CHAPTER II
GOVERNMENT BUDGETING: THEORETICAL ISSUES

INTRODUCTION

Over the past fifteen years, developing countries have taken various measures to reform their economic and developmental policies and to integrate with the world economy. The new performance budgeting initiatives during this period are typically a part of a broader set of reforms that are changing, both the way in which the public sector is managed and the boundary between the public and private sectors [Robinson and Jack: 2005; and Dean: 1986]. This has taken place in reaction to sweeping changes brought about by economic globalization on one hand and the developmental miracles achieved by an increasing number of what were considered developing economies on the other hand. Various exogenous factors have accelerated the pressure for reform: the demands made by international organizations consisting of the World Bank (WB) and the International Monetary Fund (IMF); the establishment of the World Trade Organization (WTO); the partnership agreements made with the European Union; and the demonstration effect of the East Asian Economies [Diamond and Khemani: 2006; and IFAC: 2006]. In few developing countries, indigenous factors and self-initiatives were forces for reform [Shende and Bennett: 2004; Jreisat, 2005]. The budgeting system currently in use in most developing countries is the traditional input focused line-item budget, whereas this system focuses on the allocation of budgetary resources based on input requirements and historical precedents.

In fact, adopting a Program and Performance Budget (PPB) system represents an early prerequisite for the transformation to the results-based management system; therefore, most of the developed countries that have reformed their public sector management into a results-based system have had performance budgets in use for several years [OPPAGA, 1997]. A few developing countries are currently applying, on experimental basis, or exploring the potential use of PPB. So a successful shift of focus has already taken place in public budgeting in many countries: United States, Organization of Economic Cooperation and Development countries (OECDs),
Australia, Canada, New Zealand, the UK, Mexico, and others [Lienert, and Moo-kyung, 2004; and Hepworth, 2002]. For years, demand-driven public agencies defined success by how much money is budgeted, how many people are hired, and how many programs or activities are funded. Now, a result-driven government defines success not by how much is budgeted but by what effects or what impact such spending makes.

THE SCOPE

This chapter is a review of public budgeting theory. The review incorporates decision theory because the most compelling theory of budgeting (incrementalism) embodies “a pluralist decision-making process that produces minor changes in spending policies” [Shafritz:1998:288]. Several authors describe budgeting as a form of decision making [Wildavsky, 1964; Schick, 1983] as cited in [Meyers, 1994; Rubin, 1992: Golembiewski and Rubin, 1997; Khan & Hildreth 2002]. It also highlights the relevance of the systems theory. This is important partly because public budgeting is “open to the environment” [Caiden, 1990b; Rubin, 1992, as cited in Golembiewski and Rubin, 1997].

The review of developments in budget theory is broken down into management, political and economic perspectives. It then provides an outline of the budgeting techniques focusing on PPB and its importance. The chapter explains the relationship between reforming the government’s accounting system and wider budget system at the conceptual level only. It also deals with performance management and reporting. Finally, the critical conditions for new reforms in the Republic of Yemen are discussed.

ADEQUACY OF BUDGET THEORY

The International Encyclopedia of Public Policy and Administration [Shafritz: 1998] describes budget theory as “the conceptual structure, which defines how observers think, analyze and explain the budget process and its outcomes” [p.286]. It also explains that budget theory can be “approached from a variety of perspectives, from the analytic concepts of economics to the sociologies of human interaction, communication and negotiation”(p.287). According to Rubin [1992], as cited in Golembiewski and Rubin [1997], a theory should be able to state assumptions, point to certain problems as of
key significance, come up with some hypotheses about what causes what, to cull practical problems, and to suggest solutions.

Gianakis and McCue [1999] agree that budget theory is fragmented, incomplete and is in the process of being invented. They explain that the conceptual confusion and substantive fragmentation that characterize budget theory reflect the multidimensional nature of the subject, the variety of approaches brought to bear on it, and the fragmented structure of the field of public administration. In general, they confirm the inadequacy of the budget theory by quoting Hackbant and Carson, who claim:

Of particular concern is that state budget practitioners have little useful theory to under gird their actions….practitioners live in a world very much not of their own choosing and with concepts and tools that are consistently inadequate for the job expected of them. Nevertheless, it is a world in which the success of the enterprise is very much dependent upon the skills, talents, and judgments of the practitioner. It is a world of action that demands better supporting theory. [Hackbart and Carson, as cited in Glanakis and McCue, 1999:163].

EVOLUTION OF BUDGET DECISION THEORY

Long back, Wilson [1887] and White [1926] suggested the development of a science of administration to make government management more business like and efficient. The rational model of decision making outlines five scientific steps of a decision: (a) defining the problem; (b) gathering all the facts; (c) constructing alternative solutions; (d) scientifically analyzing the alternatives; and (e) selecting the best alternative.

Rationality exists when a decision maximizes the welfare of the decision maker. Several scholars criticized this model for a variety of reasons. Lindblom [1959] developed the theory of “disjointed incrementalism,” which argues that organizations are conservative decision makers and they generally “muddle through” a problem rather than adopt a purely national solution, which might create instability. Etzioni [1967] developed the “mixed scanning” decision model, which is a hybrid of national choice and incrementalism. This model argues that decision makers should reserve rational analysis for major or fundamental decisions, which require a full consideration of alternatives and results in significant policy decisions. Smaller decisions can be made through incremental analysis. On the whole,
the budget theory is viewed from different perspectives. These perspectives include (i) The Economic Perspective; (ii) The Political Perspective; and (iii) The Management Perspective. In fact, these perspectives have evolved over times. A brief analysis of these perspectives is presented below.

(i) The Economic Perspective:

The lack of a budget theory highlighted by Key [1940] as cited in Lewis [1952] probably sparked the beginning of budget theory development for resource allocation decisions. Key explained that budgeting was essentially a form of applied economics, since it required the allocation of scarce resources among competing demands and urges the development of an economic theory to budgeting. Lewis [1952] attempted to stimulate further consideration of the economic aspects of budgeting and analyzed three propositions pointed specifically at problems of the federal government. The three principles, which revolve around the concepts of relative value, incremental analysis and relative effectiveness analysis, are designed to achieve the best use of resources.

Relative Value: Rarely does an agency have sufficient funds and other resources to do all the things it is set up for. Confronted with the problems of scarce resources, government officials must make some choices. Under this proposition, budget decision must be made on the basis of relative values. According to the doctrine of marginal utility, the return from expenditure must be worth its loss in term of sacrificed alternative uses of funds. Both costs and results must be considered together; the costs must be judged in relation to the results and the results must be worth their costs in terms of alternative results that are foregone.

Incremental Analysis: This concept refers to the analysis of the additional values to be derived from an additional expenditure and is necessary because of the concept of diminishing utility of returns. This method divides available resources into increments and considers which of the alternative uses of each increment would yield the greatest return. This approach, while useful in focusing attention on the real points at issue, does not explain how values of unlike functions should be compared.
**Relative Effectiveness:** According to this principle, people can only compare the value of different things by evaluating their relative effectiveness in serving a common objective.

Rubin [1992] as cited in Golembierski and Rubin [1997] explains that the financial-economic position emphasizes the need to allocate resources usually based on Pareto optimality standards that maximize benefits to everyone. Under this criterion, budget increases should be allocated so that everyone is better off and no one is worse off. It assumes no reallocation.

According to Gianakis and McCue [1999] the economic perspective tends to focus on the nature of public goods and the locative efficiency of the mix of goods and services provided by government. According to this view, budgeting is approached as a subset of the larger problems of the efficient utilization of societal resources, and decision rules and allocation processes, including markets, are examined for their relative utilities. In this regard recent efforts have also sought to construct models of public sector decision making using concepts from microeconomics.

**(ii) The Political Perspective:**

Perhaps the most dominant vision of how the budgeting process works in government is delineated by Wildausky [1964]. He describes budgeting as an incremental process of bargaining between institutions under conditions of uncertainty. Budgeting participants respond to uncertainty by relying on certain ‘aids to calculation’. They limit the scope of their activities to a small number of items, seeking small amounts of increases from the ‘base’ and developing routine behaviors. He drew the term ‘incrementalism’ from Lindblom [1959], who had used it as an alternative to the view that government decision making should feature comprehensive planning by experts. In contrast, ‘incrementalism’ featured a limited search for information (bounded rationality) and extensive reliance on the political process to set policy goals. The theory Wildavsky sought would be successful in accounting for the operation and outcomes of the budgetary process.

A theory of influence would describe the power relationships among the participants, explain why some are more successful than others in achieving their budgetary goals, state the conditions under
which various strategies are or are not efficacious, and in this way account for the pattern of budgetary decisions, Wildavsky [1961: 189]

Wildavsky elaborated and tested his theory of budgetary incrementalism for the next three decades in response to severe criticism by other scholars [Gist, 1977; Leloup, 1978; Wanat, 1974]. However, some authors started referring to the previous publications as the “old politics” [Jones and McCaffery, 1994].

Jones and McCaffery [1994] also conclude that while reformers laud miracles that may be achieved by reform. The potential winners and losers from reform assess their odds and stick with the status quo while bending slowly with the winds of change, returning straight up once each budget storm fad has passed. Amidst all of this, the real battles over who gets how much money for what programs and for what programs it will be spent continues, woven in with whatever procedural experiment is underway at the time.[p.38].

Wildavsky and Caiden [2001] explain that the new politics of the budgetary process is a narrative that includes change and continuity, centralization and fragmentation, ideology and opportunism, division and agreement. Further, they observe: Over two-thirds of the federal budget is accounted for by prior commitments such as entitlements, interest payments, and contracts. Even the so-called discretionary spending is not really open to radical change. In this sense; budgetary politics is incremental because it leaves untouched, decisions about the great bulk of revenues and spending. The politics of budgeting, by their nature, will find no definitive resolution or end, though their intensity might diminish [pp.xv & xvii].

Le Loup [1978, as cited in Gianakis & McCue, 1999] also questions whether the incrementalism model was ever an accurate description of public budgeting and prefers a top-down approach centered on the chief executive officer. Rubin [1992] as cited in Golembiewski & Rubin [1997] tends to support this position when she argues that incrementalism provides the theoretical opposite of the economic perspective. It is based on the theory of bounded rationality in decision making and suggests that rationalism is neither possible nor desirable because of reasons which include time, information availability, controversy, and human intelligence. Rubin argues:
Without arguing that all projects are indeed subject to cost-benefit analysis, scholars no longer argue that budgets are reviewed by legislators concerned only with benefits for their districts; similarly, while scholars do not argue that all expenditures are compared against each other to achieve the maximum benefit from each dollar of revenue, neither do they argue that all new spending decisions are made without examination or across the board. [Rubin, 1992, as cited in Golembiewski & Rubin, 1997, p. 190]

Rubin’s view is that currently the consensus is that budgeting is linked to society and to the environment by both technical constraints and policy, and that interest groups are sometimes important in determining outcomes. Budgets change over time as a result of changes in the environment. Budgets also respond to campaigns of reform.

Rubin [1990] has a rather different but useful perspective on the budget process. She provides a descriptive theory of how the politics of budgeting works. Her theme is that the characteristics of contemporary decision making stem from its constant need to resolve policy conflicts and its openness to the environment. She also argues that budgeting is segmental and interruptible unlike the traditional budget theory, which emphasizes annuality and unity. She divides the budget into five distinct decision clusters of decision making: revenues, process, expenditures, balance, and implementation. These areas Rubin argues, involve different policy issues, different interests, and, therefore, different politics.

Conclusions on each of the decision clusters are briefly summed up by Caiden [1990a] as follows: “The politics of taxation is not a politics of coercion; it is a politics of persuasion” (p.53). It is characterized “by a struggle to shift the burden of taxation away from one’s own group” (p.56), and “by a relatively long time span in which both narrower and broader societal interests compete for positions” (p.54). Budget processes are dominated partly by technical coordinating decision making, but they are also open to the environmental pressures and the strategies of actors, who try to use them to help achieve power as well as to solve policy problems, resulting in a tendency toward constant change. The politics of expenditures is one of managing competition, which involves strategizing and efforts to “lock in” parts of the budget through such devices as earmarking revenues, trust funds, and entitlements. It is also
concerned with managing accountability and acceptability. Budget balancing politics reaches the larger issues about the scope and structure of government, as well as competition among different areas of the budget. Finally, budget execution involves a politics of adaptation and control, marked by "a pattern over time of an initial grant of broad discretion, abuse of discretion, and reduction of discretion" Rubin, [1990: 218]. Political figures focus on the budget process to seek more power.

(iii) The Management Perspective:

Gianakis and McCue [1999] identify studies done by others—Miller in 1991, Gerwin in 1969, Rubin in 1979, 1990, and 1993, and Lynch in 1989—that have approached budgeting from an organization perspective. In Miller's [1991] theory of financial management, budget managers manipulate symbols and produce rituals centered on the common element of resource constraints. The budget office becomes a salient organizational actor and a unifying metaphor in an environment characterized by resource scarcity. This theory is based on the assumption that there is considerable consensus about organization goals. According to him, the financial manager must deal with the ambiguity and uncertainty precipitated by the social construction and organizational reality by a variety of actors.

Gerwin's [1969] model on the factors which influence the budget-making process in the administration of public school systems illustrates a core problem in building theories of budgeting; effective theory building requires a common focus for the examination of the multitude of elements that comprise the resource allocation process. Rubin [1990, 1993] indicated the need to look inside operating departments for evidence of non-incremental policy outcomes. The weaknesses with this approach led Tom Lynch to develop an approach to budgeting, which focuses on "explaining those aspects of public budgeting involving policymaking, management, and the interrelationship of policy and management" as cited in Gianakis & McCue, [1999:173]. With a better theoretical knowledge of that phenomenon, one can use that understanding to argue for change in the way that activities are conducted in a bureaucracy. The systems basis of his model meant that the model was not easily accessible to the practitioner. Gianakis and McCue
also identify other studies that have examined organizational dimensions of specific budgeting processes, such as forecasting by Klay [1985]; decision sequencing by Whicker and Sigelman [1991]; the adoption of budget reforms by Rubin [1992]; budget analyst behavior by Willoughby [2001] and Thurmaier [1995]. The works of Thurmaier and Willoughby focus on decision-making criteria of budget analysts and how these influence the budget process. The weaknesses of all these studies stem from the fact that they employ specific concepts from organization theory to examine individual components of the budget process. However, none of these studies propose to form a new basis for the development of budget theory by casting the formal budget process as part of the organization's resource allocation system.

Gianakis and McCue [1999] explain that organization-based budgeting theory is founded on concepts of differentiation and integration, originally employed by Lawrence and Lorsch [1967] in which they argued how a complex environment requires an organization to become more differentiated in order to deal with the variety of demands emanating from its environment. Differentiation generates the problem of integration, i.e., resolving the inevitable conflicts that arise from multiple perspectives and thus maintaining the identity of the organization, resulting in the need for conflict regulators. Lawrence and Lorsch held that the ability of certain persons to resolve conflicts may be based on their perceived expertise rather than on the formal authority attached to their positions. According to Gianakis and McCue [1999], researchers need to explore the capacity of the budget office to serve in a conflict regulation mode. They also highlight the need to know how the centrifugal forces in multi-service local governments are affected by internal service funds and other fund structures; the earmarking of funds to certain services; performance management systems; and other finance related systems. These centrifugal forces militate against studies of the efficiency, economy, and effectiveness of public service delivery systems, which means that the allocation and technological efficiency of resource must be carried out in this context.

Thompson [1967] attempts to reconcile the ideas that organizations can be opened to influences from their environments and yet can function
rationally to achieve a given end. His central point is that organizations act to shield their core technologies from external influences and this may be useful for studies of agency behavior in the budget process. For example, in ZBB, researchers can approach the local government organization as the environment of the individual agencies, and the efforts of the latter to protect their core technologies from environmental shocks, in order to preserve their external identities. Orton and Weick [1990] argue that the "loose coupling" concept developed by Weick [1979] allows theorists to approach organizations as simultaneously open and closed systems, exhibiting rationality and indeterminacy. Gianakis and McCue [1999] explain that, with this approach, the resource allocation process is identified as a dimension of organizational functioning, serving to couple the various delivery systems that comprise the local government organization. The budget process can function as a tool for managers to establish the degree of coupling that optimizes the outcomes of the resource allocation process. The relationships among the budgeting process, loose coupling, and managerial decision-making perspectives, are possible targets of explanatory theory building, while the definition of the necessary optimal outcomes in an organizational context must be a product of normative theory building.

Budget theorists can also glean from postmodern approaches [Fox & Miller 1995]. With this view, organizations are simply socially constructed abstractions, rather than objective realities to which people react. In order for public organizations to reflect democratic values, they must be the product of open, authentic social discourse; otherwise they and their processes (including budgeting) are coercive. By reifying public organizations and treating processes such as budgeting as purely technical endeavors, practitioners and theorists subvert true discourse [Gianakis & McCue 1999].

The resurgence of PBB is partly attributed to the "reinventing government" movement by Osborne and Gaebler [1993]. According to this approach, controls on the use of inputs by public managers should be removed, and managers should be held accountable for achieving policy outcomes. Practitioners connect budgeting to public management and organizational functioning in ways not considered by traditional budget theory.
BUDGETING TECHNIQUES

The idea that incentives and better information can improve purely incremental budgeting practices produced a series of innovative approaches to budgeting that focus on better information and alignment of incentives. Modern budgeting systems (and reform programs to shift more traditional systems) often include various elements of these approaches. The main budgeting techniques include the following: (i) Line-Item Budgeting; (ii) Performance Budgeting; (iii) Planning, Programming-Budgeting System; (iv) Zero Based Budgeting; and (v) Program and Performance Budgeting. A brief conceptual analysis of these techniques is presented below.

(i) Line-Item Budgeting (LIB):

The line item budget is the most traditional type of budgeting in government. In traditional line item budgeting systems, public expenditures by government for the coming year are listed according to what money is spent on ‘line items’. Items record how much money a particular agency or sub-unit is allowed to spend on salaries, equipment, infrastructure, consumables and other items. Line item budgeting is about controlling aggregate expenditure of agencies by stating the limits of spending on each item in the budget allocation process [Sharp and Rhonda, 2003]. Line item budgeting does not attempt to identify the objectives of government activity or what activities would be undertaken to promote these objectives. As a result, line item budgets do not give information about why money was spent, or about the efficiency or effectiveness of programs [World Bank, 1998].

(ii) Performance Budgeting (PB):

Performance budgeting is an outgrowth of the line item budget. Its purpose is to help decision-makers analyze service production. A program budget, like a line item budget, has a structure consisting of departments and divisions. The performance budget includes a plan that defines the amount of service that can be produced for a given amount of resources. This type of budgeting is also called results oriented budgeting or outcomes budgeting.

Evaluating a performance budget requires examining the amount of output produced at a defined workload based on some unit of production. To
control the overall plan, this technique examines general expense categories and not individual line items. This tool helps set priorities and allows decision-making based on a more results-oriented approach. The performance budget is a useful managerial tool because it helps monitor workloads and can compare actual results against the plan.

Performance budget assists managerial decision-making. Its biggest shortcoming is that it only emphasizes output. Performance budgeting will show how much a department produces, but it will not show how well or poorly the department delivers the service.

(iii) Planning, Programming-Budgeting System (PPBS):

Bourdeaux [2005] observed that PPBS was the third stage of budget development in the United States to refine economic and financial systems. The PPBS approach to budgeting was applied by Robert S. McNamara, U.S. Secretary of defense and former President of the Ford Motor Company, to budgeting in the U.S. Department of Defense. Presented with a budget that specified the proposed allocations to the department by the administrative unit and line items, McNamara insisted that it be reorganized in line with what the money would be used for. Spending which applied to a defense objective had to be grouped into one program, whether funds were to be spent by the Navy, the Air Force, or the land forces. Although part of the purpose of this exercise was to get the spending plans to make sense, the process also increased the leverage of the secretary in relation to the individual armed services [Nathan 2000].

In 1965, President Lyndon Johnson directed all federal agencies to apply the PPBS approach to the entire budgetary process [Folscher, 2007]. Agencies were asked to identify their objectives and different methods of achieving the objectives. The different methods were then cost and submitted to systematic comparison of their efficiency and effectiveness.

However, Joshi and Raja [1988] list the following limitations of the PPBS. (i). PPBS focuses on what will be done and not how to do it; (ii). Budgeting as defined by PPBS is cost calculations based on the decisions made in the planning and programming steps, but in practice many policy decisions and alternatives are to be evaluated during actual budget
preparation; (iii) It does not provide an operating tool to the line managers to implement policy and program decisions; (iv) It does not provide a mechanism to evaluate the impact of various funding; and (vi) It focuses primarily on new programs of major increase in the ongoing programs. It does not have a formal methodology to transform policies and objectives into an efficient operating plan and budget.

(iv) Zero Based Budgeting (ZBB):

The origin of the concept of Zero Base Budgeting can be traced back to the year 1924 when the noted English authority E.Hilton Young had emphasized the need for annual re-justification of budget programs. [Joshi and Raja, 1988]. The first attempt in Zero Base Budgeting was made by the Department of Agriculture, USA in 1962, When Budget Director Bell had suggested that each program should be justified from ‘Zero’ and Secretary, Orville Freeman decided to make his fiscal year 1963-64 ‘Zero Base Budget’ [Wholey, Joseph, 1979; Pyhrr, 1973]:

The use of ZBB has several advantages: (i) ZBB encourages organizational assessment by forcing department heads to critically assess their departments; (ii) It allows for departmental involvement and, thus, more satisfied workers; and (iii) It forces decision-makers to come up with alternative implementation techniques and establish objectives.

Joshi [1987] identifies the following main problems of adopting ZBB: (i). Voluminous paper work; (ii) More time and efforts; (iii) Resistance to change because ZBB threatens managers; and (iv) Difficulty in ranking of interrelated decision packages.

Both PPBS and ZBB were attempts to make public budgeting a pure, comprehensive, rational undertaking, although the first put emphasis on cost-benefit analyses while the second was more concerned with workload measurements. Both failed because, as Nobel Prize winner Herbert A. Simon has argued that there are cognitive limits to decision makers’ ability to consider all possible options. These limits force them to consider alternatives selectively, and even then they choose on ideological or political grounds. Like the PPB system, zero-based budgeting was also abandoned as a budgeting technique [Folscher, 2007:123].
(v) Program and Performance Budgeting (PPB):

Another budgeting technique consists of a mix of the favorable parts of other budgeting techniques.

In 1965, the United Nations published *A Manual for Program and Performance Budgeting (PPB)*. This book advocated performance budgeting comprising program structures, a system of accounts and financial management, and a measurement of efficiency [United Nations, 1965]. PPB has a structure that shows programs and departments. Typically, there is a broad service area, and a general and specific program description.

The planning technique lists specific service targets that are well-defined goals for the state to accomplish. Evaluation is complete and provides information about the need for the service, the state’s response, the cost, and the impact of each service or program. Rose [2003: 7] identifies program budgeting and the features are presented in Figure 2.1 as follows:

**FIGURE 2.1**
SALIENT FEATURES OF PPB

- Programming, or the subdivision of the government budget for information purposes into programs and activities representing identifiable units with similar aims or operations;
- Identifying the operational aims of each program and activity for the budget year;
- Budgeting and accounting so that the separate costs and revenues of each program are shown;
- Measuring the outputs and performance of activities so that these can be related to the activities’ costs and to operational aims; and
- Using the relevant data to establish standards and norms so that costs and performance can be evaluated and government resources can be used more efficiently.

The PPB method differs from other budgeting methods in that it examines total resources, and not just the general fund. Control is strengthened because there is a summary of each program, along with a line item chart of accounts. The strongest factor is the PPB’s ability to assist in setting priorities. The technique promotes rational choices by comparing a service cost balance. The PPB is a useful managerial tool because it provides regular performance reports, as well as detailed financial reports. The theoretical foundations of PPB have been delineated under: (i) The Origin; (ii)
The Concept: (iii) The Principles; (iv) The Model; (v) The Phases; (vi) The Benefits; and (vii) The Operational Challenges.

(i) The Origin:

Dean [1986:3] observes that the PPB is an improved system of government budgeting, which was developed in USA in the 1950s and 1960s and it was the subject of the United Nations Manual in 1965. However, performance measurement as an integral mechanism for planning, management and budgeting is an old idea. Poister and Streib [1999:325] observe that measuring workload and worker efficiency was clearly part of the scientific management approach at the turn of the century.” Program and performance budget (PPB) is also simply a repackaging of old techniques. “The idea of separating administration from politics is more clearly expressed in Reinventing Government (is not steering versus rowing a dichotomy?) and in contemporary attack on ‘top-town’ democracy than it is in Wilson or Good now, White or Herring, Merriam or Dimock” [Lynn, 2001: 155]. Further, Rosenbloom [2001:164] observes: “Many of [re-inventors’] ideas are much closer to those associated with public administration from, the 1870s through the 1930s than those that have been developed since the 1940s.”

In addition to the spirit of PPB being used since a long time, the term has evidenced the usage of different terminologies. In this regard, Kim [2007:187] summarizes the development and usage of these terminologies in these worlds: “The term ‘performance budgeting’ and later ‘program budgeting’ as well as ‘planning, programming, and budgeting system’ were first used, and to a certain degree practiced in the United States during the 1950s and 1960s. In the late 1980s and early 1990s, the same concepts with a few and marginal additions attracted several other OECD, as well as a limited number of developing countries. In the new round, some new titles such as ‘output and outcome budgeting,’ but in a wider context, and more recently the same as an integrated element of a ‘medium-term expenditure framework,’ were added to the terminology while the concepts by and large remained the same.”
(ii) The Concept:

Since the middle of the twentieth century, the pressure to spend more effectively and develop better budgeting techniques has resulted in an almost universal acceptance that budgeting is not only about planning for inputs, but it is also about planning for the results that governments want to achieve.

The concept of PPB has assumed significance in the recent past, as it constitutes an integral part of the processes of reform in financial administration. This budget radically differs from the traditional line-item budget. The PPB undertakes allocation of expenditure by reference to particular objectives and functions. In other words, a clear shift from itemized expenditure to functions or activities is discernible in this type of budgeting.

In the words of the Administrative Reforms Commission [1968] of India, performance budget is “a technique for presenting government’s operation in terms of functions, programs, activities and projects.” It presents public expenditure in terms of functions, programs and activities. Thus it clearly differs from the line-item budget, which emphasizes on staff, furniture, equipments, etc.

Young [2003] observes: “PPB is the allocation of funds to achieve programmatic goals and objectives as well as some indication or measurement of work, efficiency, and/or effectiveness.”

Finally, Joyce and Sieg [2005] view PPB as “a continuum that involves the availability and use of performance information at each of the various stages of the budget process – budget preparation, budget approval, budget execution, and audit and evaluation.” This definition is somewhat broader than the first two, emphasizing the importance of information availability and use throughout a very fluid budget process.

The technique of PPB divides the whole gamut of governmental operations into functions, programs, and activities/projects. A function represents a major division of the total efforts of the government such as education, health, agriculture, industry, etc. Programs are broad categories within a function that identifying the end products or accomplishments towards the fulfillment of the objectives of a function. They broadly reflect the responsibilities of major organizational units of the government. Activities constitute the collection of homogenous types of work in a program with a purpose to contribute toward the
accomplishment of the programs. The term, ‘project’ is generally used to distinguish such activities as are of a capital nature. For example, education is a function, university education is a program, training of university teachers is an activity and the construction of a building and equipping the laboratories constitute a project. These conceptual components of PPB are presented in Figure 2.2.

**FIGURE 2.2**
COMPONENTS OF PPB

<table>
<thead>
<tr>
<th>Component</th>
<th>Focus</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function</td>
<td>A major division or sector of total efforts of the government</td>
<td>Social services</td>
</tr>
<tr>
<td>Program</td>
<td>A composite set of collective efforts and activities designed to accomplish a particular objective</td>
<td>Education</td>
</tr>
<tr>
<td>Activity</td>
<td>A collection of homogenous types of work in a program, the purpose of which is to contribute to the accomplishment of the objective</td>
<td>Training of school teachers</td>
</tr>
<tr>
<td>Project</td>
<td>An activity of capital nature</td>
<td>Building of a school</td>
</tr>
<tr>
<td>Objective</td>
<td>The goal to which all the activities within a program are directed and the end product of the goal related to the basic mission of the agency.</td>
<td>Improving education</td>
</tr>
</tbody>
</table>

Source: Dean [1986: 268].

(iii) The Principles:

The New Public Management (NPM) focuses on achieving results with cost effectiveness [Piotrowski and Rosenbloom, 2002: 643]. It aims to institute an incentive mechanism in the budgetary process. In conventional line-item budgeting systems, such incentive mechanisms do not exist. Few could reject the observation that conventional budgeting with its primary focus on control promotes destructive budget maximizing competition among agencies, and most importantly discourages cost-saving efforts. Hence McNab and Melese [2003: 78] observe: “Public managers are penalized for identifying and implementing cost-saving techniques [in that] departments that realize cost savings through process improvement or managerial reforms may have their budgets cut in the following fiscal year and resources transferred to organizations that met or exceeded their funding levels,” By shifting emphasis from inputs to outcomes and results, PPB attempts to subdue the so-called
'use it or lose it' culture and create an incentive structure based on results and cost-effectiveness.

(iv) The Model:

What is new in PPB compared to conventional budgeting? Kong [2005:10] identifies key components of a budgeting system, their interrelations and shows the differences among various budgeting systems and these key components are presented in Figure 2.3. A typical public budgeting system consists of resource allocation, organizational management, and customers. The conventional line-item budgets focus mainly on resource allocation including financial resources, human resources, facilities, equipment, etc. However, the early versions of PPB focused on organizational components including mission statement, policy goals/objectives, core/ sub-services, and activities. In the 1990s, the focus of PPB has shifted to outcomes, service quality, and customer/citizen satisfaction.

FIGURE 2.3
THE FOCUS OF BUDGETING: TRADITIONAL VS. PERFORMANCE BUDGET

Source: Adopted from Kong [2005:10].

Performance budgeting is a system of budgeting that presents the purpose and objectives for which funds are required, the costs of programs and associated activities proposed for achieving those objectives and the outputs to be produced or services to be rendered under each program. Further, Shah and Shen [2007:144] bring out a comprehensive performance budgeting system
quantifying the entire results-based chain as set out in Figure 2.4. The PPB consists of the following: (a) Inputs and intermediate inputs—resources to produce outputs; (b) Outputs—quantity and quality of goods and services produced; (c) Outcome—progress in achieving program objectives; (d) Impact—program goals; and (e) Reach—people who benefit or are hurt by a program.

In comparison with traditional line-item budgeting, PPB allows for more flexible use of fiscal resources and shifts the focus from inputs to results. A performance budget focuses on the results to be achieved. With its program structure, the performance budget changes the focus of discussion from detailed line-items to the broader objectives and performance of public.

![Figure 2.4 STEPS IN PPB](image)

### FIGURE 2.4 STEPS IN PPB

<table>
<thead>
<tr>
<th>Program objectives</th>
<th>Inputs</th>
<th>Intermediate inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve quantity, quality, and access to education services</td>
<td>Educational spending by age, gender, urban/rural; spending by grade level, and number of teachers, staff, facilities, tools, books</td>
<td>Enrollment, student–teacher ratio, class size</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impact</th>
<th>Reach</th>
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<td>Enrollment, student–teacher ratio, class size</td>
<td></td>
</tr>
</tbody>
</table>


(v) The Phases:

Following are the phases of performance budget: (a) Establishing a functional classification of all governmental operations; (b) Developing a system of cost-accounting and financial management which may accord with the functional classification; (c) Establishing quantitative hours and yardsticks of performance and unit costs; (d) Evolving under each program and activity objective system of reporting and evaluation which in its turn provides timely feedback to the program managers.
(vi) The Benefits:

Benefits in the planning and management of service delivery are already perceptible in countries that have adopted performance budgeting and management most successfully. According to Roberts [2003], the benefits of PPB include the following: (a) Greater policy focus and prioritization in resource allocation, program planning and management, because bids for resources and their allocations have to be justified in terms of national and sector strategies; (b) Better coherence between achievement aspirations and resources available, and greater realism in target setting, achieved, over time, through experience of difficulties and the obligation to render account of performance; (c) Stronger motivation on the part of line managers and service providers, thanks to consultation about target setting, clearer communication of objectives and targets to be met, and the obligation on service providers to report results; and (d) More effective diagnosis and treatment of cases of underperformance due to more systematic monitoring and evaluation of results.

The history of program and performance budgeting is one of high hopes and disappointing achievement. The high hopes are exemplified in Malaysia’s treasury circular No.5 of 1968, which leads the following benefits from PPB as quoted in Dean [1986]: (a) More than ever before, it will make the budget an instrument of expressing government policy on each governmental program; (b) It will be a more useful document to the taxpayers and members of parliament since the major emphasis will be on programs and activities, work to be accomplished and its cost; (c) It will furnish parliament with better information with which they can judge the effectiveness of the management of each ministry /department; and (d) It will require government administration and managers at all levels to think and plan in terms of program objectives and the most efficient and economical way of attaining them.

With a focus on objectives and programs most of which cannot be accomplished within a year, the PPB introduces the valuable element of long range planning on annual operating expenses as well as development expenditures: (a) With major emphasis on programs it will facilitate and
improve coordination between economic planning and financial planning; (b) With the introduction of systematic and officials with managerial tools heretofore unavailable to them; and (c) With the major focus on programs facilitating the solution of the ever-present problem that of setting budget priorities as between competing programs.

Harrison [2003] also observes that PPB is important to governments for a number of reasons: (a) Providing accountability to the public; (b) Driving redesign of programs (focus on improvements); (c) Helping rationalize budget allocations (using performance information as a basis of evidence); (d) Improving understanding of crosscutting programs in government; (e) Helping agencies link their daily activities to overall government outcomes and similar activities of other agencies; (f) Comparing cost effectiveness between programs; and (g) Helping align government spending with overall goals.

Lastly, the Administrative Reforms Commission of India [1968] also visualized the following benefits from PPB: (a) To present more clearly the purposes and to present more clearly the purposes and objectives for which the funds are sought and, to bring out the programs and accomplishments in financial terms; (b) To help a better understanding and better review of the budget by the legislature; and (c) To improve the formulation of the budget and to facilitate the process of decision-making at all levels of Government.

On the whole, PPB enhances the accountability of the management and provides an additional tool for management control of financial operations. It renders performance audit more purposeful and effective.

(vii) The Operational Challenges:

With all these positive outcomes from PPB, there are some theoretical and operational challenges in applying PPB in the public sector.

First, the results-oriented NPM oversimplifies and downgrades the role of the key participants in the process. As Denhardt and Denhardt [2000:550] argue that the reinvented and market-oriented NPM will always win when it is compared to the old public administration, but will face many challenges when “contrasted with what we term the ‘New Public Service,’ a set of ideas about the role of public administration in the governance system that places citizens at the center.” Vigoda [2002] joins them by proposing that citizens be treated
as equal partners rather than passive customers in the process of governance. Feldman and Khademian criticize the passive role of public managers assumed in the NPM: “Managers are accountable not only for policy outcomes, but also for the appropriateness of the relationships they create and support” [Vigoda, 2002: 547]. While theoretical debates articulate the historical context of reform, they may do little in practice.

Second, results-oriented public management ignores or downgrades non-mission based, democratic-constitutional values [Kliman and Fisher, 1995a and 1995b; Piotrowski and Rosenbloom, 2002]. During the last six decades of the twentieth century, a great deal of legislative and judicial effort was devoted to making public administration more transparent, representative, participatory, and protective of individual rights. Although the importance of these values is widely recognized, the NPR considered the processes associated with them encumbering. Its rhetoric tended to subordinate them to the interests of achieving mission-based results [Piotrowski and Rosenbloom, 2002: 653]. Radin [2000:133] also argues that the GPRA’s “use of administrative rhetoric has caused it to collide with institutional, functional, and policy/political constraints that are part of the American decision-making system.”

Third, PPB lacks operational principles of budget allocation to deserve its name. Who determines ‘how good is good?’ In a typical political environment of public budgeting, it is not an easy task to set up agreeable outcome targets among various stakeholders. Even if agreeable outcome targets are set up, it will be difficult to determine who (or what program) is responsible for the outcomes because of some causal reasoning factors, such as rival causes, time lag, and uncontrollability. There are many rival causes that may contribute to the outcomes. When a multiple number of programs contribute to an outcome, evaluators may find it difficult to determine which program is contributing to the outcome. For some programs, the impact may not be seen for years to come. This complicates the allocation formula among multiple program managers, who have worked on the same program over the past years. The time-lag factor also invalidates annual incentive systems, or induces managers to produce short-term outcomes. And some outcomes are
not within their direct control [Stiefel et al., 1999]. If this is the case, it is not proper to impose penalties or even to provide incentives.

Fourth, the ambiguity of budget allocation is compounded by the undying practice of annual appropriations, particularly at the federal level. McNab and Melese [2003:75] argue that it is unlikely to have a positive influence on federal budgeting for years to come unless “the GPRA significantly alters the focus of federal budgeting from annual appropriations and obligations to near- and long-term operational and strategic objectives.” Kliman and Fisher [1995a and 1995b] also draw the same conclusions on the lines of McNab and Melese. Willoughby and Melkers [2000:119] also find that “Three of four states in which budgeters believe that PBB has been most effective, operate with a biennium budget.”

Finally and foremost, there is no clear equation between the level of performance and the need for funds. In this regard, Caiden [1998:44] observes that: “If a program is doing badly, and showing few results, does this mean it should be terminated, or provided with more resources to do a better job? Conversely, if a program is doing well and achieving its objectives, should it be provided with more resources to do an even better job, or should it be cut back on the grounds that its purpose has been achieved and it is no longer needed?”

**GOVERNMENT ACCOUNTING SYSTEMS**

It is interesting to note that both private and government sectors used cash accounting until the sixteenth century with a thrust on single entry system. While the government sector has continued to use cash basis of accounting and reporting, the private sector has developed and adopted GAAP, which emphasizes accrual accounting [ADB, 2003:3]. It is held that the cash accounting system of government should be as it is in view of the environment in which the government sector operates. However, this argument seems to be not tenable. At the outset, it should be clear that introducing a program structure to government budgeting requires the introduction of a new classification to the budget within which and in relation to other budget classifications, concepts such as program target, output, outcome, performance measurement, etc., can be designed, implemented,
and monitored. The government accounting systems are analyzed under budget classifications, chart of accounts, and budget and accounting.

BUDGET CLASSIFICATIONS

Budget classification is one of the fundamental building blocks of a sound budget management system, as it determines the manner in which the budget is classified and presented, and as such has a direct impact on the transparency and coherence of the budget. In this regard, Jacobs et al. [2008:2] observe: In countries where the budget nomenclature is weak, upgrading the budget classification system should itself be considered a basic step and indeed a pre-condition for embarking on other reforms of Public Financial Management (PFM) such as introducing a Medium-Term Expenditure Framework (MTEF), performance budgeting, and a computerized financial information system.

It is important to note that a good budget classification system should respond to the following requirements:

- **Legal**: Provide a legal basis and structure for the approval of the government budget by legislature.
- **Administrative**: Identify the responsibility and authority of all players in public finances within the executive branch, including central agencies such as finance or planning and budgeting ministries, as well as line ministries and government organizations, also called spending agencies.
- **Financial**: Facilitate government budgeting, accounting, reporting, and auditing by making detailed classification of revenues and expenditures, and integrating the same into the government chart of accounts.
- **Analytical**: Facilitate the analysis of the impact of government transactions in the economy as a whole (macro-fiscal analysis) and in the functions in which governments decide to intervene through regulatory activities or direct delivery of services or both (functional policy and program analysis).
- **Managerial**: Improve efficiency in resource use on delivering services, by providing and monitoring performance indicators, where such indicators can be meaningfully developed.
A sound system of budget classification should at a minimum, comprise of a classification of revenues into various categories; and an administrative, economic, and functional classification of expenditures. The administrative classification identifies the entity that is responsible for managing the public funds concerned – such as for the ministry of education and ministry of health or, at a lower level, schools and hospitals etc. The economic classification identifies the type of expenditure incurred – for example, salaries, goods and services, transfers and interest payments, or capital spending. The functional classification categorizes expenditure according to the purposes and objectives for which they are intended.

To address these requirements, four types of budget classifications have been developed, which are used with varying degree of quality in different countries [IMF: 2001, 79:131]. These classifications are: (i) Organizational or Administrative; (ii) Object / Accounting/ Economic; (iii) Functional; (iv) Cross-Classification (functional with economic); and (v) Program or Operational Classification. These classifications and their relevance to program budgeting are elaborated below.

(i) Organizational or Administrative Classification:

This type of classification identifies who is responsible for executing government revenue and expenditure transactions, and establishes administrative responsibility for disbursement and receipt of public funds. It also identifies transactions with the responsible units and subunits within the organizational hierarchy. Although all countries have such budget classifications, they widely differ in coverage, as well as the inclusion of the level of organizations in their budget documentation and appropriation structure. In Yemen, all government institutions (Ministries, organizations, independent offices and bureaus, funds and any other government institutional units that are not recognized as a public corporation) should be included in the government budget as part of its organizational classification. The IMF [2001:75], in its Government Financial Statistics Manual (GFSM) has suggested clear definitions for the organizational coverage of the general government functions and its sub-functions, in the government budget and accounting systems, which can be used as a useful guide.
(ii) Object / Accounting/ Economic Classification:

This type of classification identifies the source, legal base, and nature of inputs to be purchased for providing services or outputs, as well as the nature of budgetary transfers within a given spending agency and government as a whole. It creates a basis for classifying all expenditures for the purposes of budget preparation and review (along with other costing techniques where applicable), accounting, reporting, auditing, and finally for economic analysis of government transactions. The new outcome of the classifications is that the object classification can be reformed to serve the economic analysis of government transactions and also prepare for the introduction of accrual accounting if a government wishes to introduce such an accounting system for government operations.

The 1986 GFSM, and more recently the 2001 GFSM, have provided a useful structure for economic classification of government transactions, and a framework for reforming object/economic classification. There are substantial differences between the 1986 and 2001 GFS manuals on this type of classification. While the former was on a cash-based accounting system, the latter introduces balance sheet and net worth concepts to government operations, which requires accrual accounting.

As for reforming the object/economic classification in a cash accounting system, many managers in spending agencies may argue that using a standard classification of their inputs is not a matter of concern, and any input classification may appear acceptable to them. This is true, but for the purposes of ex ante economic analysis of government transactions, as well as the necessity of using a unified chart of accounts in government accounting, they should use a standard input/economic/ accounting classification, developed by a central agency. As for accrual accounting and its relation with program budgeting, it should be noted that while program budgeting concepts and practice are decades old, accrual accounting has only come to discussion in the last few years, mainly in the context of an economic analysis of government budget and reporting system [IMF,2001]. For a complete costing of a program, an activity or a project, accrual accounting has much to offer, but mostly in an ex post accounting phase. At the same time, a few OECD countries have attempted to extend accrual
accounting to accrual budgeting to unify budgeting and accounting classifications. However, the results of such attempts are yet to be known, as for one thing, the sophisticated ex post features of accrual accounting when extended to ex ante budgeting, may not be accepted or appreciated by legislatures and public. These features include assumptions and pre-determined formulas used for valuation of government non-marketable assets, cost of using a government non-marketable asset (depreciation), or even the presence of store management systems to differentiate real use of goods and services from their purchase price.

In the Republic of Yemen, there has been a mixing of functional and economic categories in the classification in Yemen’s budget. The budget has been prepared using a classification system that does not have independent functional or economic analysis. Accordingly, the classification is not in line with the international standard laid down in the GFSM 2001 IMF thereby undermining the development of a PFM system that can be benchmarked against international best practices. With assistance from the IMF, in the last 4 years, considerable work has been done to prepare a revised classification structure that corresponds to the GFSM 2001 in Yemen.

It is important to note that economic and administrative classifications provide different kinds of information [Jacobs et al 2008:4]. The former provides data on types of revenues or expenditures (e.g., salaries or goods and services), while the latter provides data on the public sector organizations that incur expenditures or receive revenues. An administrative classification of expenditure is needed to identify responsibilities for the main blocks of public expenditure and for day-to-day administration of the budget. Expenditures may be divided into separate sub-categories for each Ministry, Department, or public entity.

(iii) Functional Classification:

Functional classification identifies the purpose of government expenditures. The primary objective of this classification is to provide a strategic overview of the allocation of government resources among different functions and sub functions. Functional classification indicates the main areas of the government's involvement in the regulation and direct provision of
services for different functions. This classification groups the expenditures according to the government’s functions rather than its organizational units or its input/economic classification. Examples of functional classification include health services, public order and safety, housing and community amenities, and alike. Some functions may be implemented by one, two, or more spending agencies for political, administrative, and technical reasons. In 1986, the IMF provided a standard functional classification for organizing government expenditures. That model was based on the United Nation’s 1984 publication on the Classification of Functions of Government (COFOG). In 1999, the United Nations’ Statistical Division revised this publication. Accordingly, the 2001 IMF GFSM provided a revised model for functional classification, which was based on the revised COFOG.

The 2001 GFSM suggests 10 main functions, each divided into a number of functions and some, but not all, functions are further divided into a few sub-functions. This standard classification provides a comprehensive list of government operations worldwide, from which any country may choose as it finds suitable to its tasks and functions. Depending on the size and nature of government operations of each country, the classification at function and/or sub-function levels provides a workable functional category, which could be equal to the main programs in a program structure. The functions or sub-functions can provide a suitable classification for any expenditure projection at the initial stage of budget preparation. The Classification of the Functions of Government\(^1\) (COFOG) established by the United Nations is a widely accepted international standard in this field and the classification system is presented in Figure 2.5.

---

1. This framework was developed jointly by the IMF, the United Nations (UN), the Organization for Economic Cooperation and Development (OECD), and the Statistical Office of the European Union (Eurostat). GFSM 2001 also incorporates the “Classification of Functions of Government” (COFOG) of the OECD and the UN.
The revised budget classification system in Yemen based on the GFSM 2001 has been prepared with external technical assistance. The training needs for the introduction of the revised budget classification need to be met after development of an appropriate training program. The GFSM 2001-based economic classification is planned to be used for appropriation purposes, as is the GFSM 2001-based functional classification until an independent program classification is introduced, after which the functional classification is planned to be used for reporting purposes only. A GFSM 2001-compliant classification of balances and transactions of financial assets and liabilities by sectors is intended to be introduced for reporting purposes only.
(iv) Cross-Classification (Functional with Economic):

The economic and functional classifications of expense can be cross-classified as illustrated in Figure 2.6, which highlights a column for acquisitions of non-financial assets in addition to columns for each type of expense.

![FIGURE 2.6]

<table>
<thead>
<tr>
<th>PROGRAM/OPERATIONAL CLASSIFICATION</th>
<th>ACQUISITION OF NON-FINANCIAL ASSETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General public services</td>
<td></td>
</tr>
<tr>
<td>Defense</td>
<td></td>
</tr>
<tr>
<td>Public order and safety</td>
<td></td>
</tr>
<tr>
<td>Economic affairs</td>
<td></td>
</tr>
<tr>
<td>Environmental protection</td>
<td></td>
</tr>
<tr>
<td>Housing and community amenities</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td></td>
</tr>
<tr>
<td>Recreation, culture, and religion</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Social protection</td>
<td></td>
</tr>
</tbody>
</table>

[IMF, 2001:78].

(v) Program or Operational Classification:

In government budgeting literature, the terms ‘program’ and ‘program structure’ have been used for different and, at times, in conflicting meanings. While all agree that a program is a collection of related government operations that seek to achieve common objectives of a government policy or an organization, some use the term to only emphasize managerial
performance measurement without being able to properly define and quantify what needs to be achieved. Some emphasize the managerial flexibility of the budget execution within a block vote, again in the context of achieving program targets with a flexible choice of input mix. Some link the term to Medium Term Expenditure Framework (MTEF) and some find it a way to modernize government budgeting and divert attention from financial controls to operational controls and achievements, mainly to get away from the unsuccessful traditional, or so-called ‘Line-item budgeting.’ Because of different usages of the term ‘program’ in different countries, there is no unified definition of a program, and the term is normally defined according to its practical usage in each budgetary system. A program may refer to a multi-organizational and broad set of operations or to a small project within an organizational program. Here, the term sub-function is used for a selection of government operations at a broad level and the terms ‘program’ or ‘organizational program’ are reserved to identify a collection of interrelated operations within an organization, under a sub-function.

The program or operational classification may appear to be a sort of extended functional classification. This is true, but in fact, the programs refer to the spending agencies’ operational packages in the form of recurrent activities and/or investment projects within a program hierarchy that flows from the functional classification. While an organizational program can exist without a standard functional classification, it is strongly advisable to align a program classification to the functional classification to facilitate relating of government operations to its broader objectives.

In this context, a ‘program’ can be defined as any suitable and meaningful group of recurrent activities and investment projects under a program manager, which consumes resources (inputs) to contribute toward a common result. ‘Recurrent activity’ is defined as a package of ongoing and reoccurring operations, which consumes inputs and produces consumable goods or services, while ‘investment project’ refers to a temporary capital work, which has limited time for operations and when completed, adds to the physical assets of an organization.

In this context, a program/operational classification can be regarded as an extension of functional classification within a specific spending agency with
established responsibility of delivering a part or all sub-function results, depending on the operational coverage of a program.

The program or operational classification helps to improve the quality of budgeting for the purposes of analyzing, accepting, rejecting, removing or modifying an on-going or new recurrent activity or investment project in the context of a program’s objectives. This cannot be achieved by a broad functional, or any organizational, or a detailed object or economic classification. It is, therefore, important to amplify the functional classification of expenditure into further operational categories (i.e., sub-functions, programs, recurrent activities, and investment projects) to design a budget appropriation structure on the basis of which funds would be budgeted, approved, released, and accounted for.

This type of classification is also meant to link inputs (object/economic classification) of the cost centers (individual recurrent activities or investment projects) to their outputs and other performance indicators, and more importantly to the outcomes and results of programs and sub-functions. In other words, while a program classification makes functional data firmer, it translates these data into specific operations, and integrates them into the government budget and accounting system, thereby improving the quality of budgeting, i.e., a well-analyzed selection of operations for funding. Recurrent activities and investment projects constitute the smallest operational classifications under a program, for which object/economic classification of expenditure should be budgeted, implemented, recorded, and reported.

Regardless of the presence of a program structure in the budget, in most countries, spending agencies have their work programs in general terms. However, typically, these work programs and their objectives remain vague, and are normally lost in the process of budget preparation, by using organizational and object/economic classifications only. As a result, inputs and outputs, and understandably, outcomes and results, remain in most cases, unrelated. Obviously, these isolated and broad work programs are not sufficient for a proper analysis of government operations and allocation of its resources to spending agencies. A detailed program or operational classification, therefore, should be introduced in each spending agency with the aim to relate inputs and their costs (expenditures) to specific program
objectives. This will also help establish analysis and performance accountability for government operations.

Normally, in all countries, investment or development budgets are classified on a project basis, which is a suitable means for introducing a program structure. But in practice, because recurrent budgets are normally based on only organizational and object classifications, the investment projects remain unrelated to the organization’s recurrent operations in a program context. Moreover, since in some countries the investment or development budgets are prepared separately from the recurrent budget, any comprehensive introduction of a program structure becomes impractical. In an advanced budgeting system in which the programming of operations in the spending agencies plays an important role in the preparation of a budget, the operational classification, that is, defining the programs, and identifying the recurrent activities and investment projects within each program plays an important role in the analysis of government policies and operations.

**CHART OF ACCOUNTS**

The introduction of the new financial management system, in conjunction with revised expenditure processes, requires a new code structure Chart of Accounts (COA). COA is a classification of transactions and events (payments, revenues, depreciation, losses, etc.) according to their economic, legal, or accounting nature. It defines the organization of the ledgers kept by the accountants [UAEs, 2005]. Under a cash accounting system, the Chart of Accounts is often limited to budgetary accounts for payments, a few accounts for posting internal financial transactions and financing operations, and eventually a commitment account (or ancillary books for commitments). Under modified or full accrual accounting, expenditures at the verification stage are recognized as liabilities. Hence they must be recorded in a ledger, which includes accounts for assets, liabilities, expenditures, revenues, etc [Schiavo-Campo, and Daniel, 1999].

To accommodate these requirements a coding structure that covers organizational arrangements, including the introduction of a program structure for PPB, economic classification and functional classification are required. According to Diamond [2006], a number of developing countries use a single-
entry accounting system in a manual mode, with the budgeting and accounting system on a cash basis. Off-the-shelf systems are normally designed for accrual accounting.

BUDGET AND ACCOUNTING

Budget reforms are always preceded by accounting reforms. Such accounting reforms are fundamental to the implementation of PPB. It is also important to note that the heart of accounting reforms lies in the adoption of accrual accounting, the relevance of which is succinctly put forth by Rose [2003:17]: “In general one could argue that, under performance management, input-oriented budgets are turned into performance budgets, cash-based accounting systems are changed into accrual based cost accounting systems or performance reporting systems, and compliance and financial audits are complemented by performance audits and evaluations.” The challenge of integrating accounting in budget reforms has been presented under (i) Integration of Budget and Accrual Accounting; (ii) Accounting Rules; (iii) Determination of Capital Costs; and (iv) Cost Measures.

(i) Integration of Budget and Accrual Accounting:

The shift towards a comprehensive accruals oriented public sector accounting and financial reporting structure began to take place in the late 1980s, most notably in Australia and New Zealand [Funnel and Cooper: 1998; Ball et al.: 1999; Christensen: 2002; and Pallot: 2002]. By 2002, it was estimated that half of Organization for Economic Co-operation and Development (OECD) member countries were using some form of accrual accounting in their financial reporting [Mathesom: 2002].

Basically, cash-based accounting system is unable to satisfy the requirements of the PPB. Therefore the accounting system should be developed too in order to provide the required information. The crucial issue in achieving budget reforms, led by PPB, is the accounting system as an infrastructure facility to achieve the budget reforms. Ouda [2003] and Ashour [2006] observe that there is a strong relationship between the budget system and accounting and both of them complement each other. Further, they opin
that (i) the budget system should be compatible with the accounting system, which is used to carry out the budget and hence the basis on which the budget is prepared, should be consistent with the basis of accounting used; and (ii) the budget reform involves accounting reform to support it. As observed earlier, the budget reforms are essentially founded on accounting reforms in the sense that the present line-item budget should give place to PPB through a shift from cash based accounting to accrual accounting both in budget presentation and transaction recording [Davis: 2003; and Diamond: 2006]. Basically, cash-based

**FIGURE 2.7**

RELATIONSHIP BETWEEN THE BUDGET AND ACCOUNTING SYSTEM

Legislations and Financial Acts

Government Accounting System

General Budget of the State

Modernization of GAS

- Programs-based costing
- Accrual Accounting
- Chart of Accounts
- Final accounting & records

Modernization of Budget

- Function Classification (programs, activities)
- Medium-term of Expenditures
- Performance Reports of Administration & Finance
- Control & Performance Evaluation

Outputs

Reports, finance statistics & results of activities objectives execution
[Accounting & Financial Management Information System]

Outputs

Source: Al-Husaini and Gowda [2008].
accounting system is unable to satisfy the requirements of the PPB. Therefore, the accounting system should be developed too in order to provide the required information. In the background of the above analysis, Al-Hussaini and Gowda [2008] have developed an accounting model highlighting the relationship between the budget and accounting system and this model is presented in Figure 2.7.

(ii) Accounting Rules:

Accounting rules for recording flows and stocks in the GFS system are designed to ensure that the data generated by the system conform to accepted standards for the compilation of economic statistics.

Double-entry accounting is used for recording flows. In double-entry system, each flow gives rise to two equal-value entries, traditionally referred to as a credit entry and a debit entry. A debit is an increase in an asset, a decrease in a liability, or a decrease in net worth. A credit is a decrease in an asset, an increase in a liability, or an increase in net worth. Revenue entries, which represent an increase in net worth are recorded [IMF, 2001:28].

The effectiveness of the budget at the macro level and the PPB at the micro level essentially depends upon the adoption of accrual accounting, which is the heart of the Generally Accepted Accounting Principles (GAAP). The IMF [2001:28] observes: “Once a flow has been identified, the time at which it occurred must be determined so that the results of all flows within a given accounting period can be compiled. Although this section is concerned with the time assigned to flows, the integrated nature of the system means that the stocks recorded on the balance sheet are also influenced by the timing of flows.”

Matheson [2002] succinctly presents the concept of accrual accounting in these words in the context of adopting accrual accounting in government sector after making observation from two relevant sources: “First, revenues are recognized when services are rendered, not when cash is received. Expenses are recognized when economic resources are used, rather than when they are paid in cash, [IFAC, 2002]. After a government has received services, the related obligations (e.g., employee retirement benefits) are also reported as expenses for the current period and as liabilities in the balance
sheet. Second, all economic resources are regarded as assets in the balance sheet. For example, New Zealand recognizes its highways and other infrastructure as assets, and records their depreciation as expense as well. Third, all government obligations for services received are commitments made are reported as liabilities in the balance sheet, even if they have funded in the budgetary process.” A cash-based system does not provide information about total costs of government activities. Only an accrual-based operating statement provides information on the total costs of resources used to deliver government services, which is essential information for government decision makers [Mellor, 1996].”

IMF [2001] provides four alternative bases to determine the time of recording: the accrual basis, the due-for-payment basis, the commitments basis, and the cash basis and these bases are presented in Figure 2.8.

**FIGURE 2.8
BASES OF RECORDING FLOWS**

<table>
<thead>
<tr>
<th>Basis</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accrual basis</td>
<td>Flows are recorded at the time economic value is created, transformed, exchanged, transferred, or extinguished. In other words, the effects of economic events are recorded in the period in which they occur, irrespective of whether cash was received or paid or was due to be received or paid. Nevertheless, the time at which the economic events occur is not always clear. In general, the time attributed to events is the time at which ownership of goods changes, services are provided, the obligation to pay taxes is created, the claim to a social benefit payment is established, or other unconditional claims are established.</td>
</tr>
<tr>
<td>Due-for-payment basis</td>
<td>Flows that give rise to cash payments are recorded at the latest times they can be paid without incurring additional charges or penalties or, if sooner, when the cash payment is made. If a payment is made after it is due to be paid, then the gap is bridged by recording a receivable, just as with the accrual basis. If a payment is made before it is due, then no receivable is necessary. Depending on the goals of the accounting system, non-monetary flows may or may not be recorded.</td>
</tr>
<tr>
<td>Commitments basis</td>
<td>Flows are recorded when a general government unit has committed itself to a transaction. Normally, this basis applies only to purchases of assets, goods, and services, including compensation of employees. The time of recording generally is when a purchase order is issued by the general government unit. Flows for which the commitments basis is not applicable must be recorded on one of the other three bases. In-kind transactions may or may not be recorded.</td>
</tr>
<tr>
<td>Cash basis</td>
<td>Flows are recorded when cash is received or disbursed. Although non-monetary flows can be recorded, most accounting systems using the cash basis do not record non-monetary flows because the focus is on cash management rather than resource flows.</td>
</tr>
</tbody>
</table>

Source: IMF [2001:28-29].
Further, IMF [2001:29] brings out the relevance of accrual accounting in these words: “The Government Financial Statistics (GFS) system uses the accrual basis, primarily because the time of recording matches the time of the actual resource flows. As a result, the accrual basis provides the best estimate of the macroeconomic impact of government fiscal policy. The accrual basis provides the most comprehensive information because all resource flows are recorded, including internal transactions, in-kind transactions, and other economic flows. The joint use of statistics from two different systems is facilitated greatly by the use of the accrual basis in the GFS system.” Hence the budget reforms should revolve around the adoption of double entry system along with accrual accounting to realize the objectives of PPB.

(iii) Determination of Capital Costs:

Another dimension of PPB implementation is the scientific determination of and accounting for capital costs, which refer to the assets created in the process of not only taking the stock of the government wealth but also the recognition of the costs involved in the ongoing projects. A major challenge lies in the valuation of the assets already created by a government. One of the crucial issues is the base on which the capital costs of already created assets should be used. The problem is greater in the sense that a government may not have records for the assets already owned naturally. This problem may be resolved by valuing the assets at the current market prices both for depreciable assets and non-depreciable assets naturally available to a government. In support of this argument, we may quote IMF [2001:111]: “The value of an asset at any given time is its current market value, which is defined as the amount that would have to be paid to acquire the asset on the valuation date, taking into account its age, condition, and other relevant factors. This amount depends on the economic benefits that the owner of the asset can derive by holding or using it. The remaining benefits expected to be received from some assets diminish with the passage of time, which will reduce the value of the asset, and the value of the remaining benefits may increase or decrease because of changes in prices.” Regarding depreciable assets, the only alternative available to the government to have a
full-fledged accounting system is to make some reasonably correct valuation. From the viewpoint of measuring the capital costs of the proposed projects under PPB, a rational valuation system is readily available in private sector accounting under what are known as GAAP and this source may be used with much objectivity.

(iv) Cost Measures:

Cost measures along with performance measures constitute the two pillars of PPB. Cost measures provide the basic information in measuring cost-efficiency and cost-effectiveness with meaningful insights for benchmarking, privatization, contracting-out, and many market-oriented management reform ideas. Cost efficiency refers to unit costs for output measures while cost-effectiveness refers to unit costs for outcome measures. Cost measures will be more important because indirect and overhead costs have become a much greater portion of total costs while labor cost as a percentage of total cost is decreasing [Brown et al., 1999].

FINANCIAL REPORTING

To make the budget process and the PPB to be effective, the governmental accounting system should follow the following accounting principles: (a) Historical Cost Principles (recording transactions at the original cost); (b) Accrual Accounting (recording transactions as and when they occur instead of as and when cash is received or paid); (c) Matching Principle (measuring sacrifices as expenses and then relating them with revenues as benefits to arrive at surplus or deficit from current operations and then highlighting the current financial position at the end of the period placing all assets, liabilities and the capital contributions of the government with related surplus or deficit); and (d) Full Disclosure Principle (disclosing as much relevant information as possible for taking economic decisions by the users of the information to be made available in the annual report of the government). The concept of government is all inclusive in nature in the sense that the annual report should be brought out at the central level, state level, local body level, departmental level as well as at each project level. In other words,
government accounting encompasses all types of activities of the government to be recorded through the main instruments of operating statement and balance sheet.

In order to implement the above concept of accrual accounting in the government sector both at the macro level for budget making and at the micro level for implementing PPB, the pre-condition is that we move away from cash based accounting to accrual accounting. Hence the whole process of government accounting is to be based on the conceptual framework for financial reporting, which essentially rests on GAAP. Further, the conceptual framework focuses on MATCHING of expenses incurred with revenues earned so that the current operating performance is measured with the basic objective of knowing whether current revenues exceed current expenses leading to surplus or the reverse of it leading to deficit along with the financial position of the government as an economic entity.

**CRITICAL CONDITIONS**

The adoption of PPB has become the core strategy of public expenditure management. Many developed countries have adopted this strategy and the developing countries are on the path towards an efficient public expenditure management. Recent attention to governance and reform success has spawned ideas about factors influencing reform adoption and governance quality. According to Al-husaini and Gowda [2008], the implementation of PPB model in any country depends on three important parameters: (i) The Ability; (ii) The Legislative Support; and (iii) The Acceptance Level. These factors have been delineated below.

(i) The Ability:

Measuring the extent of achieving objectives should be based on performance indicators. So the executive authority’s participation in specifying and choosing the indicator of measureable performance increases the abilities and responsibilities of program managers to execute the specified objectives according to specific criteria, which have been agreed upon earlier.

Choosing the information required for measuring performance requires high analytical and measurement techniques followed by administrative skills
and abilities. All these require the training of the personnel. Perrin [2002] observes that without adequate training, managers and staff members are unlikely to be able to understand the potential value of a results-oriented approach or be able to provide an effective implementation and use. Implementing PPB requires the ability to provide periodical reports, which identify the extent of achievement progress in addition to getting the required information to measure performance and provide a complete database at right time. The progress of Information technology is considered to be the basic infrastructure to successfully implement the PPB. Diamond & Khemani [2006] note that budget execution and accounting processes were/are either manual or supported by very old and inadequately maintained software applications in most developing countries. In nutshell, the criterion of ability reflects the presence of managerial ability and technical ability for implementing the PPB.

(ii) The Legislative Support:

Among the requirements for the implementation of PPB is to grant financial and administrative powers to program and project managers. At the same time, they are questioned about the results of executing the previously specified objectives. So the relationship is based on mutual contract between the executive managers and the higher administration. Accordingly, specifying powers should be based on laws according to the results and not according to the expenditure items as in the case of the line-item budget. Certain rules and procedures are followed that help implement performance information. However, Perrin [2002] observes: “Many remnants of the traditional budgeting approach have remained despite the best efforts to get decision-makers to use PPB-generated information and data.”

(iii) The Acceptance Level:

The political will is critical to the implementation of reform. Even a less sophisticated system can achieve a great deal in the presence of political will, whereas a more sophisticated system will achieve very little, if the political will to use it is not present. Without at least some degree of public involvement, performance budgeting risks becoming an internal bureaucratic exercise detached from what citizenry views are important. Citizens’ involvement also
ensures credibility and enhances the meaningfulness of the data that are collected, assessed, and reported.

Finally, the importance of institutional culture and behavior should not be underestimated. These public finance management reforms seek to go beyond mechanical aspects to develop a policy and performance oriented institutional culture and behavior. This necessitates that the reforms be complemented by broader public sector reforms, including civil service reform.

The public finance reforms and program budgeting are mutually reinforcing in that they should support and drive the other forward. The proposed reforms, of which program budgeting is an integral part, will bring sweeping changes to the formal and informal institutional culture of the public sector requiring preparation, planning, dedication and determination.

CONCLUSION

Reforms have become a worldwide phenomenon and reforms related to governmental activities are no less important. This observation becomes highly relevant in view of rampant corrective management of governmental activities at all levels devoid of performance evaluation considering the social and economic implications of these activities.

The introduction of the PPB in all activities of the government with the strong foundation a new government accounting system for measuring the operations and quantifying the financial position will go a long way in heralding a new era of managing by results. It is important that government budgeting and accounting should necessarily be founded on accrual accounting. However, the governments of the world need to have the courage to adopt the new accounting system and MTOE and AFMIS along with classification of programs in all government activities should form the foundation for PPB and also the capability to implement the system with rigor and vigor.