs and supplies, and roads become impassable. Underfunding of O&M can impose large direct costs on governments when the deteriorating capital stock requires extensive repairs, and large indirect—or opportunity—costs when personnel and capital investments are used inefficiently.

The appropriate level of O&M expenditure is best determined by service delivery standards, which will often have to be developed for specific programs, sectors and services. These

standards will determine the volume of inputs required to provide a certain service, and should not be based on current levels of O&M spending and inventories of existing equipment and infrastructure if O&M is currently underfunded. Developing these standards is a time-consuming task, requiring a full costing of inputs for service provision. It is also inherently political, since the desired level of inputs may not be possible given current funding constraints, requiring adjustments to expenditure ceilings or iterative revisions of the service delivery standards. Once established, the standard represents a commitment to fixed spending levels per service delivery unit. Much care should be taken, then, to ensure that the standards are set at a sustainable level (see Box 9).

Box 9: How much should agencies spend on non-wage operations and maintenance?

How much Government agencies should spend on non-wage O&M depends on the cost of the package of services that the agency provides, or intends to provide. This in turn depends on the means by which these services are delivered and the prevailing cost of inputs - and the return on the resulting expenditures as compared with alternative uses of public funds.

Inter-country comparisons highlight the most egregious discrepancies in expenditure on non-wage O&M, but they can be misleading owing to differences in country conditions and the nature of services provided. Comparisons over time are more revealing, particularly where these are related to changes in population, staffing levels and numbers of service delivery units. Historical trends are, however, an unsatisfactory basis for expenditure policy, particularly where – as is often the case - expenditure on non-wage O&M has long been insufficient to sustain the desired level and quality of services.

Ideally, non-wage O&M allocations should be based on a costed package of services, taking into account the physical inputs required to provide services, related to the target population or service delivery units – such as materials and textbooks for primary school students, medicines, materials and maintenance charges for health facilities. On this basis expenditure norms can be defined. This should be an iterative process, in which the aggregate cost of services at the desired level of coverage is related to the resources available and, if necessary, revised downwards by adjusting the content of the package and/or levels of coverage. This ensures that the expenditure norms are realistic and sustainable given resource constraints. Hard choices may be necessary: many countries, for example, are able to afford global coverage of the minimum public health package costing US\$12 per capita identified in the 1993 WDR. Failure to confront these resource constraints will undermine the norms since the required levels of funding will not be available.

Obviously, the process of costing a standard package is easiest at the lower service delivery units, where the range of inputs needed to provide services is limited, though even at this level expenditure norms are unlikely to be fully costed or take into account regional variations in cost or service provision. For these reasons operational managers tend not to apply norms rigorously. Nevertheless, they provide a sound basis for resource allocations and give managers guidance on indication of expenditure priorities. Monitoring of expenditure in relation to performance indicators is needed to ensure that adequate levels of non-wage O&M are applied. Community participation in management and supervision of service delivery units provides a further guarantee, since communities will be the first to suffer if adequate funding of non-wage O&M is not assured.

Although there is widespread evidence that expenditure on non-wage O&M generates substantial returns across a range of sectors, valuation of the returns relative to other expenditure categories is problematic. The World Bank's Highway Design and Maintenance Standards Model does permit policy analysts to appraise trade-offs between maintenance and capital expenditures for transport systems, taking into account a wide range of country specific conditions. (http://www.worldbank.org/html/fpd/transport/roads/rd_tools/dm3.tm) Unfortunately, such tools have yet to be developed for other key poverty reduction sectors.

4.6 Integrating External Assistance

Increasing the poverty reduction impact of public spending will often require more effective delivery and coordination of external assistance, particularly in aid-dependent countries. This can best be achieved by integrating the management of external and internal resources in the budget process. This allows the government to allocate all available resources according to its policy priorities. While full integration may be a long-term—and perhaps unattainable—goal, donors and governments can greatly improve the effectiveness of external assistance in the short-run by:

- **Negotiating an external assistance strategy in the context of the PRSP process** that explicitly identifies the priority sectors and programs for donor financing. Although most donors will broadly agree with the poverty reduction goals identified under the PRS, differences in priorities and approaches will need to be reconciled between donors and government. More detailed external assistance strategies can then be developed for key areas through sectoral working groups in which representatives of major donors and line agencies participate. This has already been done in a number of countries in the context of Sector Wide Approaches (SWAPS). An extension of that approach is envisioned here.
- **Agreeing on financing priorities for individual donors within the framework of a global external assistance strategy**, rather than through bilateral agreements, will allow the government to 1) lock donors into longer-term financing agreements and 2) exert peer pressure on donors who may want to renege on agreements at a later stage or on those who prefer to develop their programs outside the broad framework outlined by the government. Developing a comprehensive external assistance strategy will also reduce the risk of financing non-priority spending, which often occurs when external assistance agreements are negotiated on a project-by-project and donor-by-donor basis. Also, donor codes of conduct can play a useful role. These have been negotiated and adopted in specific sectors in a number of countries.
- **Moving toward more flexible and longer-term financing instruments.** Consensus is growing that projects are often an ineffective way to channel development assistance in aid-dependent countries. In response to these criticisms, there has been a gradual move in recent years toward support for sector programs. In this approach, government and donors support the development of a sector under government leadership. A single policy and spending program is used along with common management and reporting procedures. The sector program approach offers several advantages:
 - ◇ It allows government to direct resources to priority spending within the sector, and may enable a better balance between financing for technical assistance, investment, and O&M;
 - ◇ It generally entails a longer-term commitment to the sector, thereby improving the predictability of resource flows to the sector; and

- ◇ It reduces transaction costs by consolidating the reporting and management systems and, where possible, by using the government's internal financial management procedures to disburse and account for funds.

In many countries, sector programs will be the most effective instruments for managing external assistance in support of the PRSP. Where the development of sector programs is impractical, attention should focus on screening individual projects to ensure their consistency with the goals of the national poverty reduction strategy.

- **Strengthening the national capacity for managing external assistance within a core government agency**, with responsibility for: negotiating and approving financing agreements; tracking donor financing pledges, commitments, and disbursements; and facilitating donor support to priority institutions and programs. These functions are best fulfilled by a single institution, ideally based in the Ministry of Finance, to allow links with the budget and the MTEF. While developing capacity is ultimately the government's responsibility, donors can play an important role by ensuring compliance with the government's aid management systems. This can be done by providing timely reports on commitments and disbursements that are structured for easy use by the government's financial management agencies. Unfortunately, most donors have a poor track record in providing these reports.
- **Ensuring that resource allocation decisions take into consideration all the resources at the government's disposal**, including those provided through external assistance. Where a MTEF is in place or is being introduced, it is the most appropriate instrument for programming development assistance. Where a MTEF has yet to be developed, this function may be fulfilled by the public investment program (PIP), which will generally list the majority of projects and programs financed by external assistance. The more comprehensive the financial information provided by donors, the more coherent resource allocations would tend to be.

4.7 Encouraging Consultation and Participation in the Budget Process

The poverty impact of public spending can be improved by involving those who are supposed to benefit from government services in budget preparation and monitoring (see the **Participation** and **Governance** chapters). Stakeholders can be involved at many levels, from consultations of users for their views on priorities and performance, to user participation in managing government agencies and services.

The choice of the appropriate consultation technique will depend on the purpose of consultation and the resources available. Box 10 provides a menu of possibilities. Most of the techniques that generate qualitative data are most appropriate in appraising performance as it relates to the process of service delivery. Surveys, on the other hand, generate a wider range of performance indicators.

The greatest challenge lies not in collecting information but in devising ways by which the information gathered can be used to support policy and managerial decisions. This is particularly true of qualitative information, which may have to be transformed into quantitative data to suggest orders of magnitude for preferences and to scale the problems identified in the process of service delivery. While managers will generally have discretion in how they use and respond to comments by the general public and service users, policymakers will prefer to base decisions on a sound quantitative base. Where the results of consultation exercises are intended to be used by sub-national levels of government, clear guidance should be provided on how this information can be integrated in routine planning and budgeting procedures.

While consultation provides decision-makers with information, participation requires that citizens and the beneficiaries of services take an active role in resource management decisions. Traditionally, the budget process has been closed – carried out within government under a veil of secrecy and revealed to the public only after parliamentary approval. Greater transparency in the budget process, as evidenced by the timely publication of public financial management information—budgets, accounts and forward planning documents such as the MTEF—in a form that permits meaningful analysis, is a necessary precondition to greater participation. Another precondition is allowing citizens to voice their concerns and priorities through the press, lobby groups, and their representatives. Guidelines on improving transparency are provided in the IMF’s “Code of Good Practice on Fiscal Transparency.” See <http://www.imf.org/external/np/fad/trans/summary/summary.htm> and supporting manual.

Box 10: Choice of Consultation Method for Allocation Decisions and Performance Appraisal

Consultation method	Implementation constraints	Allocation decision supported	Performance measure supported
Household Surveys	Expensive and require specialist analysts	Inter-sectoral, Sectoral	Process, Outcome
Service Delivery and Integrity Surveys	Expensive and require specialist analysts	Sectoral	Input, Output, Process
Participatory Poverty Assessments	Expensive and require specialist analysts	Inter-sectoral, Sectoral	Process, Outcome
Rapid Rural Appraisals	Expensive and difficult to generalize results	Local (village) possibly Regional / Sectoral	Process, Outcome
Public Meetings	Generally tied to specific issue	Local	Process
Focus groups	Generally tied to specific issue	Local, Sectoral	Process
User or citizens panels	Generally tied to specific area or sector	Local, Sectoral	Process
Report cards and user surveys	Generally tied to specific area or sector	Local, Sectoral	Process
Representative bodies (NGOs, Associations)	Generally reflect special interests	Local, Sectoral	Process

For further information consult: <http://www.servicefirst.gov.uk/1998/guidance/users/index.htm>

In order to foster participatory budget planning, it will be necessary to develop ways to:

- (1) **Provide information to stakeholders so that they understand the budget process and how they can influence key decisions.** For example, the government can (a) publish "Citizen's Guides" to the budget process and the tax system; (b) use newsletters, associations, meetings, etc. to disseminate information about the budget process and to receive feedback from stakeholders; (c) publish fact sheets on how the local budget process works and details on where a given district's money comes from and how local tax payments are used; (d) open a government publications office where members of the public can review official budget documents; and (e) publicize achievements and obstacles related to sound financial management and expected budgetary outcomes by sector.
- (2) **Provide stakeholders with information on budget decisions after the passage of budget.** For example, the government can publicize information about tax rates.
- (3) **Open avenues for stakeholders to monitor actual expenditures in order to ensure correspondence between budget plans and actual budget execution.** For example, the government can disseminate information on the amounts and timing of budget disbursements over the radio or in newsletters.

The key to building a participatory budget planning system is facilitating a culture of open communication at various levels of government, and between public officials, local political leaders, and citizens' group. Because stakeholders will have diverse education and linguistic backgrounds, effective communication and information dissemination strategies about the budget process will often require the use of radio broadcastings and printed materials in local languages.

The benefits of participatory budget planning to the government are both political and economic. By more directly involving stakeholder groups, participatory budget planning can help to boost public support for the local and national budget process, which in turns increases people's willingness to voice their concerns about fiscal management and their budget priorities; and improve communication between government officials, political leaders and civic groups.

Publication of budget releases at the local and sector levels can also increase fiscal transparency and accountability in local financial management systems, and facilitate effective planning and service delivery at local clinics and schools, for example, by reducing uncertainty about financing for salary and program expenditures. Open communication strategies about the budget process at the local level can also help to increase tax compliance and local tax revenues. Citizens are more likely to pay taxes once they understand the budget process, how their contributions are used to finance public services that benefit them, and are confident that there is minimal corruption in the local financial management system. Hence participatory budget planning can help to increase the local revenue base for public service provision.

Resources

For guidance on sector programs see Mick Foster and Adrian Fozzard (2000) "Aid and Public Expenditure", DFID Economists' Manual; and Mick Foster, Andy Norton, Adrienne Brown and Felix Naschold (2000) "The Status of Sector Wide Approaches' A Framework Paper " for the meeting of the Like-minded Donor Working Group on SWAPs, for Irish Aid at <http://www.odi.org.uk/pppg/cape/capepapers.html>

HM Treasury (UK) (1996) "Keeping an eye on Government's own costs: an introduction to analysis and assessment techniques".

<http://www.hmtesury.gov.uk/pub/html/docs/keg/keg.pdf>

IMF's "Code of Good Practice on Fiscal Transparency" See <http://www.imf.org/external/np/fad/trans/summary/summary.htm> and supporting manual.

Mick Foster and Adrian Fozzard "DFID Economists' Manual: Aid and Public Expenditure" (web page) for guidance on the development of sector programs.

Salvatore Schiavo-Campo and Daniel Tommasi (April 1999) "Managing Government Expenditure", Asian Development Bank,. <http://www.adb.org/wgpsr/pub.html>

UK Treasury Cost Analysis Manual, web page; CIPFA Cost Analysis Manual, web page.)

Tomasini, Potter, .

UNDP, UNESCO, UNFPA, UNICEF, WHO and World Bank, "Implementing the 20/20 Initiative", 1998.)

UK Department of the Environment, Transport and the Regions, "Review of Technical Guidance on Environmental Appraisal" (April 1999), at <http://www.environment.detr.gov.uk/rtgea/8.htm>

World Bank (1999) Public Expenditure Management Handbook, PREM

World Bank (1998) "The Public Expenditure Management Handbook" <http://www1.worldbank.org/publicsector/pe/handbook.htm>

References

Ablo, E. and R. Reinikka, "Do Budgets Really Matter? Evidence from Public Spending on Education and Health in Uganda," World Bank Policy Research Working Paper #1926, June 1998.

Castro-Leal, F., J. Dayton, L. Demery and K. Mehra, "Public Social Spending in Africa: Do the Poor Benefit?" World Bank Research Observer, Vol. 14, 1, February 1999, pp.49-72.

CIPFA (UK) (1999) *"The Application of Activity Base Costing Techniques within Local Government - A Guide for Practitioners"*.

Devarajan, S., L. Quire and S. Suthiwart-Narueput, "Beyond Rate of Return: Reorienting Project Appraisal," World Bank Research Observer, Vol. 12, 1, February 1997, pp. 35-46.

Foster, M. and Adrian Fozzard, "DFID Economists' Manual: Aid and Public Expenditure" (web page).

Go, Delfin Sia, "Institutional Issues Affecting Budget Management in Zambia," Internal World Bank Memo, 1999.

Government of Uganda, Ministry of Finance, Planning and Economic Development, 1998, "Background to the Budget."

Gupta, S., M. Verhoeven and E. Tiongson, "Does Higher Government Spending Buy Better Results in Education and Health Care?" IMF WP/99/21, Washington, DC: IMF, 1999.

Hills, S., "Improving Budget Transparency in Uganda: Informing Stakeholders and Including Them in the Budget Process," Final Report submitted to the Ministry of Finance, Planning and Economic Development, May 1, 2000.

International Monetary Fund, "Unproductive Public Expenditures: A Pragmatic Approach to Policy Analysis," Pamphlet Series No. 48, Washington, DC: Fiscal Affairs Department, IMF, 1995.

Jack, William. Principles of Health Economics for Developing Countries. WBI Development Studies. Washington, DC: The World Bank, 1999.

Lanjouw, P. and M. Ravallion, "Benefit Incidence, public spending reforms, and the timing of program capture," World Bank Economic Review (International), 13, 257-73, May 1999.

MacKinnon, J. and R. Reinikka, "Strategy Can Help Fight Poverty: Lessons from Uganda," January 1999 draft.

Muggeridge, E., "Mozambique: Assistance with the Development of a Medium Term Expenditure Framework," Draft Report, The World Bank, June 1997.

Ravallion, M. and P. Lanjouw, "Benefit Incidence, Public Spending Reforms, and the Timing of Program Capture," World Bank Economic Review (International); 13; 257-73, May 1999.

Ravallion, M. "Monitoring Targeting Performance when Decentralized Allocations to the Poor are Unobserved," World Bank Staff Working Paper, 1999.

Rob van den Honert, Leanne Scott and Philip Fourie (1998) "Application of Multi-Criteria Decision Analysis to Problems of Fair Allocation in Local Government", paper presented at Conference on Systems, Theory and Practice: Dealing with Complexity in Policy Formulation, University of Cape Town.

Sahn, D and S. Younger, "Dominance Testing of Social Sector Expenditures and Taxes in Africa," IMF WP/99/172, Washington, DC: IMF, 1999.

SPA Working Group on Economic Management, "A Fiscal Framework to Financing Gap Calculation," Draft Discussion Paper prepared for the Plenary Meeting, Mary 1999.

Potter, Barry and J. Diamond. Guidelines for Public Expenditure management. Washington, DC: IMF, 1999.

Pradhan, S, "Evaluating Public Spending: A Framework for Public Expenditure Reviews," World Bank Discussion Paper 323, May 1996.

Tibana, R and A. Gomani, "Capacity for Macroeconomic Analysis and Policy Advice for the Medium Term Expenditure Framework (MTEF) in Ghana," Report of the MTEF Macroeconomic Consultants, Accra, Ghana: Consulting Africa Ltd, February 1998.

Varian, Hal R. (1992). Microeconomic Analysis. Third Edition. London: WW Norton & Company, Ltd., 1992.

World Bank (1993). Poverty Reduction Handbook. Washington, DC: The World Bank, 1993.

World Bank (1997). Public Expenditure Management Adjustment Credit to Guinea. Official loan document. Washington, DC: The World Bank, 1997.

World Bank (1998). Public Expenditure Management Handbook. Washington, DC: The World Bank, 1998.

World Bank (1999), "Using Surveys for public sector reform," World Bank PREM Note Number 23, Washington, DC: The World Bank, May 1999.