

Preparation of the State Budget: The Modern Methods Adopted

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Abstract: The numerous limitations observed in the practical application of traditional budgeting, combined with the increasing significance of public budgeting due to the evolving role of the State and its expanding activities, have led to the development of various modern approaches to public budgeting. This article examines these approaches, beginning with program and performance-based budgeting, programming and planning budgeting, zero-based budgeting, and concluding with the latest stage of development: the emergence of contractual budgeting. The study finds that these diverse approaches and modern international experiences offer significant advantages for planning, controlling, and rationalizing public spending. This makes them worthy of study and adoption in modernizing budgeting systems and integrating advanced methods to achieve financial policy objectives with greater efficiency and effectiveness.

Keywords: program and performance-based budgeting; programming and planning budgeting; zero-based budgeting; contractual budgeting.

Jel Classification Codes : 2 C; 156 P;1 C, 36 P

Introduction

Public budgeting serves as the financial blueprint that embodies the diverse policies of the government. It is a comprehensive framework that encompasses the multitude of decisions involved in selecting the policies and objectives the government aims to pursue, as well as the choice of methods and programs designed to achieve these goals. As such, the public budget holds a central role in economic life, functioning as one of the key instruments of development. It acts as a manifestation of economic policies and plays a crucial role in redistributing income and allocating the national product to sectors or activities the State seeks to promote or develop. Consequently, the process of crafting the public budget is not merely an administrative or technical task; it lies at the heart of political dynamics within society and is deeply intertwined with its economic and social concerns.

Because of the deficiency faced in the existing budgeting system as well as other factors prevent to meet the economic goals of the government. This led to the emergence of the modern approaches to budgeting system. Thus, the questions to be raised are:

- What are the different modern approaches to budgeting?
- What are their advantages and disadvantages?
- What are their requirements?

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I- Program and Performance-Based Budgeting:

I-1- Origin and definition:

Since the early 1990s, the majority of governments in OECD countries have engaged in the systematic development of performance information to enhance their public financial management. However, performance budgeting represents a more comprehensive approach that extends beyond the mere development of performance metrics. It emphasizes the integration of these metrics into the entire budgetary process and the allocation of resources based on performance outcomes. Despite the longstanding historical concept of aligning performance with resource allocation dating back to the early 20th century, there remains considerable variability in how performance budgeting is defined and implemented across different jurisdictions. Terms such as budgeting for results, performance-based budgeting, and performance funding are often used interchangeably under the umbrella of performance budgeting, each emphasizing slightly different aspects of linking financial resources to programmatic outcomes. Furthermore, there exists significant divergence regarding the types of performance information deemed relevant, the optimal stage within the budget cycle for its introduction, and the methodologies employed to effectively tie performance metrics to resource allocation decisions. This lack of consensus underscores the ongoing evolution and complexity of integrating performance considerations into public budgeting practices worldwide. PPBB is a modern budgeting approach that organizes budgets around programs defined by their vision, mission, goals, objectives, and performance indicators. It efficiently manages budgets by prioritizing resource allocation based on program performance¹.

Program and performance-based budgeting is a comprehensive and multifaceted budgeting system primarily employed by public organizations. This approach is almost exclusively used by various branches of government, as well as the wide array of programs that governments establish and manage. It serves as a crucial tool in the public sector, enabling these entities to allocate resources efficiently and justify budgetary decisions through a structured framework that emphasizes performance outcomes and program objectives. By focusing on measurable goals and the effectiveness of governmental programs, this budgeting system helps ensure that public funds are utilized in a manner that maximizes public value and accountability. It's a budgeting approach that links allocated funds directly to measurable outcomes. Since the efficiency of public spending became a critical issue, especially post-World War II, program and performance-based budgeting has evolved to better align with governmental goals. However, analysis of its implementation across countries reveals ongoing uncertainties. There is no universally agreed definition of performance budgeting, including what information should be included or when it should be integrated into budget processes. As a result, there is no standardized model for program and performance-based budgeting.²

It seeks to enhance public expenditure efficiency and effectiveness by tying funding for public sector organizations directly to their performance outcomes, utilizing performance information systematically. Various models of performance-based budgeting employ different mechanisms to achieve this linkage, with some featuring advanced components that necessitate robust public support. Different countries adopt similar models of performance budgeting, but their implementation approaches vary based on national capacities, cultural considerations, and priorities. There are three widely recognized types: presentational, performance-informed, and direct performance budgeting. In the implementation process, key strategic decisions typically revolve around whether to adopt a top-down or bottom-up approach, decide on comprehensive or partial implementation coverage, and choose between incremental or "Big bang" implementation time frames. Program and performance-based budgeting stands as a primary strategy in public finance management.

I-2- Advantages:

Program and performance-based budgeting (PPB) offers several advantages:³

- Enhanced Accountability: By linking funding to performance outcomes, PPB promotes transparency and accountability in public expenditure.
- Improved Resource Allocation: It helps prioritize resources towards programs that demonstrate effectiveness and efficiency, optimizing the use of public funds.
- PPB shifts the focus from inputs to outcomes, ensuring that government spending achieves measurable results and societal impacts.
- Utilizing performance data enables informed decision-making, guiding policymakers in allocating resources where they can yield the greatest public benefit.
- By aligning budget decisions with program performance, PPB encourages efficiency improvements and continuous performance enhancement in public sector operations.

I-3- Disadvantages:

Despite all its advantages, the performance-based budget has a set of disadvantages:⁴

- Implementing PPB requires significant resources, including time, expertise, and technological infrastructure, which can be challenging for governments with limited capacities.
- PPB relies heavily on reliable and timely performance data. However, obtaining accurate data across all programs and sectors can be difficult, leading to potential inaccuracies in performance assessments.
- Performance indicators and metrics used in PPB may sometimes be subjective or difficult to quantify objectively, leading to inconsistencies in evaluating program effectiveness.
- There is a risk that organizations may focus more on achieving short-term performance targets rather than long-term strategic goals, potentially distorting program priorities.
- PPB often requires a cultural shift in how budgeting decisions are made, which can face resistance from stakeholders accustomed to traditional budgeting methods.

I-4- Basics:

Performance-based budgeting relies on three essential principles designed to ensure agencies are accountable for their accomplishments. Initially, agencies must create strategic plans outlining their intended achievements, including objectives aligned with outcomes valued by the public. Secondly, agencies must establish precise and systematic performance metrics based on these strategic plans to gauge how effectively they are meeting their objectives. Lastly, there needs to be a direct connection between these objectives and performance metrics throughout the budgetary process. This connection guarantees that funding allocations are directly linked to the results and performance outcomes achieved by agencies. These principles collectively underpin performance-based budgeting, aiming to enhance transparency, efficiency, and accountability in public sector operations.

II- Programming and Planning Budgeting:

II-1- History:

The programming and planning budgeting system originated in the United States as an effort to exert control over the costs of the armed forces, aiming to achieve defined objectives and address the question of adequate resource allocation. Before the introduction of PPBS, each branch of the U.S. military independently developed budget proposals, resulting in escalating expenditures over time. To impose greater oversight in this complex system, Robert McNamara, the inventor of PPBS, mandated that services create multi-year programs, which were consolidated into five-year

plans. As these programs were implemented, it became evident that overlaps between them were significantly reduced. In 1962, Secretary of Defense Robert S. McNamara introduced Planning, Programming, and Budgeting as a management system. PPBS, at its core, aids the Secretary of Defense in deciding how to distribute resources among competing programs and alternatives to achieve specific national defense objectives. In August 1965, President Johnson mandated all government departments, bureaus, and agencies to adopt programming and planning budgeting. Subsequently, the implementation of this system has progressed steadily over time⁵.

Supporters of this system argue that it will enhance governmental decision-making by providing more effective information and analysis across all levels.

The primary objective of programming and planning budgeting (PPBS) is to achieve the optimal allocation of resources to fulfill national defense goals. Put simply, PPBS aims to equip operational commanders with the most effective combination of forces, equipment, and support possible within budgetary limits.

Another key objective of PPBS is to optimize the force structure, equipment, and support within resource constraints. PPBS can also be viewed as a structured system with defined operational rules, comprising four continuous phases: planning, programming, budgeting, and execution.

Planning, programming, budgeting, and evaluation constitute a structured process with distinct phases. Planning within the programming and planning budgeting framework focuses on strategic environmental assessments, defining national security interests and objectives, and devising strategies to achieve them. Programming serves as the foundational phase, establishing the force structure based on identified needs and available resources. Plans are translated into a structured framework that aligns capabilities with desired outcomes. The programming phase results in a set of approved major programs encompassing all defense system activities over a specified timeframe. Execution, the final phase, ensures the continuous implementation of plans, programs, and budgets, with provisions for necessary adjustments during implementation.

The Programming and Budgeting System is a decision-making process for allocating defense resources. It operates year-round, with its three functions—planning, programming, and budgeting—functioning on a near-continuous basis, though not concurrently within the same fiscal year. The process can be outlined concisely: a strategy is developed in response to potential threats to national security objectives. The needs of the strategy are assessed, resulting in the creation of programs aimed at effectively implementing and carrying out the strategy.

Programming planning-based budgeting integrates management through analytical decision-making processes. It aims to enhance management's analytical foundation for program decisions and their operational implementation by merging planning, programming, and budgeting functions. This approach primarily addresses significant decision-making phases before operational activities commence. Organizations generally carry out their functions through five key phases: planning, programming, budgeting, operations, and evaluation. Programming and planning budgeting concentrate on the first three phases, with each phase playing a unique but interrelated role in overseeing and managing organizational activities.

II-2- Benefit:

Here are the benefits of Programming Planning Based Budgeting (PPBB):⁶

- PPBB provides a structured framework for making informed decisions based on thorough analysis and planning.
- It helps optimize the allocation of resources by aligning them with strategic goals and program priorities.
- By linking budget allocations to program performance, PPBB enhances transparency and accountability in resource management.

- To ensure that organizational strategies and objectives are closely integrated into budgetary decisions, fostering alignment with long-term goals.
- To allow for better risk assessment and management by identifying potential challenges early in the planning and programming phases.
- The PPBS facilitates continuous performance monitoring and evaluation, enabling timely adjustments to improve program effectiveness.
- By streamlining planning, programming, and budgeting functions, PPBB enhances operational efficiency and reduces redundancies.
- It promotes stakeholder involvement in the budgeting process, fostering collaboration and support for organizational goals.

III- The Zero-Based Budgeting

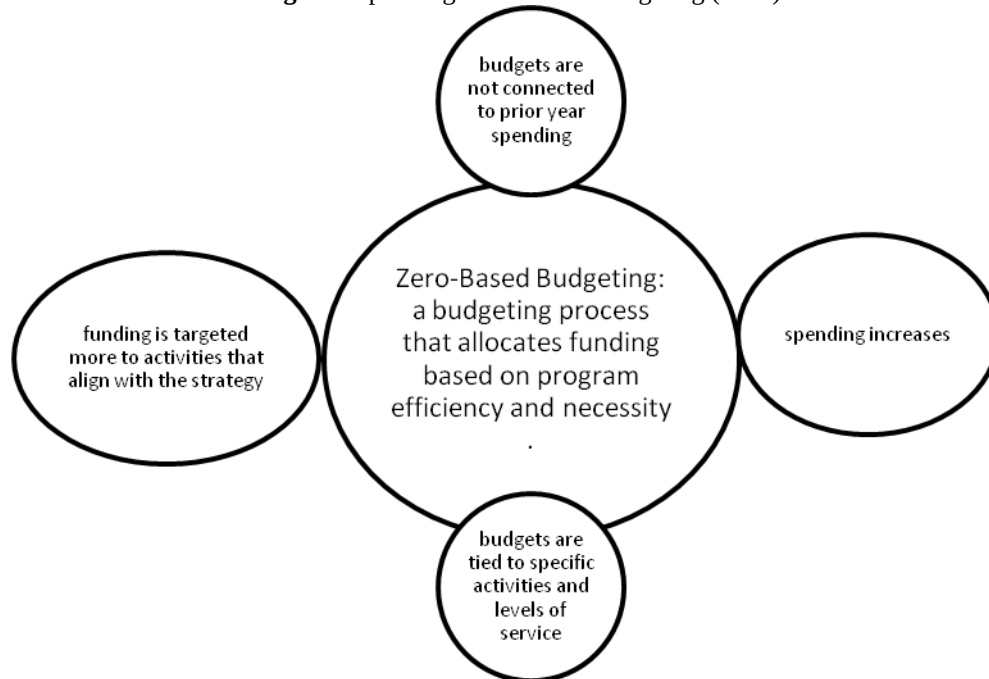
III - 1-Meaning and origin:

Zero-base budgeting originated at Texas Instruments in 1969, spearheaded by Peter Pyhrr and his team of analysts. It was developed as a response to fiscal challenges within the company. By employing a ZBB-like approach, the analysis revealed mismatches in resource allocation and strategic goals, along with communication gaps between business units. The effectiveness of this process prompted the creation of guidelines for a broader zero-base budgeting system, which was rolled out company-wide during the 1971 budget cycle.⁷

Zero-based budgeting has a notable and sometimes debated history in the public sector. It rose to prominence in government during the 1970s when U.S. President Jimmy Carter committed to balancing the federal budget within his first term and revamping the federal budgeting system using zero-based budgeting—a approach he had successfully implemented during his tenure as governor of Georgia. In its ideal form, zero-based budgeting, as envisioned by Carter and budgeting theorists, mandates that all expenditure proposals compete for funding from a baseline of zero. The concept requires justification and approval of the entire organizational budget, rather than just incremental changes from the previous year.⁸

Zero-based budgeting rose to prominence in the public sector during the financial crisis of the 1970s, propelled by U.S. President Jimmy Carter's commitment to balancing the federal budget. Carter sought to overhaul the federal budgeting system, drawing on his effective application of zero-based budgeting during his time as governor of Georgia. Initially praised, zero-based budgeting became criticized for its complexity, time-consuming nature, and limited effectiveness. Ultimately, decisions about program continuance were left to Congress and the executive branch. The president's budget office also employed a modified form of zero-based budgeting, requiring agencies to prioritize programs within set funding constraints.

Fig. 1: Explaining Zero-Based Budgeting (ZBB)



Source: Mark Hopkins, Zero Based Budgeting: Zero or Hero? 2005, p 2.

Zero-based budgeting is a budgeting approach that assesses projected activities rather than relying on past expenditures. Each activity undergoes separate evaluation through decision packages developed annually. Originally, it specifically referred to a budgeting method that resets each budget cycle to zero, without assuming that activities funded in the previous budget would automatically continue. This approach necessitates justification for every activity included in the new budget, aiming to facilitate thorough analysis, prioritize programs and activities, and emphasize cost-effectiveness and efficiency.

The organization or government unit is first divided into "decision units," overseen by experienced frontline managers. These managers consolidate individual expenditures into activity costs, which are then organized into individual decision packages. Each package is evaluated to explore alternative methods of delivery, aiming to enhance service efficiency while reducing resource use. Decision packages may include different funding levels for each activity, with each level potentially considered a separate decision package, depending on how zero-based budgeting is applied. Managers prioritize and rank these packages, compiling them into a final list. In larger organizations, additional review stages may be added, but the core process generally stays the same.⁹

Zero-based budgeting presents a more effective strategy for overcoming these challenges. Unlike incremental budgeting, which builds upon the previous year's budget levels without questioning underlying assumptions, zero-based budgeting requires a fresh evaluation of every budget item from scratch. This approach ensures that each expenditure is justified based on current needs and priorities, rather than simply continuing past funding levels. By promoting a thorough review and justification process for all expenditures, zero-based budgeting encourages greater fiscal discipline and transparency in resource allocation decisions. Zero-based budgeting reallocates funds based on program efficiency and necessity rather than historical patterns. It requires justifying every expense anew each budget cycle, applicable to all cost types. Successful implementation yields significant savings and organizational flexibility, while failure can incur substantial costs.¹⁰

The implementation steps are:¹¹

Managers first establish different decision packages associated with performing each work task, such as forecasting the costs and benefits of conducting a project or outsourcing it or centralizing versus decentralizing operations.

1. The decision packages should be ranked in order of importance. Tradeoffs between respective packages should be considered. These allow managers to rank priorities and combine decision packages for old and new projects into one, and allow top management to evaluate and compare the needs of individual units.
2. In addition, managers also define different spending levels for each activity alternative, starting with a minimum level (usually 75% of current spending). Separate decision packages are created to evaluate the costs and benefits of higher expenditure levels. This allows managers to assess lower spending options, enabling decision-makers to eliminate the activity or allocate resources to the chosen level, considering expenditure adjustments and trade-offs between departments.

III - 2-Advantages:

The zero-based budgeting (ZBB) has a set of advantages which are:¹²

- promotes efficiency by requiring justification for all expenditures, eliminating unnecessary costs.
- It ensures resources are allocated based on current needs and strategic goals rather than past allocations.
- ZBB enhances transparency by making budgeting decisions clear and accountable.
- it often identifies areas for cost reduction and savings.
- It facilitates prioritization of programs and activities based on their impact and alignment with organizational goals.
- It allows for flexibility in reallocating resources based on changing priorities and circumstances.
- Managers are held accountable for justifying their budget requests and ensuring efficient resource utilization.
- It fosters innovation as departments seek more efficient ways to achieve objectives within budget constraints.
- It promotes communication and collaboration across departments as they work together to justify their budgets.
- It encourages strategic planning by linking budget decisions directly to organizational objectives.
- reduces the tendency to pad budgets unnecessarily, promoting tighter financial discipline.
- By linking funding directly to performance metrics, ZBB encourages a focus on achieving measurable results.

III - 3-Drawbacks:

Despite all its advantages, the zero-based budgeting (ZBB) has a set of disadvantages:¹³

- Continuous monitoring and adjustment of ZBB budgets can impose a significant administrative burden on managers and staff.
- ZBB's rigorous review process may result in budget cuts that impact morale and hinder innovation and growth initiatives.
- There may be challenges in consistently applying ZBB across different departments or units within an organization, leading to inconsistencies in resource allocation.

- If not implemented carefully, ZBB may lead to underfunding of critical programs or activities essential for long-term success.
- Maybe disruptive to the organization's operations.
- There may be a tendency to prioritize immediate cost savings over long-term strategic investments and initiatives.
- Initial setup costs and training for ZBB can be significant, potentially outweighing short-term savings
- It requires skilled analysts and managers capable of conducting detailed cost-benefit analyses and justifying budget requests effectively.
- It can be complex and challenging to implement, especially for large organizations with numerous programs and activities.
- Implementing ZBB requires extensive time and effort to justify and evaluate each budget item from scratch, which can be resource-intensive.

III - 4-Criticism against the zero-based budgeting:

Shelby points out that previous research into the adoption of zero-based budgeting by the Federal and Georgia State governments in the 1970s has identified certain challenges that management should anticipate and prepare for. These include a substantial learning curve for all employees, particularly those not accustomed to budgeting, requiring training in both process and cost analysis. It is essential to secure wholehearted support from all departments, as concerns about possible funding reductions need to be addressed through education about the advantages of efficiency analysis.¹⁴

IV- The Contractual Budgeting:

IV-1- Concept:

Contractual budgeting, introduced by the New Zealand Finance Ministry in 1996, represents a recent approach to budgeting. It aims to reshape public budgeting by establishing purchase contracts between provider agencies and the central government. Inspired by a straightforward model where the purchaser acquires clearly defined outputs from a provider at a predetermined price, contractual budgeting merges output-based budgeting frameworks with the modern trend of introducing market dynamics into the public sector. The goal of this method is to regulate resource allocation so that revenue budgeted in hospitals corresponds to expenses budgeted in municipalities. Key projects under contractual budgeting include the Build-Operate-Transfer model and public-private partnerships.

IV-2- The Build – Operate – Transfer Model:

The Build-Operate-Transfer (BOT) model is a widely adopted financing framework for large-scale infrastructure projects, enabling a private entity to finance, design, build, and operate a facility or infrastructure for a predetermined period. Gaining prominence in the 1980s, particularly in Asia and Europe, this model shifts the financial risks of construction and operation to private companies, which are compensated through potential profits earned during the concession period. At the end of the contract term, ownership of the infrastructure typically transitions to the government or another public entity. This approach appeals to governments facing budget limitations or seeking innovative methods to develop infrastructure without upfront financial burdens. BOT projects often entail intricate negotiations and detailed contracts to ensure mutual benefits for both public and private stakeholders, while ensuring the infrastructure meets quality, affordability, and accessibility standards in the public interest.¹⁵

IV-3- Characteristics of the Build-Operate-Transfer Model:

The Build-Operate-Transfer (BOT) model is defined by several distinctive features that make it a widely used financing mechanism for infrastructure projects globally. In this model, a private entity takes on the financial responsibility for constructing, operating, and maintaining a public infrastructure project over a specified concession period. This allows the private sector to utilize its skills and resources to develop projects that might face delays or funding challenges under traditional government procurement methods. During the concession period, the private entity operates the infrastructure and generates revenues, often through user fees or service charges, to recover its investment and achieve profitability. Ownership of the infrastructure typically transfers to the government or a public entity at the end of the concession period, ensuring eventual public ownership and oversight. BOT projects require meticulous risk assessment and contractual agreements to allocate responsibilities, manage financial risks, and uphold public interests in terms of project quality, affordability, and accessibility. These characteristics underscore the BOT model's adaptability and effectiveness in leveraging private sector investment and expertise for infrastructure development while addressing fiscal constraints.¹⁶

IV-4- Public-Private Partnership (P3):

Public-Private Partnerships (P3s) are cooperative agreements between government agencies and private sector firms designed to fund, build, and manage public infrastructure or provide public services. These partnerships combine the government's oversight and access to public funds with the private sector's expertise in project delivery, innovation, and efficiency. In a standard P3, the private sector partner assumes the roles of designing, constructing, financing, operating, and maintaining the infrastructure or service for a specified duration, typically governed by a concession agreement. In exchange, the private partner receives compensation from the government, usually through payments based on availability or user fees, to cover costs and generate a profit. P3s are utilized across various sectors, including transportation, utilities, social infrastructure, and emerging areas like digital infrastructure and renewable energy projects. They are structured to align interests, manage risks effectively, and ensure the cost-effective delivery and ongoing operation of public assets or services, ultimately aiming to maximize value for taxpayers.¹⁷

IV-5- The advantages of Public-Private Partnership (P3):

Public-Private Partnerships (P3s) offer governments access to private sector expertise and efficiency, leading to cost savings and better project outcomes. They enable alternative financing, spreading costs over time and reducing budget constraints. P3s foster competition and innovation among private partners, ensuring efficient project management and lower costs. They also enhance accountability through performance-based contracts, ensuring projects meet agreed standards. Overall, P3s provide a flexible approach to infrastructure development, aligning public and private interests to maximize value for taxpayers.¹⁸

Conclusion:

Finally, it can be said that at the beginning of the implementation of the public budget, the internal control methods at the level of the administrative units have not reached a degree to be relied upon, They were deficient and late in this field, This may justify resorting to the use of the public budget as a tool to overcome many of the shortcomings resulting from weak internal controls, and then protect public money from manipulation and embezzlement.

Today, the concept of the public budget itself has evolved, necessitating a reevaluation of its philosophy, objectives, and methods of preparation and implementation. The emergence of modern approaches, such as program and performance-based budgeting, programming and planning budgeting, zero-based budgeting, and contractual budgeting, has significantly influenced the budgeting processes of some countries that have aligned these methods with their economic and social goals. This highlights the

importance of studying international experiences in applying these modern budgeting approaches. By leveraging these insights, public entities can modernize budget systems and achieve financial policy objectives more efficiently and effectively. Here are some findings that can be drawn from this study:

- The modern approaches give top management better insights into the detailed workings of departments.
- They improved effectiveness in the use of public money because we aim at achieving expected results, spending public money, at the same time, we aim at methods, techniques, concrete instruments that we will be used for achieving the objectives we aim at.
- They provide evaluation and accountability.
- They help to rationalize the public budgeting.

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