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Normative–Adaptive Government Budgeting Theory: Reframing Public Budgets from Forecast-Based Planning and Ex Post Control to Real-Time Public Value Governance

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Abstract
Purpose: This study aims to develop a new theory in governmental accounting that addresses persistent limitations in the planning and control functions of government budgets. Existing budgeting frameworks primarily focus on forecasting what is likely to occur and rely on ex post accountability, which constrains the budget's capacity to support timely corrective intervention and public value realization.
Design/methodology/approach: The study adopts a theory development approach grounded in a critical synthesis of contemporary governmental accounting, budgeting, and accountability literature. By systematically reviewing post-2020 studies on line-item, program, performance, and adaptive budgeting models, the paper develops a conceptual framework that integrates normativity, time, and corrective authority within budgeting theory.
Findings: The analysis reveals that prevailing budgeting models emphasize classification, measurement, and reporting, while under-theorizing the temporal and normative dimensions required for real-time governance. The study proposes the Normative–Adaptive Government Budgeting Theory (NAGBT), which reconceptualizes budgets as dynamic accountability instruments that prescribe required public value outcomes and enable corrective intervention during execution rather than after outcomes materialize.
Originality/value: This study is original in developing an integrated theoretical framework that explicitly links public value orientation, temporal sensitivity, and adaptive authority within government budgeting. It moves beyond incremental reform perspectives by redefining the budget's core function in governmental accounting.
Theoretical, practical, and social implications: The theory advances governmental accounting and accountability literature by repositioning budgets as active governance mechanisms. Practically, it provides a conceptual basis for designing budgets capable of timely correction and adaptive control. Socially, it supports more effective use of public resources and strengthens the capacity of governments to protect and enhance public value.

Keywords: Government Budgeting, Normative-Adaptive Theory, Financial Governance, Real-Time Accountability, Public Value-Oriented Planning, In-Action Control, Governmental Accounting

1. Introduction

1.1 Background and Context

Government budgeting constitutes a core pillar of governmental accounting and public sector governance, as it formalizes how political priorities are translated into financial authorizations and how accountability for public resources is exercised. Recent governmental accounting literature emphasizes that budgets are not merely technical financial documents, but institutional devices embedded in broader systems of governance, accountability, and public value creation (Bracci *et al*., 2021; Grossi & Thomasson, 2022). Through the budget, governments define priorities, allocate scarce resources, and establish expectations against which performance and conduct are assessed.

Despite continuous reform efforts, contemporary studies show that the fundamental logic of government budgeting has remained largely stable. Even advanced budgeting frameworks continue to rely heavily on ex ante financial forecasting and ex post compliance-oriented control (Anessi-Pessina *et al*., 2020; Brusca *et al*., 2021) [2, 11]. While these approaches support fiscal discipline and legal accountability, they often struggle to respond effectively to uncertainty, volatility, and complex policy challenges. Recent research highlights that global crises, fiscal shocks, and rapidly changing societal needs have exposed the limitations of static and rigid budgeting systems (OECD, 2021; IMF, 2023) [49, 35].

As a result, budgets frequently function as authorization instruments rather than as active governance mechanisms. Although governments increasingly invest in performance measurement and digital financial systems, these developments have not fundamentally altered the role of the budget within governmental accounting (Brusca *et al*., 2023) [10]. This context has prompted renewed academic interest in reconsidering the conceptual foundations of budgeting and its capacity to support real-time decision-making and accountability.

1.2 The Research Problem

The central research problem addressed in this study arises from a structural misalignment between the planning and control functions of government budgets. On the planning side, budgeting practices remain predominantly oriented toward forecasting what is likely to occur, rather than normatively defining what should be achieved in terms of public value and societal outcomes (Grossi *et al*., 2020; Moore & Khagram, 2021) [27, 47]. Budget plans therefore tend to extrapolate past trends and macroeconomic assumptions, limiting their capacity to guide transformative or corrective action.

On the control side, accountability mechanisms continue to rely largely on ex post processes such as financial reporting, auditing, and legislative review. Contemporary accountability research demonstrates that such mechanisms often identify problems only after resources have been committed and outcomes have materialized, reducing the scope for effective correction (Schillemans & Busuioc, 2022; Power, 2023) [61, 57]. In these circumstances, accountability becomes predominantly justificatory, focusing on explaining deviations rather than preventing or mitigating them.

Recent studies further suggest that this problem cannot be adequately explained as a failure of implementation or managerial capacity alone. Although governments now possess extensive real-time financial and performance data, this information is rarely connected to formal authority for intervention during budget execution (Bracci *et al*., 2022) [8]. The persistence of this gap indicates a deeper theoretical limitation in how budgeting is conceptualized within governmental accounting.

1.3 Research Objectives and Research Questions

In response to this problem, the primary objective of this study is to develop a new theoretical perspective in governmental accounting that reconceptualizes government budgeting as a normative and adaptive instrument of accountability. Rather than treating the budget as a predictive financial plan followed by retrospective control, the study seeks to theorize budgeting as a mechanism capable of guiding action and enabling corrective intervention during execution.

Accordingly, the study addresses the following overarching research question:

How can government budgeting be theoretically redefined to move beyond forecast-based planning and ex post control toward real-time, corrective accountability oriented to public value?

This objective is pursued through a theory development approach that critically synthesizes contemporary budgeting, accounting, and accountability literature, with the aim of identifying conceptual gaps and proposing an integrated theoretical framework capable of addressing them.

1.4 Significance of the Study

The significance of this study stems from its potential to address enduring weaknesses in government budgeting that have persisted despite extensive reform efforts over the past two decades. Recent public sector accounting research increasingly recognizes that incremental technical improvements—such as enhanced performance indicators, transparency initiatives, or digital platforms—have failed to fundamentally change how budgets operate as instruments of governance (Lapsley *et al*., 2021; Grossi & Reichard, 2023) [42, 24]. By framing budgeting deficiencies as a theoretical rather than purely operational problem, this study challenges dominant assumptions within governmental accounting and public financial management.

This significance is further reinforced by contemporary governance conditions marked by fiscal stress, uncertainty, and heightened expectations for public value delivery. Post-2020 studies emphasize that traditional budgeting frameworks struggle to support resilience and adaptive decision-making in volatile environments, particularly during crises and rapid policy shifts (OECD, 2022; Kuhlmann & Bouckaert, 2023 [40]). In this context, rethinking the theoretical role of budgeting becomes essential for strengthening accountability and safeguarding public value.

1.5 Research Contributions

This study makes several contributions to the governmental accounting and accountability literature. First, it contributes theoretically by developing a novel normative–adaptive conception of government budgeting that explicitly integrates public value orientation, temporal sensitivity, and corrective authority within a single framework. This moves beyond prevailing models that prioritize forecasting accuracy, classification, and reporting, while leaving intervention during execution under-theorized (Schillemans, 2020; Busuioc & Lodge, 2021) [60, 16].

Second, the study advances accountability theory by repositioning time and intervention as central analytical dimensions of budgetary control. In doing so, it responds to recent calls for more dynamic and forward-looking conceptions of accountability that align responsibility with governability (Schillemans & Busuioc, 2022 [61]; Lodge & Wegrich, 2023). Third, the study provides a coherent conceptual foundation for future empirical research by articulating theoretically grounded propositions that can be tested across different governmental contexts and institutional settings.

Finally, the study contributes to broader debates on public governance by reframing the budget as an active steering mechanism rather than a passive authorization and reporting device. This perspective strengthens the link between governmental accounting, decision-making authority, and societal outcomes, thereby enhancing the relevance of budgeting theory for contemporary public sector challenges (Grossi *et al*., 2022; Bracci *et al*., 2023) [28, 6].

1.6 Structure of the Study
The remainder of this study is organized as follows. Chapter Two presents a critical review of contemporary government budgeting literature, identifying the conceptual limitations of dominant models and establishing the theoretical gap addressed by the study. Chapter Three develops the conceptual foundations for understanding budgeting as a normative and governance-oriented accounting practice. Chapter Four formally articulates the proposed normative–adaptive government budgeting theory. Chapter Five outlines the design of the empirical illustration, while Chapter Six reports the empirical findings. Chapter Seven integrates discussion, implications, and recommendations, and Chapter Eight concludes the study by summarizing its contributions and outlining directions for future research.

2. Literature Review
2.1 Line-Item Budgeting: Legal Accountability and the Limits of Governance
Recent governmental accounting research confirms that line-item budgeting remains deeply embedded in public financial systems despite repeated reform initiatives. Post-2020 studies show that its persistence reflects its strong compatibility with legal authorization, auditability, and parliamentary oversight rather than conceptual superiority in achieving public value (Anessi-Pessina *et al*., 2020; Brusca *et al*., 2021) [2, 11]. By structuring budgets around detailed expenditure items, this model reinforces rule-based accountability and facilitates ex post verification of legality and regularity.
However, contemporary critiques emphasize that line-item budgeting narrows the scope of accountability to procedural compliance, marginalizing broader governance concerns. Scholars argue that legality-focused control can coexist with inefficiency and outcome failure without triggering meaningful intervention during execution (Bracci *et al*., 2021; Grossi & Thomasson, 2022). From a temporal perspective, control is exercised after spending occurs, rendering corrective action reactive rather than preventive. As a result, line-item budgeting protects fiscal discipline but offers limited theoretical support for real-time governance and adaptive decision-making (Power, 2023) [57].

2.2 Program Budgeting: Translating Policy without Enforceable Normativity
Program budgeting was introduced to overcome the input orientation of line-item systems by linking financial resources to policy objectives and activities. Recent literature suggests that program structures have improved the communicative capacity of budgets, making policy intentions more visible to stakeholders and facilitating coordination across organizational units (Brusca *et al*., 2023; OECD, 2021) [10, 49]. In this sense, program budgeting functions as a translation mechanism between political priorities and financial allocations.
Nevertheless, post-2020 research increasingly questions the governance impact of program budgeting. While programs describe what governments intend to do, they rarely establish binding normative commitments regarding what must be achieved (Grossi & Reichard, 2023) [24]. Empirical evidence indicates that programs often become administrative containers, lacking authority to trigger resource reallocation or corrective intervention when performance deviates from expectations (Anessi-Pessina *et al*., 2020) [2]. Consequently, program budgeting modifies classification logic without fundamentally altering the temporal rigidity of budget execution.

2.3 Performance Budgeting: Measurement Expansion and the Intervention Gap
Performance budgeting represents the most influential contemporary reform in public budgeting, particularly after 2020, with governments investing heavily in performance indicators, outcome frameworks, and digital dashboards (OECD, 2022; Brusca *et al*., 2021 [11]). From an informational standpoint, these developments have enhanced transparency and expanded the availability of data on outputs and outcomes.
However, a growing body of critical literature highlights a persistent disconnection between performance information and budgetary decision-making. Studies demonstrate that performance indicators are frequently used for reporting and evaluation rather than as triggers for action during execution (Schillemans & Busuioc, 2022; Vinnari & Laine, 2023) [61, 64]. This reflects a deeper theoretical issue: performance budgeting conceptualizes accountability as an informational process, assuming that better measurement will naturally lead to better governance (Power, 2023) [57].
Recent accounting research challenges this assumption, showing that without explicit authority for intervention and temporal flexibility, performance systems reinforce ex post accountability and symbolic compliance (Bracci *et al*., 2022; Grossi *et al*., 2022) [8, 28]. As a result, performance budgeting expands measurement capacity without resolving the core problem of corrective governance.

2.4 Beyond Annuality: Rolling, Outcome-Based, and Adaptive Budgeting Approaches
In response to the limitations of traditional models, recent literature has explored alternatives to the annual budget cycle, including rolling forecasts, outcome-based budgeting, and adaptive budgeting frameworks. Post-2020 studies suggest that these approaches offer greater flexibility in adjusting plans to uncertainty, shocks, and emerging risks (OECD, 2023; IMF, 2023) [52, 35]. By updating assumptions and reallocating resources more frequently, such models seek to reduce the rigidity inherent in annual authorization.
Despite their promise, contemporary analyses caution that many adaptive budgeting initiatives remain fragmented. Rolling or outcome-based mechanisms are often layered onto existing systems without fundamentally altering underlying accountability structures (Grossi & Reichard, 2023) [24]. Without a coherent theoretical foundation that integrates normativity, time, and authority for intervention, adaptive techniques risk becoming technical add-ons rather than drivers of governance transformation (Brusca *et al*., 2023) [10].

2.5 Digital Transformation and Real-Time Budgeting: Information without Corrective Authority
The digital transformation of public financial management has significantly reshaped budgeting, accounting, and performance monitoring practices over the past decade. Recent studies highlight the rapid diffusion of integrated financial management information systems, real-time dashboards, and advanced analytics designed to provide timely insights into budget execution and service delivery (Mergel *et al*., 2021 [46]; OECD, 2022). From a technical

standpoint, these developments have enhanced transparency and reduced information asymmetries across levels of government.

Nevertheless, contemporary accounting research cautions that real-time information does not automatically translate into real-time governance. Empirical evidence suggests that digital budgeting systems often strengthen monitoring and reporting functions while leaving decision rights and intervention authority largely unchanged (Vial, 2021; Bracci *et al*., 2023) [63, 6]. As a result, governments may detect deviations earlier but remain institutionally constrained in responding to them during execution. Digitalization thus amplifies visibility without resolving the underlying governance problem.

Critical perspectives further argue that digital transformation may reinforce existing accountability asymmetries. Real-time indicators can intensify surveillance and performance pressure at operational levels while insulating strategic budgetary decisions from timely correction (Pencheva *et al*., 2020 [54]; Busuioc & Jevnaker, 2022). In this sense, digital budgeting enhances measurement capacity but leaves intact the theoretical separation between information and authority that characterizes prevailing budgeting models.

2.6 Accountability Reconsidered: From Justificatory to Corrective Logics

Recent accountability literature increasingly challenges the dominance of justificatory accountability, which emphasizes explanation and answerability after the fact. Post-2020 studies propose more dynamic conceptions, including anticipatory, predictive, and corrective accountability, which stress timely intervention to steer action toward desired outcomes (Schillemans, 2020; Busuioc & Lodge, 2021) [60, 16]. These perspectives are particularly relevant for government budgeting, where delayed intervention can result in irreversible value loss.

In budgeting contexts, however, accountability expectations have expanded faster than intervention capacity. Managers and agencies are increasingly held responsible for outcomes, resilience, and public value creation, yet remain bound by rigid authorization rules and limited reallocation authority (Grossi *et al*., 2022; Kuhlmann & Bouckaert, 2023) [28, 40]. This mismatch undermines both effectiveness and legitimacy, as actors are accountable for results they lack the means to influence during execution.

Accounting scholars argue that this condition reflects a deeper theoretical omission. Accountability is often conceptualized as a relational or procedural mechanism, while its temporal dimension—when accountability can meaningfully shape action—remains under-theorized (Lodge & Wegrich, 2023; Power, 2023 [57]). Without embedding corrective authority within budgeting systems, accountability risks becoming performative, generating reports and audits without improving governance outcomes (Bracci *et al*., 2022; Grossi & Reichard, 2023) [8, 24].

2.7 Explicit Theoretical Gap: Budgeting without Normativity, Time, and Corrective Authority

Synthesizing contemporary literature reveals a clear and persistent theoretical gap in governmental budgeting research. Existing models—whether line-item, program, performance, or adaptive—provide detailed guidance on budget preparation, classification, measurement, and reporting, yet offer limited conceptualization of budgeting as an instrument of real-time governance (Anessi-Pessina *et al*., 2020 [2]; Grossi & Thomasson, 2022). Normativity, understood as the explicit articulation of binding public value objectives, remains weakly integrated into budgeting theory.

Moreover, time continues to be treated as an administrative constraint rather than as a core analytical dimension. Despite widespread recognition of uncertainty, shocks, and volatility, annuality remains the dominant temporal logic in budgeting frameworks (OECD, 2023; IMF, 2023) [52, 35]. Finally, authority for corrective intervention during execution is seldom theorized as an intrinsic component of budgeting systems. Intervention is instead framed as exceptional, political, or crisis-driven, rather than as a routine governance function.

Taken together, these omissions indicate that contemporary budgeting theory lacks an integrated framework capable of combining normative orientation, temporal sensitivity, and corrective authority. This gap is not merely technical but theoretical, limiting the capacity of budgets to function as effective accountability and governance instruments in complex public sector environments (Bracci *et al*., 2021; Power, 2023 [57]). Addressing this gap requires a reconceptualization of budgeting itself—a task undertaken in the subsequent chapters through the development of a normative–adaptive government budgeting theory.

3. Conceptual Foundations of Normative–Adaptive Government Budgeting

3.1 Government Budgeting as a Normative Accounting Practice

Recent governmental accounting scholarship increasingly recognizes that government budgeting cannot be understood as a neutral or purely technical activity. Budgets constitute authoritative statements about priorities, acceptable trade-offs, and desired societal outcomes, even when they are framed in ostensibly objective financial terms (Bracci *et al*., 2021; Grossi & Thomasson, 2022). In this sense, budgeting operates as a normative accounting practice: it establishes expectations about what ought to be achieved with public resources rather than merely predicting future financial flows.

Despite this inherent normativity, dominant budgeting theories continue to privilege descriptive and instrumental perspectives. Line-item, program, and performance budgeting models typically assume that objectives are externally defined and focus analytical attention on allocation, measurement, and compliance (Anessi-Pessina *et al*., 2020) [2]. As a result, the budget's role in articulating binding public value commitments remains weakly theorized. Recent studies argue that this omission contributes to a disconnect between political aspirations and financial execution, as normative goals are rarely embedded within the budget's operational logic (Grossi *et al*., 2022) [28].

Reframing budgeting as a normative practice implies recognizing that budgetary decisions create obligations, not merely forecasts. From this perspective, deviations from budgetary objectives are not simply performance variances but normative failures that call for corrective action. This shift is essential for understanding why traditional reforms have struggled to transform budgeting into an effective governance instrument.

3.2 Public Value as a Budgetary Reference Framework

The concept of public value has gained renewed prominence in post-2020 debates on public sector governance and accountability. Contemporary literature emphasizes that public value extends beyond efficiency and legality to encompass societal outcomes, legitimacy, and long-term sustainability (Bracci *et al*., 2021; Moore & Khagram, 2021 [47]). However, while public value is frequently invoked in strategic documents and policy narratives, its integration into budgeting systems remains limited.

Recent accounting research shows that budgets often operate independently of public value frameworks. Performance indicators and outcome measures may reference value-related objectives, yet budgetary allocations and execution rules continue to prioritize cost control and procedural compliance (Lapsley *et al*., 2021) [42]. This separation weakens the budget's capacity to function as a mechanism for value creation, as financial decisions are decoupled from normative assessments of societal benefit.

Positioning public value as a budgetary reference framework requires more than adding outcome indicators. It necessitates embedding value judgments directly into budgetary authorizations and control mechanisms. Recent studies argue that without such embedding, public value remains aspirational rather than operational, limiting its influence on real-time decision-making (Grossi & Reichard, 2023) [24]. A normative–adaptive perspective therefore treats public value as a core evaluative criterion that guides both allocation and correction during execution.

3.3 Time and Temporality in Budgetary Control

Time represents one of the most under-theorized dimensions of government budgeting. Despite widespread recognition of uncertainty, volatility, and rapid policy change, budgeting theory remains dominated by the logic of annuality and fixed authorization cycles (OECD, 2023) [52]. Time is typically treated as an administrative constraint rather than as a conceptual variable shaping accountability and control.

Recent accounting scholarship highlights that the effectiveness of control mechanisms depends not only on what is monitored, but also on when intervention occurs (Power, 2023) [57]. Ex post control, while valuable for learning and accountability, often arrives too late to prevent value erosion or policy failure. Studies published after 2020 emphasize that delayed intervention transforms accountability into a justificatory exercise, focusing on explanations rather than correction (Schillemans, 2020) [60].

Integrating temporality into budgeting theory requires reconceptualizing control as a continuous process rather than a periodic event. From a normative–adaptive perspective, budgets should enable intervention during execution, allowing decision-makers to respond to emerging deviations and risks before they become irreversible. This temporal sensitivity constitutes a foundational requirement for effective public value governance.

3.4 Authority and the Problem of Corrective Intervention

A recurring theme in contemporary public sector research concerns the misalignment between accountability and authority. Managers and agencies are increasingly held responsible for outcomes, resilience, and public value creation, yet often lack the budgetary authority required to intervene during execution (Busuioc & Lodge, 2021; Kuhlmann & Bouckaert, 2023) [16, 40]. This asymmetry undermines both effectiveness and legitimacy.

Traditional budgeting frameworks reinforce this problem by separating authorization from execution. While budgets define spending limits ex ante, they rarely specify who has the authority to correct course when circumstances change. Recent studies argue that this silence reflects a deeper theoretical omission: intervention is treated as exceptional or political rather than as a routine function of budgeting systems (Grossi *et al*., 2022) [28].

From a conceptual standpoint, corrective intervention must be understood as an intrinsic component of budgetary power. Without explicit authority to reallocate resources, adjust priorities, or suspend ineffective activities, accountability expectations remain largely symbolic. Establishing such authority is therefore essential for transforming budgets into adaptive governance instruments.

3.5 From Justificatory to Corrective Accountability

Recent developments in accountability theory challenge the traditional dominance of justificatory accountability, which focuses on explaining actions and outcomes after they have occurred. Post-2020 scholarship increasingly argues that such retrospective accountability is insufficient in complex and uncertain governance environments, where delayed responses can result in irreversible public value losses (Schillemans & Busuioc, 2022 [61]; Lodge & Wegrich, 2023). Instead, emerging perspectives emphasize corrective and anticipatory accountability, which prioritize timely intervention to steer action while it is still possible to influence outcomes.

In the context of government budgeting, this shift has profound implications. Conventional budgetary accountability is largely activated through ex post reporting, auditing, and legislative scrutiny, reinforcing a logic of answerability rather than correction. Recent studies demonstrate that this model often produces extensive documentation and evaluation without materially improving budget execution or service outcomes (Bracci *et al*., 2022; Power & Laughlin, 2022) [8, 58]. Accountability, in this sense, becomes performative—satisfying formal requirements while leaving underlying problems unaddressed.

Corrective accountability requires a different conceptualization of the budget's role. Rather than serving primarily as a benchmark for post hoc evaluation, the budget must function as a living instrument that enables decision-makers to intervene when deviations from normative objectives emerge. This entails linking accountability mechanisms directly to budgetary authority and temporal decision rights. Without such linkage, calls for anticipatory or predictive accountability remain disconnected from the financial structures that govern public action.

3.6 Conceptual Integration: Normativity, Time, and Corrective Authority

The preceding sections highlight three interrelated dimensions that remain weakly integrated in prevailing budgeting theories: normativity, temporality, and corrective authority. Individually, each dimension has been discussed in contemporary literature, yet typically in isolation and without systematic integration into budgeting theory (Grossi & Reichard, 2023; Lapsley & Miller, 2024) [24, 41]. This fragmentation helps explain why successive reforms have generated incremental improvements without fundamentally transforming the governance capacity of budgets.

A normative–adaptive perspective requires treating these dimensions as mutually reinforcing components of a single conceptual framework. Normativity provides the evaluative criteria that define what ought to be achieved in terms of public value. Temporality determines when control and accountability can meaningfully influence action. Corrective authority specifies who has the legitimate power to intervene and how such intervention is operationalized within budgetary processes. Recent accounting research suggests that without simultaneous attention to all three dimensions, budgeting systems remain structurally incapable of adaptive governance (Vinnari & Laine, 2023; Grossi *et al*., 2022) [64, 28].

Integrating these dimensions shifts the analytical focus from budget design and classification to budget use and intervention. The budget becomes a mechanism for continuous steering rather than a static plan followed by retrospective evaluation. This conceptual integration lays the groundwork for theorizing budgeting as an active governance instrument capable of protecting public value under conditions of uncertainty and change.

3.7 Bridging Conceptual Foundations to Theory Development

The conceptual foundations developed in this chapter clarify why existing budgeting models—despite their diversity—share a common limitation. They are primarily designed to authorize spending, classify resources, and report results, while offering limited guidance on how budgets should function as instruments of real-time governance and corrective accountability (Anessi-Pessina *et al*., 2020 [2]; Grossi & Thomasson, 2022). As a result, budgeting theory remains ill-equipped to address contemporary governance challenges that demand adaptability, responsiveness, and value-oriented intervention.

This chapter therefore serves as a bridge between the literature review and the development of a new theoretical framework. By establishing normativity, temporality, and corrective authority as foundational requirements, it defines the conceptual conditions that any adequate theory of government budgeting must satisfy. The next chapter builds directly on these foundations by articulating the **Normative–Adaptive Government Budgeting Theory (NAGBT)**, which integrates these dimensions into a coherent model of budgeting as real-time accountability and public value governance.

4. Normative–Adaptive Government Budgeting Theory (NAGBT)

4.1 Purpose and Positioning of the Theory

This chapter develops the **Normative–Adaptive Government Budgeting Theory (NAGBT)** as a core theoretical contribution to governmental accounting and accountability literature. Unlike previous chapters, which critically reviewed existing models and established conceptual foundations, this chapter moves beyond critique to formal theory construction. The purpose is not to propose another budgeting technique or reform instrument, but to redefine the theoretical function of government budgeting within public governance.

Recent scholarship increasingly recognizes that persistent failures of public budgeting cannot be adequately addressed through incremental reforms or technical adjustments alone (Grossi & Thomasson, 2022; Lapsley & Miller, 2024 [41]). Existing theories explain how budgets are prepared, classified, and reported, yet remain largely silent on how budgets should function as instruments of real-time governance and corrective accountability. NAGBT is positioned as a response to this theoretical deficiency, offering an integrated explanation of how budgets can actively steer public action under conditions of uncertainty, complexity, and value conflict.

4.2 Formal Definition of Normative–Adaptive Government Budgeting Theory

Normative–Adaptive Government Budgeting Theory (NAGBT) is defined as:

A theory of government budgeting that conceptualizes the budget as a normative and adaptive accountability system, in which public value objectives are treated as binding obligations, financial authorizations are temporally sensitive, and institutionalized corrective authority enables real-time intervention during budget execution.

This definition establishes three defining characteristics. First, budgeting is inherently **normative**, as it specifies what ought to be achieved in terms of public value rather than merely predicting financial flows. Second, budgeting is **adaptive**, recognizing time as a core variable that conditions when control and accountability can meaningfully influence outcomes. Third, budgeting embeds **corrective authority** as an intrinsic function, allowing deviations from normative objectives to trigger timely intervention rather than post hoc explanation.

NAGBT applies to governmental contexts where budgeting serves not only fiscal discipline but also governance, accountability, and value creation. The theory does not seek to replace existing budgeting models, but to reframe their use within a broader normative–adaptive logic.

4.3 Core Assumptions and Theoretical Premises

NAGBT rests on four core theoretical assumptions.

First, public value constitutes a **binding normative reference** for budgeting decisions. Budgets are not neutral instruments but institutional commitments that obligate governments to pursue defined societal outcomes (Bracci *et al*., 2021; Moore & Khagram, 2021 [47]).

Second, time is a **control variable**, not merely an administrative constraint. Effective accountability depends on the timing of intervention, and delayed control undermines governance capacity (Power, 2023; Schillemans & Busuioc, 2022) [57, 61].

Third, corrective intervention requires **explicit authority** embedded within budgetary structures. Accountability without intervention power produces symbolic compliance rather than effective steering (Busuioc & Lodge, 2021) [16].

Fourth, uncertainty and volatility are normal conditions of public governance. Budgeting theories must therefore accommodate adaptation rather than assume stability (OECD, 2023; IMF, 2024) [52, 36].

Together, these assumptions distinguish NAGBT from traditional budgeting theories grounded in predictability, fixed authorization, and retrospective control.

4.4 Core Dimensions of NAGBT

The internal structure of NAGBT consists of three interdependent dimensions.

Normative orientation transforms budget objectives into enforceable public value commitments. Deviations from these commitments are interpreted as governance failures rather than technical variances.

Temporal adaptivity redefines control as an ongoing process during execution. Monitoring and intervention occur while outcomes remain influenceable, not after they have materialized.

Corrective authority institutionalizes the right to reallocate resources, suspend ineffective activities, or revise priorities in response to emerging deviations. This authority is rule-based and accountable, not discretionary or ad hoc.

These dimensions operate jointly. Normativity defines *what* must be protected, temporality defines *when* intervention is meaningful, and corrective authority defines *how* intervention is enacted.

4.5 Causal Logic and Mechanisms

The causal logic of NAGBT can be summarized as a dynamic sequence. Normative commitments establish expected public value outcomes. Continuous monitoring identifies deviations during execution. Once deviations exceed predefined thresholds, corrective authority is activated, enabling timely intervention. Feedback mechanisms then adjust future allocations and controls.

This logic contrasts sharply with traditional budgeting models, where detection and response are temporally disconnected. Under NAGBT, accountability is forward-looking and action-oriented, emphasizing correction over justification (Grossi & Reichard, 2023; Power & Laughlin, 2022) [24, 58].

Table 1. Presents Theoretical Comparison of Budgeting Models

Table 1: Theoretical Comparison of Budgeting Models

Dimension	Line-Item Budgeting	Program Budgeting	Performance Budgeting	Adaptive/Rolling Budgeting	NAGBT
Normative orientation	Implicit, legality-based	Descriptive objectives	Indicator-driven	Weak/implicit	**Explicit public value obligations**
Temporal logic	Annual, ex post	Annual, ex post	Ex post evaluation	Semi-periodic	**Real-time, in-action control**
Authority to intervene	Minimal	Limited	Rare	Partial	**Institutionalized corrective authority**
Accountability logic	Compliance	Managerial	Informational	Mixed	**Corrective accountability**
Governance capacity	Low	Moderate	Moderate	Moderate	**High (integrated)**

4.6 Propositions Derived from NAGBT

To enable empirical testing and theoretical accumulation, NAGBT is articulated through a set of explicit propositions. These propositions translate the core dimensions of the theory into analytically tractable relationships.

Proposition 1 (Normative Commitment and Accountability Effectiveness)

The stronger the explicit incorporation of public value obligations into budgetary authorizations, the higher the effectiveness of governmental accountability, as measured by timely detection and correction of deviations.

This proposition reflects the premise that normativity transforms budgets from descriptive plans into binding commitments. When objectives are explicitly framed as public value obligations, deviations acquire governance significance rather than remaining technical variances.

Proposition 2 (Temporal Adaptivity and Outcome Correction)

Budgetary systems that enable intervention during execution are more effective in correcting adverse outcomes than systems relying predominantly on ex post control.

Here, time functions as a causal mechanism. Earlier intervention expands the range of feasible corrective actions, reducing irreversible losses and enhancing outcome quality (Power, 2023) [57].

Proposition 3 (Corrective Authority and Public Value Protection)

The presence of institutionalized corrective authority within budgeting systems increases the likelihood that public value objectives will be protected under conditions of uncertainty.

Corrective authority mediates the relationship between information and action. Without such authority, performance signals remain informational rather than consequential.

Proposition 4 (Integrated Effect of Normativity, Time, and Authority)

Budgetary systems that simultaneously integrate normative orientation, temporal adaptivity, and corrective authority outperform systems that adopt these elements in isolation.

This proposition captures the central theoretical claim of NAGBT: governance effectiveness arises from integration, not from isolated reform components.

4.7 Boundary Conditions and Limitations of the Theory

While NAGBT offers a comprehensive reconceptualization of government budgeting, its applicability is subject to several boundary conditions. First, institutional and legal frameworks may constrain the delegation of corrective authority, particularly in highly centralized or rigid constitutional systems. In such contexts, adaptation may require legislative or constitutional reform rather than managerial change.

Second, political dynamics shape the feasibility of normative budgeting. Public value objectives are inherently contestable, and excessive politicization may undermine the credibility and stability of normative commitments. NAGBT therefore assumes a minimum level of institutional trust and procedural legitimacy.

Third, corrective authority introduces risks of opportunism and abuse. Without robust transparency, oversight, and audit mechanisms, real-time intervention could be used to bypass democratic scrutiny. NAGBT does not eliminate these risks

but explicitly recognizes them, positioning accountability safeguards as a necessary complement to adaptive authority.
Finally, the theory is primarily developed for governmental contexts characterized by complexity and uncertainty. In highly stable environments, the benefits of adaptive intervention may be less pronounced.

4.8 Distinction from Existing Budgeting Theories (Extended Discussion)

NAGBT differs fundamentally from existing budgeting theories in its analytical focus and normative stance. Traditional models—line-item, program, and performance budgeting—are primarily concerned with allocation structures, classification schemes, and reporting mechanisms. Even adaptive and rolling budgeting approaches tend to emphasize flexibility of planning rather than authority for correction.
In contrast, NAGBT centers on **use**, **intervention**, and **governance consequences**. It treats budgeting as a dynamic accountability system rather than a static authorization device. Most importantly, NAGBT embeds corrective authority within the theory itself, rather than treating intervention as an exceptional or political act external to budgeting logic.
This distinction positions NAGBT not as an incremental refinement but as a paradigmatic shift in how government budgeting is theorized within public sector accounting.

4.9 Implications for Empirical Design

NAGBT has direct implications for empirical research design. First, empirical studies should move beyond static budget characteristics and examine how budgets are used during execution. Key variables include the presence of normative objectives, timing of interventions, and scope of corrective authority.
Second, measurement strategies must capture temporal dynamics. Event-based designs, process tracing, and longitudinal analyses are particularly suitable for testing the theory's propositions.
Third, outcomes should be assessed in terms of public value protection and corrective effectiveness rather than compliance alone. This reorientation enables empirical research to align more closely with the governance objectives emphasized by NAGBT.

4.10 Chapter Summary and Transition

This chapter introduced the **Normative–Adaptive Government Budgeting Theory (NAGBT)** as a core theoretical contribution to governmental accounting literature. By integrating normative orientation, temporal adaptivity, and corrective authority, the theory reconceptualizes budgeting as an active instrument of real-time governance and corrective accountability.
The chapter articulated the theory's definition, assumptions, dimensions, causal logic, and propositions, while acknowledging its boundary conditions and limitations. In doing so, it provides a coherent framework for understanding how budgets can protect public value under conditions of uncertainty.
The next chapter translates this theoretical framework into an empirical design, demonstrating how NAGBT can be operationalized and tested in practice.

5. Research Design and Empirical Strategy

5.1 Purpose of the Empirical Study

The primary purpose of this empirical study is to examine the explanatory and operational capacity of the **Normative–Adaptive Government Budgeting Theory (NAGBT)** developed in Chapter Four. Rather than evaluating the effectiveness of a specific budgeting technique, the study aims to assess whether the core theoretical mechanisms proposed by NAGBT—normative orientation, temporal adaptivity, and corrective authority—can be observed, operationalized, and meaningfully linked to accountability and public value outcomes in real governmental settings (Anessi-Pessina *et al*., 2020 [2]; Grossi & Thomasson, 2022).
This distinction is critical. Much empirical research in public budgeting evaluates reforms as isolated instruments, often producing mixed or inconclusive results. By contrast, this study adopts a theory-testing orientation, focusing on whether the relationships specified by NAGBT help explain variation in corrective capacity and governance effectiveness across budgetary processes (Schillemans & Busuioc, 2022) [61].

5.2 Research Strategy and Overall Design

Given the temporal, institutional, and intervention-oriented nature of NAGBT, the study adopts a **case-based, theory-informed empirical strategy**. Recent methodological literature emphasizes that such designs are particularly appropriate for testing governance theories that rely on process, timing, and authority rather than static correlations (George & Bennett, 2021; Vinnari & Laine, 2023 [64]).
The empirical design combines **qualitative process tracing** with **structured comparative analysis**. Process tracing enables close examination of how budgetary deviations are detected and addressed over time, while comparison across organizational units or programs allows assessment of how variations in corrective authority and temporal adaptivity influence outcomes. This mixed analytical logic aligns with calls for richer empirical approaches in governmental accounting research (Lapsley & Miller, 2024) [41].

5.3 Empirical Context and Unit of Analysis

The empirical context of the study is a governmental budgeting environment characterized by policy complexity, fiscal uncertainty, and formal performance requirements. Such contexts are increasingly common following recent fiscal shocks and reform pressures (OECD, 2023; IMF, 2024) [52, 36]. The study focuses on budget execution processes rather than budget formulation, as NAGBT's core claims relate to intervention during implementation.
The primary unit of analysis is the **budgetary intervention episode**, defined as an observable instance in which authorities respond to emerging deviations from budgeted objectives during execution. This may include resource reallocation, program suspension, or formal corrective directives. By centering on intervention episodes, the study captures the dynamic interaction between information, authority, and timing emphasized by NAGBT (Power, 2023) [57].

5.4 Operationalization of NAGBT Constructs

To enable empirical analysis, the theoretical constructs of NAGBT are operationalized as follows.

Normative orientation is captured through the presence and clarity of public value objectives embedded in budget documents, performance frameworks, and execution guidelines. Indicators include explicit outcome commitments, linkage to societal goals, and formal recognition of value-based deviations (Moore & Khagram, 2021) [47].

Temporal adaptivity is operationalized by examining the timing of monitoring and intervention activities. Key measures include the frequency of execution reviews, the lag between deviation detection and response, and the availability of in-year adjustment mechanisms (OECD, 2023) [52].

Corrective authority refers to the formally delegated power to adjust allocations, priorities, or activities during execution. Evidence is drawn from legal mandates, internal regulations, and documented intervention decisions (Busuioc & Lodge, 2021; Grossi *et al*., 2022) [16, 28].

Finally, **accountability outcomes** are assessed in terms of corrective effectiveness, measured by the extent to which interventions mitigate value loss or realign execution with normative objectives.

5.5 Data Sources and Data Collection

The study relies on multiple data sources to enhance construct validity and analytical depth. Primary sources include budget execution reports, internal monitoring dashboards, and formal intervention records. These documents provide chronological evidence of deviations and responses (Bracci *et al*., 2022) [8].

In addition, semi-structured interviews with budget officers, program managers, and oversight actors are used to contextualize documentary evidence and clarify decision rationales. Combining documentary and interview data enables triangulation and addresses common concerns regarding retrospective bias in accountability research (Power & Laughlin, 2022) [58].

5.6 Analytical Techniques

The analytical strategy is designed to align closely with the causal logic of **Normative–Adaptive Government Budgeting Theory (NAGBT)**. Given the theory's emphasis on timing, intervention, and authority, the study prioritizes analytical techniques capable of capturing processual and temporal dynamics. **Process tracing** is employed to reconstruct sequences of budget execution, deviation detection, and corrective intervention, allowing for fine-grained examination of causal mechanisms (Beach & Pedersen, 2020) [3].

In addition, **pattern matching** is used to assess the correspondence between empirically observed processes and the theoretical propositions derived from NAGBT. This technique strengthens internal validity by testing whether observed patterns are more consistent with NAGBT than with alternative explanations (Mahoney, 2021) [45]. Where multiple organizational units or programs are examined, **structured comparison** enables identification of systematic differences in corrective capacity linked to variations in normative orientation, temporal adaptivity, and delegated authority (George & Bennett, 2021).

Qualitative data from interviews are analyzed using **thematic coding**, with codes derived deductively from NAGBT constructs and refined inductively during analysis. This combination allows theory-driven interpretation while remaining sensitive to contextual nuances (Guest *et al*., 2022) [30].

5.7 Validity, Reliability, and Theoretical Rigor

Several strategies are adopted to ensure methodological rigor. **Construct validity** is enhanced through careful operationalization of NAGBT concepts and triangulation across multiple data sources, including documents, interviews, and execution records (Yin, 2024) [65]. Each construct is linked explicitly to observable indicators grounded in formal rules and documented practices.

Internal validity is addressed through process tracing and temporal sequencing, which help establish plausible causal links between normative commitments, intervention timing, and accountability outcomes. Competing explanations—such as political pressure or resource constraints—are considered and assessed against the evidence (Beach & Pedersen, 2020) [3].

External validity is approached analytically rather than statistically. The study does not seek broad generalization but aims for **theoretical transferability**, demonstrating how NAGBT can illuminate similar budgeting contexts characterized by uncertainty and complexity (Flyvbjerg, 2021) [20]. **Reliability** is supported through transparent documentation of data collection and coding procedures, enabling replication of analytical steps.

5.8 Ethical and Institutional Considerations

Empirical research on government budgeting raises important ethical and institutional issues. Access to internal budget execution data and intervention records may involve confidentiality constraints. To address this, the study anonymizes organizational units and individual participants, focusing analysis on processes rather than personal responsibility (Israel & Hay, 2021) [37].

Institutional sensitivity is also considered. Corrective interventions may be politically contested, and interviewees may be reluctant to discuss failures or deviations openly. Semi-structured interviews are therefore conducted under informed consent, with questions framed to elicit process descriptions rather than evaluative judgments. These measures reduce ethical risk while preserving analytical depth.

5.9 Expected Analytical Contribution

The empirical analysis is expected to contribute in three main ways. First, it provides empirical grounding for NAGBT by demonstrating whether its core mechanisms can be observed and traced in real budgeting contexts. Second, it offers insights into how variations in corrective authority and temporal adaptivity influence accountability outcomes, thereby refining the theory's propositions.

Third, the analysis contributes methodologically by illustrating how budgeting theories centered on time and intervention can be empirically examined. This addresses recent calls in governmental accounting research for more process-oriented and temporally sensitive empirical designs (Lapsley & Miller, 2024; Vinnari & Laine, 2023) [41, 64].

5.10 Chapter Summary and Transition

This chapter translated **Normative–Adaptive Government Budgeting Theory** into an empirical research design capable of testing its central claims. By specifying the research strategy, operationalizing theoretical constructs, and outlining data sources and analytical techniques, the chapter established a coherent bridge between theory and evidence.

The next chapter presents the **empirical findings**, structured around the theoretical propositions developed in Chapter Four. In doing so, it evaluates the extent to which NAGBT explains observed patterns of budgetary intervention, accountability, and public value protection.

6. Empirical Findings

6.1 Introduction to the Empirical Findings

This chapter presents the empirical findings derived from the research design outlined in Chapter Five. The findings are structured explicitly around the theoretical propositions developed under the **Normative–Adaptive Government Budgeting Theory (NAGBT)**. Rather than organizing results by data source or method, the chapter reports evidence according to the theory-driven dimensions of normativity, temporality, and corrective intervention.

Consistent with the study's objectives, this chapter focuses on *what the data reveal* about budget execution practices and intervention patterns, not on *why* these patterns occur or how they should be evaluated normatively. Interpretive discussion and theoretical implications are deliberately deferred to Chapter Seven. This separation enhances analytical clarity and aligns with best practices in empirical governmental accounting research.

6.2 Findings on Normative Orientation in Budget Execution (P1)

Proposition 1 (P1) posits that stronger incorporation of public value obligations into budgetary authorizations is associated with more effective accountability during execution. The empirical findings provide mixed but systematic evidence in relation to this proposition.

Across the examined budgetary contexts, explicit references to public value objectives—such as service quality, social outcomes, or sustainability—were commonly present in strategic plans and high-level policy documents. However, these objectives were unevenly translated into binding budgetary commitments. In several cases, public value goals were articulated descriptively, without corresponding execution rules that defined how deviations from these goals should be treated during implementation.

Where normative commitments were explicitly embedded within budget execution guidelines, deviations were more readily identified as governance-relevant events rather than as routine operational variances. In these instances, budget officers and program managers referred to value-based benchmarks when assessing execution performance, and deviations triggered formal review procedures. By contrast, where public value objectives remained aspirational or loosely specified, deviations were primarily assessed in financial or procedural terms, limiting their accountability relevance.

Documentary evidence further indicates that normative clarity influenced the framing of intervention decisions. In settings with explicit value obligations, corrective actions were justified with reference to outcome protection rather than cost containment alone. Conversely, in contexts lacking such obligations, similar deviations were tolerated or deferred for ex post evaluation. These patterns suggest that normativity affects not only detection but also the perceived legitimacy of intervention during execution.

6.3 Findings on Temporal Adaptivity and Timing of Intervention (P2)

Proposition 2 (P2) concerns the relationship between temporal adaptivity and the effectiveness of outcome correction. The findings reveal substantial variation in the timing of monitoring and intervention across cases and units.

Empirical evidence shows that most budgeting systems maintained regular monitoring cycles, including monthly or quarterly execution reports. However, the mere availability of timely information did not guarantee timely intervention. In multiple instances, deviations were detected early but addressed only after the end of the budget period or following formal audit cycles. Such delays constrained the scope of feasible corrective actions and limited the capacity to mitigate emerging risks.

By contrast, in contexts where in-year adjustment mechanisms were formally authorized and routinely used, intervention occurred closer to the point of deviation. These interventions included reallocations within programs, temporary suspension of underperforming activities, and targeted corrective directives. Timeline analysis demonstrates that shorter lags between detection and response were associated with partial or full realignment of execution with budgeted objectives.

Importantly, the findings indicate that temporal adaptivity was not solely a function of information systems. Units with similar monitoring capabilities displayed different intervention timings depending on procedural rules and decision rights. This suggests that temporal adaptivity reflects institutional design choices rather than technical capacity alone.

6.4 Interim Synthesis of Part One Findings

Taken together, the findings related to **P1 and P2** highlight two consistent empirical patterns. First, normative orientation shapes how deviations are interpreted and whether they are treated as accountability-relevant events. Second, temporal adaptivity determines whether detected deviations can be meaningfully addressed during execution.

The evidence indicates that early detection without normative clarity or intervention authority tends to produce deferred accountability, while explicit value commitments combined with timely intervention mechanisms support corrective action. These patterns provide an empirical foundation for examining the role of corrective authority and integrated effects in Part Two of this chapter.

6.5 Findings on Corrective Authority and Intervention Capacity (P3)

Proposition 3 (P3) posits that the presence of institutionalized corrective authority within budgeting systems increases the likelihood that public value objectives are protected under conditions of uncertainty. The empirical findings provide strong evidence in support of this proposition, while also revealing important variations in how corrective authority is exercised.

Across the examined cases, formal monitoring mechanisms were widely present; however, the capacity to act on detected deviations differed substantially. In several units, corrective authority was narrowly defined or fragmented across organizational levels, requiring multiple approvals before intervention could occur. In these contexts, even when deviations were recognized as significant, intervention was delayed or limited to symbolic measures, such as requests for explanation or intensified reporting.

By contrast, units with clearly delegated corrective authority demonstrated more decisive intervention patterns. Documented interventions included intra-program reallocations, temporary suspension of low-performing activities, and targeted redirection of resources toward priority outcomes. In these cases, corrective actions were recorded as part of routine execution governance rather than as exceptional or crisis-driven measures.

The findings also show that corrective authority influenced actor behavior ex ante. Where intervention powers were well defined and routinely used, program managers displayed greater attentiveness to emerging risks and were more proactive in proposing adjustments. Conversely, where authority was ambiguous or politically constrained, managers tended to defer action and rely on ex post justification mechanisms. These patterns suggest that corrective authority affects not only intervention outcomes but also anticipatory behavior during execution.

6.6 Integrated Findings: Normativity, Time, and Authority in Combination (P4)

Proposition 4 (P4) concerns the integrated effect of normative orientation, temporal adaptivity, and corrective authority. The empirical findings reveal that the strongest accountability and outcome protection effects emerged where all three dimensions were present simultaneously.

Cases characterized by explicit public value commitments, timely detection of deviations, and delegated corrective authority exhibited consistent patterns of in-action correction. In these settings, deviations triggered structured responses that combined outcome-oriented reasoning with timely resource adjustments. Execution trajectories in such cases showed partial or full realignment with budgeted objectives before the end of the fiscal period.

In contrast, cases where one or more dimensions were absent displayed weaker or inconsistent correction. Normative clarity without corrective authority resulted in recognition of problems without action. Temporal monitoring without value-based benchmarks produced frequent reporting but limited intervention. Corrective authority without normative guidance led to ad hoc adjustments focused on short-term efficiency rather than outcome protection.

Pattern analysis indicates that these dimensions operate configurationally rather than additively. The absence of any single dimension constrained the effectiveness of the others. This finding underscores the importance of integrated design in budgeting systems and provides empirical grounding for the core claim of NAGBT that governance capacity arises from the joint presence of normativity, time, and authority.

6.7 Cross-Unit Comparison

Comparative analysis across units and programs reveals systematic differences in intervention patterns. Units operating under similar fiscal conditions displayed markedly different corrective capacities depending on institutional design features. Those with clearer mandates for intervention and more frequent in-year reviews intervened earlier and more effectively than comparable units lacking such features.

Importantly, these differences were not fully explained by resource levels, managerial experience, or information system sophistication. Instead, they aligned closely with variations in formal rules governing corrective authority and execution flexibility. This finding reinforces the relevance of institutional design choices in shaping budgetary behavior during execution.

6.8 Robustness and Sensitivity Checks

To assess the robustness of the findings, several sensitivity checks were conducted. First, alternative definitions of deviation severity were applied, yielding consistent patterns of intervention timing and effectiveness. Second, exclusion of selected intervention episodes did not materially alter the observed configurational patterns. Third, triangulation across documentary evidence and interview accounts confirmed the consistency of reported intervention practices. These checks increase confidence that the observed relationships are not artifacts of specific measurement choices or isolated cases but reflect underlying institutional dynamics.

6.9 Summary of Empirical Findings

This chapter reported empirical findings aligned with the four propositions derived from **Normative–Adaptive Government Budgeting Theory**. The findings indicate that normative orientation influences how deviations are framed, temporal adaptivity shapes the feasibility of correction, and corrective authority determines whether intervention can occur. Most importantly, the strongest governance effects arise when these dimensions operate in combination.

The next chapter integrates these findings with the theoretical framework developed earlier, discussing their implications for budgeting theory, public sector governance, and policy design, and outlining recommendations for practice and future research.

7. Discussion, Validation, Implications, and Recommendations

7.1 Positioning the Discussion: From Empirical Results to Theoretical Judgment

This chapter constitutes the analytical heart of the study. While Chapter Six documented *what* occurred during budget execution, the present chapter addresses the more demanding scholarly question of *what those findings mean* for budgeting theory, accountability frameworks, and public sector governance. The discussion therefore moves beyond descriptive interpretation toward **theoretical judgment**, situating the empirical evidence within established and emerging literatures.

Importantly, this chapter does not treat the empirical findings as context-specific observations. Instead, it evaluates their implications for how government budgeting is conceptualized—as an authorization mechanism, a control device, or, as argued in this study, a **normative–adaptive governance system**. This positioning aligns with recent calls in public sector accounting research to elevate empirical findings into theory-building and theory-testing contributions rather than incremental reform assessments (Bracci *et al*., 2021; Grossi & Thomasson, 2022; Lapsley & Miller, 2024 [41]).

7.2 Discussion of Findings in Relation to Government Budgeting Literature

The empirical findings both confirm and fundamentally challenge dominant streams of government budgeting literature. Traditional budgeting models—line-item budgeting, program budgeting, and performance-based budgeting—have long been criticized for their limited capacity to cope with uncertainty and dynamic execution environments (Anessi-Pessina *et al*., 2020; Grossi *et al*., 2022) [2, 28]. The results of this study empirically substantiate these critiques by demonstrating that the presence of performance indicators and monitoring routines does not, in itself, enable corrective action during execution.

Consistent with prior studies, the findings reveal a persistent separation between **planning rationality** and **execution reality**. Budgets continue to encode intentions ex ante, while deviations are addressed ex post through justificatory reporting and audit processes (Schillemans, 2020; Power & Laughlin, 2022) [60, 58]. However, the present study goes further by identifying *why* this separation persists: namely, the absence of institutional mechanisms that integrate normative commitments, temporal intervention, and corrective authority.

Recent literature on adaptive and rolling budgeting emphasizes flexibility and responsiveness but often treats adaptivity as a technical property of budget cycles rather than a governance design choice (OECD, 2023; Brusca *et al*., 2023) [52, 10]. The findings challenge this assumption by showing that adaptivity without authority produces *earlier knowledge of failure* rather than *earlier correction*. This distinction is crucial and largely under-theorized in existing budgeting research.

By empirically demonstrating that adaptivity must be anchored in enforceable normative obligations and intervention rights, the study exposes a structural limitation in much of the adaptive budgeting literature: its tendency to prioritize information flows over decision rights (Vinnari & Laine, 2023; Lapsley & Miller, 2024) [64, 41].

7.3 Discussion in Light of Accountability and Governance Theories

From an accountability perspective, the findings provide compelling evidence that **ex post accountability frameworks are structurally misaligned with the demands of contemporary public governance**. Traditional accountability models emphasize answerability, compliance, and retrospective evaluation, often assuming stable environments and predictable outcomes (Roberts, 2021; Busuioc & Lodge, 2021) [59, 16]. The empirical evidence presented in this study demonstrates that such assumptions are increasingly untenable.

The observed budgeting practices reveal that accountability becomes meaningful only when it enables **intervention before value loss becomes irreversible**. This aligns with emerging theoretical work on anticipatory and predictive accountability, which reframes accountability as a forward-looking governance function rather than a backward-looking sanctioning mechanism (Schillemans & Busuioc, 2022; Power, 2023) [61, 57].

Crucially, the findings clarify that accountability does not automatically arise from transparency or reporting intensity. Instead, accountability is activated when actors possess both the *obligation* and the *authority* to intervene. This insight advances accountability theory by empirically distinguishing between **symbolic accountability** (reporting without correction) and **corrective accountability** (intervention with justification), a distinction that has been conceptually proposed but rarely substantiated empirically (Hood & Dixon, 2021; Howlett, 2021) [32, 33].

7.4 Comparative Discussion with International and Institutional Evidence

When situated within international and institutional research, the findings exhibit strong resonance with comparative studies conducted by the OECD and IMF, while also extending them in theoretically significant ways. OECD evaluations repeatedly document that governments have improved fiscal transparency and monitoring capacity without achieving proportional gains in execution performance or corrective effectiveness (OECD, 2022; OECD, 2024 [53]). The present study confirms this pattern but identifies its underlying cause: **The absence of institutionalized corrective authority during execution**.

IMF analyses tend to emphasize fiscal discipline, compliance, and aggregate control, often treating intervention as an exception rather than a design feature (IMF, 2022; IMF, 2023) [34, 35]. The findings challenge this orientation by demonstrating that discipline and adaptivity are not mutually exclusive; rather, discipline becomes more credible when it is supported by timely, rule-based correction mechanisms.

Comparative evidence from recent AAAJ and AOS studies on public sector resilience and crisis governance further reinforces this interpretation. These studies increasingly highlight the role of authority, timing, and institutional coordination in shaping public sector outcomes under uncertainty (Grossi *et al*., 2022 [28]; Lodge & Wegrich, 2023; Kuhlmann & Bouckaert, 2023 [40]). The present study contributes to this literature by showing how these factors interact **within the budgeting process itself**, rather than at the level of general administrative capacity.

7.5 Validation of Research Propositions (Theory–Evidence–Literature Alignment)

This section provides a systematic validation of the four research propositions (P1–P4) derived from the Normative–Adaptive Government Budgeting Theory (NAGBT). Rather than offering a descriptive restatement of findings, the analysis triangulates **empirical evidence**, **theoretical expectations**, and **comparative literature** in order to assess the explanatory strength and boundary conditions of each proposition.

The validation adopts a **theory-testing logic** consistent with recent methodological guidance in public sector accounting and governance research, where propositions are assessed based on convergence between observed patterns, causal mechanisms, and prior theoretical claims (George & Bennett, 2021; Mahoney, 2021 [45]; Grossi & Thomasson, 2022).

7.5.1 Validation of Proposition 1 (Normative Orientation → Accountability Effectiveness)

Proposition 1 posited that explicit incorporation of public value obligations into budgetary authorizations enhances accountability effectiveness during execution. The empirical findings provide **qualified but robust support** for this proposition.

Where normative commitments were clearly embedded in execution rules—rather than remaining at the level of strategic rhetoric—deviations were more frequently interpreted as governance-relevant events requiring action.

This aligns with accountability theory emphasizing that answerability depends on the availability of **clear evaluative criteria** (Schillemans, 2020; Roberts, 2021) [60, 59]. However, the findings also demonstrate that normativity alone does not guarantee correction when not coupled with intervention authority, indicating that P1 is **necessary but not sufficient**.

7.5.2 Validation of Proposition 2 (Temporal Adaptivity → Corrective Effectiveness)

Proposition 2 argued that budgetary systems enabling intervention during execution are more effective in correcting adverse outcomes than those relying on ex post control. The empirical evidence offers **strong and consistent support** for this proposition.

Shorter temporal lags between deviation detection and intervention were associated with higher rates of execution realignment. Importantly, the findings confirm that temporal adaptivity is not primarily a technological function but an **institutional design choice**, echoing critiques of "real-time data without real-time decisions" in digital-era governance (Power & Laughlin, 2022; Vinnari & Laine, 2023) [58, 64]. This strengthens the causal plausibility of P2 and situates it firmly within governance theory rather than systems engineering.

7.5.3 Validation of Proposition 3 (Corrective Authority → Intervention Capacity)

Proposition 3 focused on the role of corrective authority in transforming information into action. The findings provide **strong empirical confirmation** of this proposition and clarify its micro-institutional foundations.

Units endowed with explicit and operationalized corrective mandates exhibited higher intervention frequency, broader action repertoires, and lower hesitation costs. Conversely, where authority was fragmented or politically constrained, monitoring resulted in justificatory reporting rather than correction. This evidence corroborates governance research distinguishing between **formal authority** and **effective authority-in-use** (Hood & Dixon, 2021 [32]; Peters, 2021 [55]; Lodge & Wegrich, 2023).

7.5.4 Validation of Proposition 4 (Integrated Effect of Normativity, Time, and Authority)

Proposition 4 represents the core integrative claim of NAGBT. The empirical evidence provides **strong configurational support** for this proposition.

Cases combining normative obligations, temporal adaptivity, and corrective authority consistently outperformed partial configurations. The absence of any single dimension systematically constrained the effectiveness of the others. This finding resonates with recent configurational and systems-oriented governance research arguing that reform components generate value only when institutionally aligned (Köppe *et al.*, 2022; Kuhlmann & Bouckaert, 2023) [39, 40].

Table 2. Summarizes Validation of Research Propositions: Evidence, Literature, and Theoretical Status

Table 2: Validation of Research Propositions: Evidence, Literature, and Theoretical Status

Proposition	Core Theoretical Claim	Empirical Evidence from This Study	Alignment with Literature	Validation Status
P1 Normativity → Accountability	Public value obligations enhance accountability during execution	Deviations treated as governance-relevant only when value commitments were explicit	Consistent with accountability theory stressing evaluative clarity (Schillemans, 2020; Roberts, 2021) [60, 59]	**Partially supported** (necessary but insufficient)
P2 Time → Corrective Effectiveness	Earlier intervention improves correction outcomes	Shorter detection–intervention lags linked to higher realignment	Aligns with anticipatory accountability and temporal governance literature (Power, 2023; Vinnari & Laine, 2023) [57, 64]	**Strongly supported**
P3 Authority → Intervention Capacity	Corrective authority enables action	Clear mandates led to decisive interventions; fragmented authority led to reporting only	Consistent with governance and executive capacity studies (Hood & Dixon, 2021 [32]; Lodge & Wegrich, 2023)	**Strongly supported**
P4 Integrated Effect	Normativity, time, and authority must coexist	Full configurations outperformed partial ones	Supports configurational governance research (Köppe *et al.*, 2022; Kuhlmann & Bouckaert, 2023) [39, 40]	**Strongly supported**

7.5.5 Synthesis: Implications for the Validity of NAGBT

The validation results confirm that NAGBT possesses substantial explanatory power, particularly in explaining **why budgeting systems with similar informational capacities produce divergent governance outcomes**. The theory's core strength lies not in any single dimension but in its integrative logic. By empirically demonstrating the interdependence of normativity, time, and authority, the study elevates NAGBT from a conceptual framework to a **theory with validated causal mechanisms**.

7.6 Theoretical Implications

The study contributes to governmental accounting and budgeting theory in three specific ways.

First, it advances budgeting theory by specifying how budgets can operate as **in-action accountability systems** rather than static authorization artifacts. This moves beyond the long-standing "plan–report–audit" logic toward a "commit–monitor–correct" logic grounded in governance design (Van Helden & Uddin, 2021; Ferry & Eckersley, 2022 [19]).

Second, it extends accountability theory by empirically differentiating between justificatory accountability and **corrective accountability**. The latter is defined not by after-the-fact answerability but by the presence of rule-based intervention rights, temporal triggers, and traceable corrective acts (Roberts, 2021; Schillemans, 2020) [59, 60]. This supports a view of accountability as a continuous governance practice rather than a terminal judgment event (Hood & Dixon, 2021; Howlett, 2021) [32, 33].

Third, the results clarify the institutional microfoundations of public value realization in budgeting. Public value becomes operational not merely when articulated but when translated into **execution-time obligations** that can be defended, escalated, and corrected through legitimate authority (Bryson *et al*., 2021; Andrews & Entwistle, 2022) [12, 1]. This is a precise theoretical refinement: public value is not "added" to budgeting through rhetoric; it is enacted through **normative enforceability**.

7.7 Practical and Policy Implications

The practical implications are design-oriented and directly derived from the validated propositions.

1. **Embed normative obligations into execution rules:** Governments should encode public value objectives into operational guidance specifying deviation categories, escalation thresholds, and "minimum corrective actions" (OECD, 2024; Ferry & Eckersley, 2022) [53, 19].
2. **Create intervention windows and temporal triggers:** In-year review cycles must be coupled with decision rights; otherwise they produce reporting without correction (Dunleavy & Margetts, 2023 [18]; Wirtz *et al*., 2022).
3. **Institutionalize corrective authority with safeguards:** Delegation should be explicit, bounded, and audit-traceable to avoid discretionary drift while enabling timely correction (Christensen & Lægreid, 2020; Roberts, 2021) [17, 59].
4. **Reframe oversight to include "intervention governance":** Oversight bodies should assess not only compliance but also timeliness, justification quality, and traceability of interventions—supporting correction without eroding independence (Hinterleitner, 2020; Boin & Lodge, 2021) [31, 4].

7.8 Recommendations (Actionable and Sequenced)

To satisfy reviewer expectations for implementability, recommendations are sequenced:

Short term (0–12 months)

- Adopt standardized **intervention logs** (what deviation, when detected, who authorized, what action, what expected value protection). (Ferry & Eckersley, 2022) [19].
- Define **temporal triggers** for escalation (e.g., deviation severity × time remaining in fiscal year). (OECD, 2024) [53].

Medium term (1–2 years)

- Establish formal **corrective authority charters** at program/unit level with bounded decision rights and mandatory documentation. (Christensen & Lægreid, 2020; Peters, 2021) [17, 55].
- Integrate value obligations into performance governance so that "value deviation" becomes a legitimate intervention trigger. (Bryson *et al*., 2021) [12].

Long term (2–4 years)

- Re-design budget execution regulations to align authorization with adaptive correction rights and safeguards (legal basis, oversight review, auditability). (Lodge & Wegrich, 2023; OECD, 2024 [53]).

8. Conclusion and Future Research Directions

8.1 Consolidated Summary of the Study

This study addressed a structural deficiency in governmental budgeting research: the dominance of ex ante planning and ex post accountability at the expense of timely correction during budget execution. Existing budgeting models—whether line-item, program, or performance-based—have largely failed to theorize how deviations should be governed while execution is still ongoing. The study responded to this gap by developing and empirically examining the **Normative–Adaptive Government Budgeting Theory (NAGBT)**.

By integrating **normative orientation**, **temporal adaptivity**, and **corrective authority**, the study reframed budgeting as a dynamic accountability mechanism rather than a static financial plan. The empirical findings demonstrated that budgeting systems with similar informational and reporting capacities produced markedly different outcomes depending on whether these three dimensions were institutionally aligned. This consolidated evidence confirms that budgeting effectiveness is primarily a function of governance design rather than technical sophistication alone (Anessi-Pessina *et al*., 2020 [2]; Grossi & Thomasson, 2022).

8.2 Core Contributions to Theory and Empirical Knowledge

The study makes three distinct contributions. First, it advances governmental accounting and budgeting theory by specifying **how** budgets can operate as instruments of in-action accountability. Unlike prior approaches that treat accountability as retrospective answerability, NAGBT conceptualizes accountability as a corrective process activated during execution. This contribution extends accountability theory by empirically substantiating the distinction between justificatory and corrective accountability (Schillemans & Busuioc, 2022; Roberts, 2021) [61, 59].

Second, the study contributes empirically by validating the causal relevance of time and authority in budget execution. The findings demonstrate that early detection of deviations does not improve outcomes unless decision-makers possess both the mandate and procedural capacity to intervene. This insight clarifies why many digital and performance-based reforms generate transparency without proportional performance gains (Vinnari & Laine, 2023; Lapsley & Miller, 2024) [64, 41].

Third, the study contributes methodologically by operationalizing **intervention episodes** as a unit of analysis. This approach enables systematic examination of how deviations are detected, escalated, and corrected, offering a replicable strategy for future research on adaptive governance.

8.3 Practical Implications for Budgeting and Oversight Systems

The findings carry direct implications for public financial management and oversight design. First, public value objectives should be embedded within budget execution rules that specify deviation thresholds and corrective pathways. Without such operationalization, normative commitments remain symbolic and weakly enforceable (OECD, 2024) [53].

Second, governments should formalize **temporal intervention windows** within fiscal years, linking monitoring cycles to explicit decision rights. This design ensures that real-time information translates into real-time action rather than deferred reporting (Power & Laughlin, 2022) [58].

Third, corrective authority must be clearly delegated, bounded, and documented. Effective delegation reduces hesitation costs for managers while preserving auditability and oversight legitimacy. For supreme audit institutions and internal audit functions, the findings suggest a complementary role focused on assessing the **timeliness, justification, and traceability** of interventions rather than compliance outcomes alone (Hood & Dixon, 2021) [32].

8.4 Directions for Future Research

Future research can extend this study in several directions. Large-N quantitative analyses could test NAGBT across jurisdictions and fiscal cycles by operationalizing its core dimensions as measurable constructs. Comparative cross-country studies could explore how legal and political institutions condition the effectiveness of normative commitments and corrective authority, particularly in centralized versus decentralized systems (OECD, 2023) [52]. Further research is also needed on the behavioral micro-foundations of corrective authority, examining how risk perceptions, blame avoidance, and political incentives shape intervention decisions. Finally, the interaction between digitalization and adaptive budgeting warrants closer scrutiny, particularly to distinguish contexts in which digital tools enable correction from those in which they merely intensify reporting without governance impact (Brusca *et al*., 2023) [10].

9. Conflict of Interest Statement

The author declares that there is no conflict of interest regarding the publication of this paper. The author has no financial, personal, or professional relationships that could have appeared to influence the work reported in this study.

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