

**From budget design to budget execution in fragile states:
Inverted fiscal discipline and Institutional prioritisation**

**De la conception budgétaire à l'exécution budgétaire dans les
États fragiles : discipline budgétaire inversée et priorisation
institutionnelle**

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Abstract

In fragile states, formal fiscal discipline does not necessarily translate into the effective protection of social functions. This article examines this dissociation through an institutional analytical approach based on the case of Mali over the period 2019–2024. Drawing on national administrative budget data, it links ex ante budgetary design and ex post budgetary execution through descriptive indicators of execution ratios, execution gaps, and priority drift. The results show that budgetary priorities are already embedded at the design stage and are generally reinforced during execution under liquidity constraints: vital social functions such as health, education, and social protection tend to absorb adjustment pressures, whereas sovereignty-related and administrative expenditures are comparatively protected. The article conceptualises this recurring pattern as inverted fiscal discipline, that is, a configuration in which aggregate fiscal compliance coexists with persistent social fragility. Based on single-country evidence, the findings should be read as identifying an institutional pattern rather than a fully identified causal mechanism. Methodologically, the article contributes a reproducible ex ante/ex post framework for analysing effective budgetary prioritisation in fragile contexts.

Keywords: budgetary governance; state fragility; inverted fiscal discipline; public expenditure

JEL classification: E62, H50, H61

Résumé

Dans les États fragiles, la discipline budgétaire formelle ne se traduit pas nécessairement par une protection effective des fonctions sociales. Cet article examine cette dissociation à partir d'une approche analytique institutionnelle appliquée au cas du Mali sur la période 2019–2024. À partir de données administratives budgétaires nationales, il met en relation la conception budgétaire ex ante et l'exécution budgétaire ex post au moyen d'indicateurs descriptifs de ratio d'exécution, d'écart d'exécution et de dérive de priorité. Les résultats montrent que les priorités budgétaires sont déjà inscrites dans la phase de conception et qu'elles sont généralement renforcées au moment de l'exécution sous contrainte de liquidité : les fonctions sociales vitales, telles que la santé, l'éducation et la protection sociale, tendent à absorber les ajustements, tandis que les dépenses liées à la souveraineté et au fonctionnement administratif bénéficient d'une protection relative. L'article conceptualise cette régularité comme une forme de discipline budgétaire inversée, c'est-à-dire une configuration dans laquelle la conformité aux agrégats budgétaires coexiste avec une fragilité sociale persistante. Fondés sur l'évidence d'un cas unique, ces résultats doivent être lus comme l'identification d'un schéma institutionnel plutôt que comme la démonstration d'un mécanisme causal pleinement établi. Sur le plan méthodologique, l'article propose un cadre reproductible d'analyse ex ante/ex post de la priorisation budgétaire effective dans les contextes de fragilité.

Mots-clés : gouvernance budgétaire ; fragilité étatique ; discipline budgétaire inversée ; dépenses publiques

Classification JEL : E62, H50, H61

Introduction

In many fragile states, budget laws display an apparent compliance with the principles of fiscal discipline—deficit containment, wage bill control, procedural rationalisation, and alignment with formal macroeconomic frameworks. Yet this discipline coexists with persistently fragile social outcomes, marked by the under-protection of vital functions such as health, education, social protection, and basic services, as well as by the sustained vulnerability of public investment. This contrast raises a central puzzle of budgetary governance in fragile contexts: how can formally disciplined budgets generate institutionally and socially fragile trajectories?

Dominant explanations attribute this gap primarily to failures of execution. Poor outcomes are commonly explained by limited administrative capacity, procedural rigidities, or recurrent exogenous shocks, while budgetary design itself is generally assumed to be broadly adequate (Alesina & Perotti, 1996; Allen et al., 2019). From this perspective, improving social outcomes mainly requires technical reforms of public financial management, such as results-based budgeting or strengthened control mechanisms. However, this interpretation leaves largely unexplored the possibility that fragility may also be embedded in the structure of budgetary design itself.

This article examines this possibility by jointly analysing budgetary design (*ex ante*) and budgetary execution (*ex post*). It addresses the following question: how do *ex ante* budgetary priorities and *ex post* execution patterns combine to reproduce socially fragile outcomes under conditions of formal fiscal discipline? Building on this perspective, the analysis formulates three analytical expectations. First, expenditures associated with sovereignty-related functions are expected to display higher execution ratios than those associated with vital social functions. Second, budget execution is expected to reinforce rather than correct the hierarchy of priorities embedded in budgetary design. Third, the relative adjustment of vital functions is expected to recur over time, indicating a stable institutional pattern rather than isolated shocks.

Methodologically, the study adopts an institutional analytical approach based on the systematic linkage of *ex ante* and *ex post* budgetary data using national administrative sources. It relies on descriptive indicators—execution ratios, execution gaps, and priority drift—to identify patterns of effective prioritisation. The Resilience Finance Law (RFL) framework is used as an analytical classification device to reveal institutional hierarchies within public budgets, without advancing normative policy prescriptions. The case of Mali (2019–2024) is mobilised for

analytical rather than statistical generalisation, providing single-country evidence of dynamics likely to operate in other fragile contexts characterised by liquidity and security constraints.

The article makes three contributions. First, it documents a recurrent pattern linking budgetary design and execution in fragile contexts. Second, it conceptualises this pattern as inverted fiscal discipline, defined as a configuration in which sovereignty-related and administrative expenditures are comparatively protected, while vital social functions serve as adjustment variables. Third, it proposes a reproducible *ex ante/ex post* framework for analysing effective budgetary prioritisation under constraint.

The remainder of the article is structured as follows. Section 2 reviews the literature and presents the analytical framework. Section 3 describes the data and methodological approach. Section 4 presents the empirical results. Section 5 discusses their implications for the analysis of budgetary governance in fragile states. Section 6 concludes.

1. Literature review

Budgets are conventionally analysed in public finance as rational instruments for allocating resources in pursuit of efficiency, macroeconomic stabilisation, and long-term development. Within this functionalist perspective, discrepancies between budgetary objectives and observed outcomes are typically interpreted as technical failures attributable to limited administrative capacity, procedural rigidities, or exogenous shocks (Alesina & Perotti, 1996; Allen et al., 2019). This approach has informed a large body of public financial management (PFM) reforms, which primarily target improvements in budget execution through enhanced procedures, controls, and performance-oriented tools.

A second strand of the literature has focused more specifically on budget execution and budget credibility, highlighting the prevalence of execution gaps, cash management constraints, and deviations between approved and actual expenditures in developing and fragile contexts (PEFA, World Bank, IMF). These works document the importance of liquidity constraints and administrative capacity in shaping budgetary outcomes. However, they generally maintain the implicit assumption that budgetary design is broadly adequate and that observed distortions arise mainly during implementation.

A growing body of institutional and political economy scholarship challenges this assumption by conceptualising budgets as institutional objects shaped by power relations and imperatives of political and organisational survival (Besley & Persson, 2011; Bräutigam et al., 2008;

Andrews, 2015). From this perspective, budgets are not neutral allocation devices but mechanisms through which states reproduce themselves, revealing implicit hierarchies of priority that extend beyond officially stated policy goals. Public expenditures are therefore not functionally equivalent: certain categories—such as defence, internal security, core administration, and debt service—directly condition the continuity of the state, whereas others, although socially essential, can be adjusted without immediately threatening institutional stability.

Despite these advances, an important analytical gap remains. Existing approaches tend to analyse either budgetary aggregates or budget execution, without systematically examining how priorities are embedded in budgetary design and subsequently reinforced or reconfigured during execution. In particular, the relationship between ex ante allocation choices and ex post execution dynamics remains underexplored in fragile contexts.

This article builds on and extends recent institutional work on budgetary governance in fragile states (Sissoko & Dembélé, 2026a, 2026b). These contributions have shown that the design of finance laws in fragile contexts reflects structural constraints related to liquidity, state legitimacy, and institutional survival, and that conventional budget frameworks may be misaligned with these constraints. However, they primarily focus on budgetary design or institutional architecture, without systematically linking design and execution within a unified empirical framework.

Against this background, this article makes three contributions to the literature. First, it provides an integrated analysis of budgetary design and execution, showing that observed distortions are not solely the result of implementation failures but are also rooted in the structure of budgetary design. Second, it conceptualises this configuration as inverted fiscal discipline, defined as a regime in which compliance with macro-fiscal rules coexists with the relative protection of sovereignty-related and administrative expenditures, while vital social functions serve as adjustment variables. Third, it proposes a reproducible ex ante/ex post analytical framework, based on descriptive indicators, for identifying patterns of effective budgetary prioritisation in fragile contexts.

2. Analytical framework and operationalisation of inverted fiscal discipline

Budgets are commonly analysed in public finance as rational instruments for allocating resources in pursuit of efficiency, macroeconomic stabilisation, and long-term development.

Within this functionalist perspective, discrepancies between budgetary objectives and observed outcomes are typically interpreted as technical failures attributable to limited administrative capacity or exogenous shocks (Alesina & Perotti, 1996; Allen et al., 2019).

In fragile contexts, however, this interpretation proves insufficient. Building on institutional and political economy approaches, this article conceptualises budgets as institutional objects shaped by power relations and imperatives of political and organisational survival (Besley & Persson, 2011; Bräutigam et al., 2008; Andrews, 2015). From this perspective, budgets operate as mechanisms through which states reproduce themselves, revealing implicit hierarchies of priority that extend beyond formally stated policy objectives.

A central implication of this approach is that public expenditures do not perform equivalent institutional functions. Certain categories—such as defence, internal security, core administration, and debt service—directly condition the continuity of the state as a political organisation. Others, although socially essential, can be adjusted without immediately threatening institutional stability. This asymmetry generates a hierarchy of budgetary priorities that is only partially visible in analyses based on aggregate indicators or formal fiscal rules.

This perspective motivates a distinction between formal fiscal discipline and institutional discipline. Fiscal discipline conventionally refers to the capacity of the state to contain deficits, control debt, and comply with macroeconomic rules. Institutional discipline, by contrast, refers to the capacity of the state to protect expenditures that are critical to its political and organisational reproduction. In fragile contexts, these two forms of discipline may diverge, producing configurations in which macro-budgetary compliance coexists with the structural compression of vital social functions.

To analyse these dynamics, the article adopts an *ex ante/ex post* analytical framework, treating budgets as sequential institutional processes rather than static legal texts. By jointly examining budgetary design (voted appropriations) and budgetary execution (actual payments under liquidity constraints), it becomes possible to identify not only stated priorities but also the mechanisms through which these priorities are reinforced or adjusted over the fiscal cycle.

Operationalising inverted fiscal discipline

On this basis, the article introduces the concept of inverted fiscal discipline as an analytical tool. Inverted fiscal discipline refers to a configuration in which formal compliance with aggregate

fiscal constraints coexists with a systematic relative protection of sovereignty-related and administrative expenditures, while vital social functions serve as adjustment variables.

Rather than being treated as a purely interpretative notion, inverted fiscal discipline is operationalised through a set of observable empirical implications. Three dimensions are used to identify this configuration.

First, a differential execution pattern is expected across institutional categories of expenditure. Expenditures associated with sovereignty-related functions are expected to display higher execution ratios than those associated with vital social functions.

Second, execution is expected to modify the relative weight of expenditure categories. This is captured through priority drift, defined as the difference between the share of a given category in executed expenditures and its share in voted expenditures. A positive drift for sovereignty-related expenditures and a negative drift for vital functions indicate a reinforcement of institutional prioritisation during execution.

Third, the configuration is expected to display temporal stability. If similar patterns are observed across several fiscal years, this suggests the presence of a stable institutional regime rather than isolated adjustments linked to specific shocks.

Taken together, these criteria provide a rule of analytical identification. A configuration is interpreted as inverted fiscal discipline when (i) vital expenditures display lower execution ratios than sovereignty-related expenditures, (ii) execution increases the relative weight of sovereignty-related and/or administrative expenditures compared with the design stage, and (iii) these patterns recur over time.

To implement this framework, the analysis relies on the Resilience Finance Law (RFL) classification, which groups expenditures into three analytical blocks: VITAL, SOVEREIGNTY, and ADMIN. This classification does not constitute a normative taxonomy of public expenditure, but a stable analytical device designed to reveal institutional prioritisation within budgets. The correspondence between official budgetary functions and RFL categories is defined ex ante and remains constant over the entire period in order to ensure comparability and to avoid opportunistic reclassification.

By combining this classificatory framework with ex ante/ex post budgetary data, the analysis provides a governance-oriented interpretation of inverted fiscal discipline. This interpretation

should be understood as identifying a recurrent institutional pattern rather than as establishing a fully specified causal mechanism.

3. Analytical expectations

Building on the conceptualisation and operationalisation of inverted fiscal discipline, the analysis is guided by a set of analytical expectations. These expectations do not constitute causal hypotheses in an econometric sense, but provide a theoretically informed framework for interpreting observed budgetary configurations in fragile contexts.

▪ H1. Differential execution across institutional functions.

Expenditures associated with sovereignty-related functions are expected to display higher execution ratios than those associated with vital social functions. This expectation is consistent with institutional and political economy approaches emphasising that state survival imperatives lead to the prioritisation of coercive and administrative capacities over socially redistributive functions (Besley & Persson, 2011; Bräutigam et al., 2008). Empirical studies on fragile states also suggest that liquidity constraints tend to disproportionately affect social spending relative to security-related expenditures (World Bank, 2017; Gupta et al., 2014).

▪ H2. Reinforcement of priorities during execution.

Budget execution is expected to reinforce rather than correct the hierarchy of priorities embedded in budgetary design. This expectation builds on the literature on budget credibility and cash management, which shows that execution under liquidity constraints often results in selective adjustment rather than proportional cuts, thereby amplifying initial allocation biases (Allen et al., 2019; PEFA, 2016). In fragile contexts, where treasury management plays a central role, execution becomes a mechanism of institutional prioritisation rather than neutral implementation.

▪ H3. Temporal stability of adjustment patterns.

The relative adjustment of vital social functions is expected to recur over time, indicating the presence of a stable institutional pattern rather than isolated responses to shocks. This expectation is consistent with institutionalist perspectives emphasising path dependence and the persistence of budgetary practices shaped by organisational routines and political equilibria (North, 1990; Andrews et al., 2017). Recurrent patterns of under-execution in specific expenditure categories therefore suggest the existence of a structured regime of prioritisation.

Taken together, these hypotheses provide an interpretative framework for assessing whether observed budgetary configurations are consistent with a regime of inverted fiscal discipline. The empirical analysis does not aim to test causal relationships, but to evaluate the extent to which observed patterns align with these theoretically grounded expectations.

4. Data and Method: An Ex Ante/Ex Post Institutional Approach

This article adopts an institutional analytical approach based on the systematic articulation of budgetary design (*ex ante*) and budgetary execution (*ex post*). The objective is not to establish causal relationships in an econometric sense, but to identify regularities in the way budgetary priorities are structured and implemented under conditions of constraint. By treating budgets as sequential institutional processes, the approach makes it possible to examine how priorities are both anticipated at the design stage and reinforced during execution.

The empirical analysis relies on national administrative budget data that ensure consistency between *ex ante* allocations and *ex post* outcomes. Two complementary data sources are used. The first consists of Mali's finance laws (initial and supplementary) covering the period 2019–2025, which provide information on budgetary design through voted payment appropriations. The second comprises quarterly and annual budget execution reports published by the national budget authority, which document liquidated expenditures. The analysis is restricted to the central government budget in order to isolate budgetary arbitrations more directly controlled by the state. Detailed descriptions of data sources, coverage, and harmonisation procedures are provided in the supplementary materials.

A key methodological choice concerns the use of liquidated expenditures as the primary indicator of execution. In fragile contexts, formal commitments and authorisations are often weakly correlated with effective disbursement capacity. Liquidation reflects the final decision to pay and therefore reveals which expenditures are effectively protected when liquidity becomes binding. In this sense, liquidated expenditures provide a more robust proxy for institutional prioritisation than planned or authorised spending.

To interpret budgetary data in institutional terms, expenditures are reclassified using the analytical framework referred to as the Resilience Finance Law (RFL). This framework distinguishes three institutional blocks: VITAL functions, which underpin social survival and minimal state legitimacy; SOVEREIGNTY functions, related to defence, internal security, and coercive capacity; and ADMIN functions, which ensure the organisational continuity of the

state. The classification is defined *ex ante* and remains constant over the entire period, ensuring comparability and limiting the risk of discretionary reclassification. The RFL is used strictly as an analytical device rather than as a normative reform proposal.

The empirical strategy relies on the systematic comparison of voted and executed expenditures across institutional blocks. Three descriptive indicators are used to capture effective budgetary prioritisation. The execution gap measures the difference between executed and voted expenditures. The execution ratio captures the relative level of execution. Priority drift measures changes in the relative weight of each block between design and execution. Together, these indicators allow for an assessment of whether execution corrects or reinforces priorities embedded at the design stage. Additional synthetic indices are used to summarise observed configurations; these are descriptive tools rather than performance metrics.

Several limitations should be acknowledged. First, the analysis focuses on a single country, which limits statistical generalisation but allows for analytical depth. Second, some years exhibit incomplete quarterly coverage, although the stability of observed patterns across sub-periods mitigates this limitation. Third, externally financed expenditures are excluded. While this choice narrows the empirical scope, it improves analytical consistency by focusing on budgetary arbitrations directly controlled by the state. Finally, as the approach is not based on causal identification, the results should be interpreted as evidence of institutional regularities rather than as fully specified causal mechanisms. Additional robustness checks and methodological details are provided in the supplementary materials.

5. Results: From Budget Design to Budget Execution

This section presents the empirical results of the joint analysis of budgetary design (*ex ante*) and budgetary execution (*ex post*), reclassified using the Resilience Finance Law (RFL) framework. The objective is to identify regularities in effective budgetary prioritisation, without normative inference. The analysis focuses on three dimensions: the structure of priorities at the design stage, the role of execution under constraint, and the temporal stability of observed patterns.

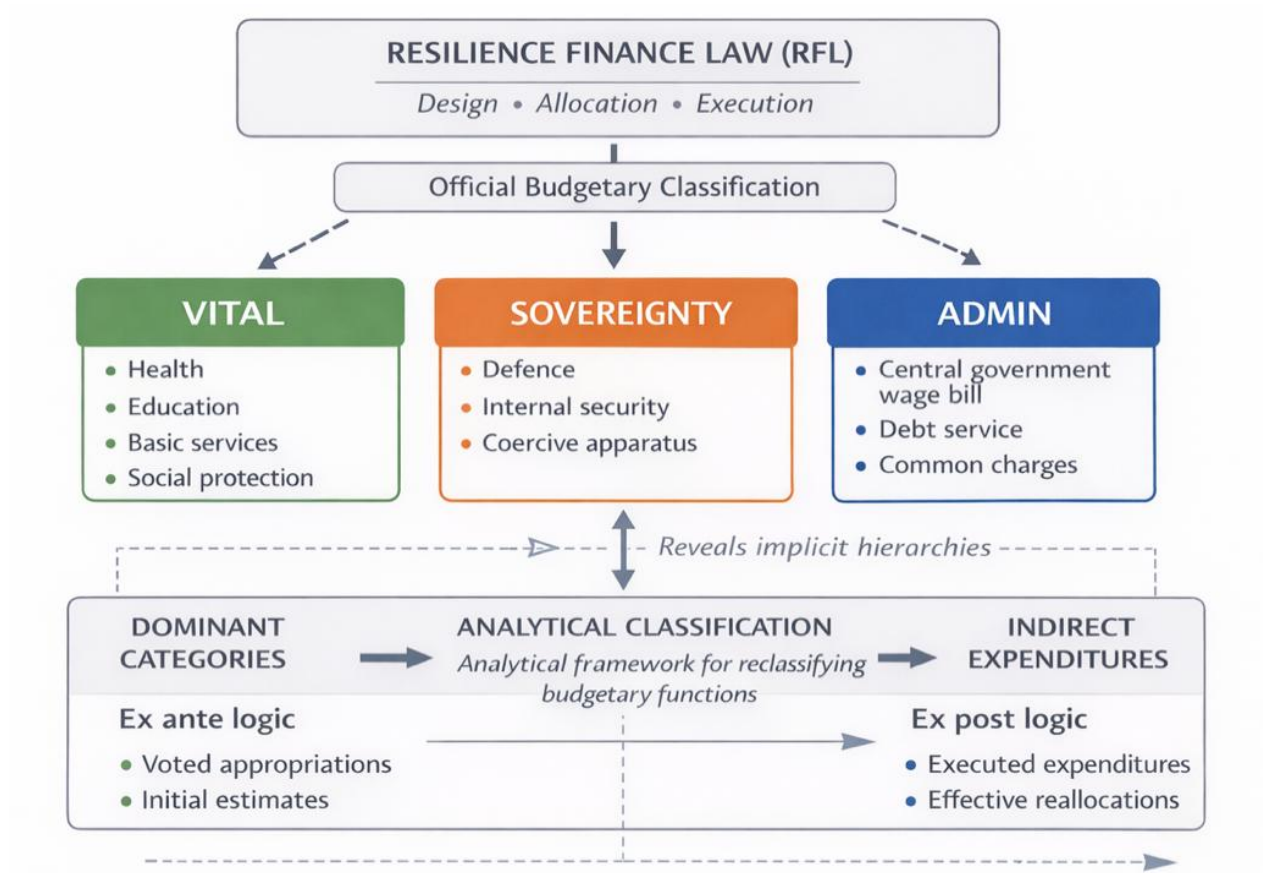
5.1 Priorities embedded at the design stage

Figure 1 presents the distribution of voted payment appropriations across institutional blocks. Analysis of voted appropriations reveals a stable hierarchy of budgetary priorities throughout the period. Sovereignty-related and administrative expenditures consistently absorb the largest

share of resources, while vital social functions remain secondary. This pattern is observed in both initial and supplementary finance laws, indicating that ex ante adjustments do not substantially alter the relative ordering of priorities.

This result is consistent with **H1**, which anticipates a structural differentiation across institutional functions. The design stage already reflects a prioritisation of functions associated with state continuity over socially redistributive functions.

Figure 1. Budgetary Priorities at the design stage (Voted Appropriations by Institutional Block)



Source : Author, 2026

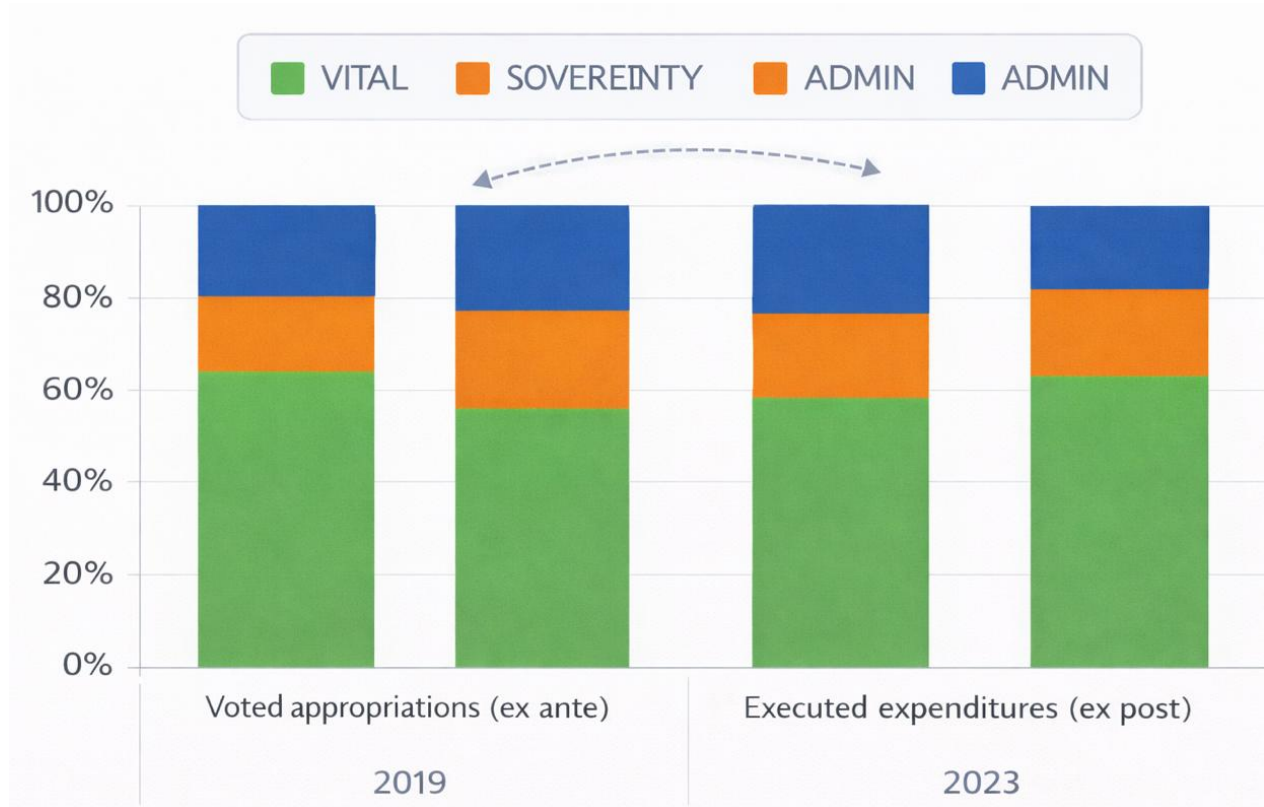
5.2 Execution as a mechanism of reinforcement

Comparisons between voted and executed expenditures reveal systematic execution gaps across institutional blocks.

Vital functions are consistently under-executed relative to voted amounts, while sovereignty-related expenditures display execution ratios close to or exceeding unity. Administrative

expenditures retain a dominant share of total execution, despite moderate adjustments in absolute levels.

Figure 2 Illustrates these dynamics by comparing the distribution of expenditures at the design and execution stages.



Source : Author, 2026

These results are consistent with **H2**, which posits that execution reinforces rather than corrects initial priorities. Under liquidity constraints, execution does not operate as a neutral implementation mechanism. Instead, it acts as a selective adjustment process that protects institutionally critical expenditures.

5.3 Stability over time and regime effects

A central feature of the results is their temporal stability. Despite successive security, political, health, and economic shocks, the relative ordering of institutional blocks remains broadly unchanged.

While variations are observed in nominal levels and execution rates, the hierarchy of priorities remains stable over time. This pattern is consistent with **H3**, which anticipates the recurrence of adjustment dynamics across fiscal periods.

The persistence of these patterns suggests that observed dynamics reflect a structural budgetary regime rather than conjunctural responses to shocks.

5.4 Summary indicators of inverted fiscal discipline

To provide a synthetic empirical assessment, **Table 1** reports average execution indicators for each institutional block over the period 2019–2024.

Table 1. Institutional Execution Indicators by Budgetary Block (2019–2024)

| Institutional block | Average execution ratio | Average execution gap | Priority drift |
|---------------------|-------------------------|-----------------------|----------------|
| VITAL | 0.84 | −16% | −4.3 |
| SOVEREIGNTY | 1.02 | +2% | +3.1 |
| ADMIN | 0.97 | −3% | +1.2 |

These indicators confirm the patterns identified above. Vital functions display systematically lower execution ratios and negative priority drift, indicating downward adjustment during execution. By contrast, sovereignty-related expenditures exhibit execution ratios close to or above unity and positive priority drift, reflecting relative protection under liquidity constraints. Administrative expenditures remain dominant, with limited adjustment.

Table 2. Summary of Budgetary Prioritisation across Institutional Blocks

| Institutional block | Design stage (ex ante) | Execution stage (ex post) | Direction of adjustment |
|---------------------|------------------------|---------------------------------|-------------------------|
| VITAL | Secondary priority | Under-executed | Negative |
| SOVEREIGNTY | Protected | Fully protected / over-executed | Positive |
| ADMIN | Dominant | Dominant | Neutral |

Taken together, these results are consistent with the presence of a systematic pattern in which execution reinforces the hierarchy embedded in budgetary design. This configuration aligns with the analytical expectations associated with inverted fiscal discipline, understood here as a recurrent institutional pattern rather than a fully specified causal mechanism.

Additional figures, robustness checks, and extended indicators are provided in the supplementary materials.

6. Discussion: Budgetary Governance under Constraint

The empirical results presented above invite a reappraisal of dominant interpretations of budgetary fragility in fragile states. Rather than reflecting solely implementation failures or temporary capacity constraints, the observed execution gaps appear broadly consistent with the hierarchy of priorities embedded in budgetary design. In this perspective, social fragility can be interpreted not only as a deviation from intended policy outcomes, but also as the outcome of an institutional configuration in which certain functions are systematically protected while others remain adjustable.

This interpretation shifts the analytical focus from execution failure to institutional prioritisation. Budgetary processes can thus be understood as mechanisms through which states reveal and reproduce implicit preferences under constraint. As suggested by institutionalist scholarship, budgets may function less as neutral allocation devices than as instruments that stabilise political and organisational orders in uncertain environments (North, 1990; Besley & Persson, 2011).

Within this framework, the results are consistent with the presence of a configuration that can be described as inverted fiscal discipline. In such a configuration, macro-budgetary compliance coexists with a relative protection of sovereignty-related and administrative expenditures, while vital social functions and investment are more exposed to adjustment. This pattern should not be interpreted as an anomaly or as necessarily irrational behaviour. Rather, it may reflect an institutional calculus in which the continuity of the state as a political organisation is prioritised over distributive or developmental objectives.

An important implication concerns the role of crises. The temporal stability of observed hierarchies, despite successive security, political, health, and economic shocks, suggests that crises do not necessarily disrupt existing budgetary priorities. In the case examined here, the results are consistent with the interpretation that crises may reinforce existing institutional hierarchies, potentially legitimising exceptional arbitrations that favour sovereignty-related functions. In this sense, crises may operate less as catalysts for transformation than as mechanisms that deepen discretionary governance.

These findings also have implications for the interpretation of public financial management reforms in fragile contexts. Many reform agendas—such as results-based budgeting, medium-term expenditure frameworks, or enhanced control systems—implicitly assume that social priorities are defined at the design stage but undermined during execution. The evidence presented here suggests that, when budgetary hierarchies are institutionally embedded, such instruments may contribute to stabilising existing allocation patterns rather than transforming them. This interpretation is consistent with broader critiques of reform approaches that focus on procedures while leaving underlying governance logics relatively unchanged (Andrews, 2015).

Taken together, the analysis suggests that budgetary governance in fragile contexts cannot be fully understood as a technical or procedural issue. It requires attention to the political and institutional conditions under which prioritisation occurs. Without such an understanding, reform efforts may risk reproducing, rather than altering, the patterns of protection and adjustment observed in this study.

Conclusion:

This article has examined the relationship between budgetary design (ex ante) and budgetary execution (ex post) in a fragile state context, using national administrative data and an institutional analytical framework. The analysis suggests that observed patterns of social fragility cannot be fully understood through execution failures alone, but are broadly consistent with a structured hierarchy of budgetary priorities embedded in the design stage and reinforced during execution under liquidity constraints.

Three main empirical findings can be summarised. First, budgetary design reflects a persistent prioritisation of sovereignty-related and administrative expenditures, while vital social functions occupy a secondary position. Second, execution dynamics tend to reinforce rather than correct this configuration, as indicated by execution gaps and priority drift. Third, these patterns display a high degree of temporal stability, suggesting the presence of a recurrent institutional configuration rather than isolated responses to shocks.

Within this framework, the concept of inverted fiscal discipline has been proposed as an analytical tool to interpret these dynamics. It refers to a configuration in which macro-fiscal compliance coexists with a relative protection of expenditures associated with state continuity, while vital social functions are more exposed to adjustment. This interpretation should be

understood as identifying a recurring institutional pattern rather than establishing a fully specified causal mechanism.

Methodologically, the article contributes an *ex ante/ex post* analytical approach that treats budgets as sequential institutional processes. The indicators employed—execution gap, execution ratio, and priority drift—are designed as descriptive tools to reveal effective prioritisation under constraint. This framework may be applied in other contexts to explore how budgetary governance structures the allocation of scarce resources.

These findings have implications for the analysis of public financial management reforms. Reform agendas centred on procedural improvements often assume that social priorities are defined at the design stage but undermined during execution. The evidence presented here suggests that, when budgetary hierarchies are institutionally embedded, such reforms may contribute to stabilising existing allocation patterns rather than transforming them. This highlights the importance of integrating the political and institutional dimensions of budgeting into reform analysis.

The study also has clear limitations. It focuses on a single country and excludes certain external financing flows in order to isolate budgetary arbitrations directly controlled by the state. While these choices limit statistical generalisation, they strengthen analytical consistency. Future research could extend this approach to comparative settings, incorporate externally financed expenditures, and further develop the empirical operationalisation of institutional prioritisation.

Taken together, the article contributes to a governance-oriented understanding of budgetary processes in fragile contexts, suggesting that formally disciplined budgets may coexist with persistent social fragility when institutional prioritisation is structured around the imperatives of state continuity.

Supplementary Appendix A – Data and Methods

A1. Data Sources

The empirical analysis relies exclusively on **official national budgetary sources**, ensuring full consistency between budgetary design (ex ante) and budgetary execution (ex post).

Two original databases were constructed.

Database 1 – Budgetary Execution (ex post)

This database is built from **quarterly and annual budget execution reports** published by the *Direction Générale du Budget (DGB), Ministry of Economy and Finance, Republic of Mali*.

It covers the period **2019–2024**, with quasi-complete quarterly coverage (T1–T4).

- Unit of observation: *Year × Quarter × Budgetary Function × Economic Nature*
- Core variable: **Liquidated expenditures** (crédits liquidés)
- Frequency: Quarterly
- Monetary unit: Billion CFA francs

Database 2 – Budgetary Design (ex ante)

This database is constructed from **initial and supplementary finance laws** (lois de finances initiales et rectificatives) covering the period **2019–2025**.

- Unit of observation: *Year × Budgetary Function × Economic Nature*
- Core variable: **Voted payment appropriations** (crédits de paiement votés)
- Frequency: Annual
- Monetary unit: Billion CFA francs

Both databases are built on a **constant perimeter** and harmonised nomenclatures, allowing for a direct and unambiguous joint analysis.

A2. Analytical Perimeter and Harmonisation

The analysis focuses exclusively on the **central government budget**. The following components are explicitly excluded:

- **Special Treasury Accounts (Comptes spéciaux du Trésor)**
- **Externally financed investment budget (BSI sur financement extérieur)**

These exclusions are justified by the objective of isolating **budgetary arbitrations directly controlled by the state**, thereby avoiding distortions introduced by earmarked or externally managed funds.

All amounts are harmonised across years and expressed in **constant accounting units**, without interpolation or imputation.

A3. Treatment of Supplementary Finance Laws

Supplementary finance laws are treated as **distinct observations** within the ex ante database. No retroactive reconstruction of initial appropriations is performed.

This choice allows the analysis to capture **explicit ex ante adjustments** at the design stage and to distinguish them from reallocations occurring during execution.

A4. Justification for Using Liquidated Expenditures

The choice of **liquidated expenditures** as the core execution variable is institutionally motivated.

In fragile states, commitments and authorisations often remain weakly correlated with effective disbursement capacity. Liquidation reflects the **final payment decision**, revealing which expenditures are effectively protected when liquidity constraints become binding. As such, it constitutes a more robust proxy for **effective institutional prioritisation** than commitments or forecasts.

Supplementary Appendix B – Tables

Table B1. Data Sources, Coverage, and Structure

| Dimension | Ex post (Execution) | Ex ante (Design) |
|-----------|--------------------------------------|--------------------------------------|
| Period | 2019–2024 | 2019–2025 |
| Frequency | Quarterly | Annual |
| Source | Budget execution reports (DGB, Mali) | Initial & supplementary finance laws |

| Dimension | Ex post (Execution) | Ex ante (Design) |
|---------------------|------------------------------------|------------------------------|
| Unit of observation | Year × Quarter × Function × Nature | Year × Function × Nature |
| Core variable | Liquidated expenditures | Voted payment appropriations |
| Budgetary perimeter | Central government budget | Central government budget |
| Exclusions | CST, externally financed BSI | CST, externally financed BSI |
| Monetary unit | Billion CFA francs | Billion CFA francs |

Source: Author, 2026

Table B2. Correspondence between Official Budgetary Functions and RFL Blocks

| Official budgetary function | Code | RFL block |
|------------------------------------|--------|-------------|
| Health and social development | SANTE | VITAL |
| Education (all levels) | EDUC | VITAL |
| Water, energy, basic services | EAU_EN | VITAL |
| Agriculture and food security | AGRI | VITAL |
| Social protection and solidarity | SOC | VITAL |
| National defence | DEF | SOVEREIGNTY |
| Internal security and public order | SEC | SOVEREIGNTY |
| Justice | JUST | SOVEREIGNTY |
| Foreign affairs and cooperation | EXT | SOVEREIGNTY |
| General state administration | ADMIN | ADMIN |

| Official budgetary function | Code | RFL block |
|---|---------|-----------|
| Political and constitutional institutions | INST | ADMIN |
| Common state charges | CH_COMM | ADMIN |
| Debt service (interest and principal) | DETTE | ADMIN |
| Productive economic sectors (non-vital) | PROD | ADMIN |
| Residual non-vital functions | AUTRES | ADMIN |

The correspondence is defined **ex ante** and remains constant over the entire period to ensure comparability and prevent opportunistic reclassification.

Table B3. Analytical Variables and Formulas

| Indicator | Notation | Definition |
|-----------------------|--------------------|---|
| Executed expenditures | CP ^{exec} | Liquidated payment appropriations |
| Voted expenditures | CP ^{vote} | Voted payment appropriations |
| Execution gap | EG ^b | CP ^{bexec} – CP ^{bvote} |
| Execution ratio | ER ^b | CP ^{bexec} / CP ^{bvote} |
| Priority drift | PD ^b | s ^{bexec} – s ^{bvote} |

Synthetic indices (budget rigidity, protection of vital functions, investment vulnerability) are constructed exclusively for **descriptive purposes**.

Table B3bis. Analytical Variables and Calculation Formulas

| Indicator / Variable | Notation | Definition | Formula |
|-----------------------|--------------------|-----------------------------------|---------------|
| Executed expenditures | CP ^{exec} | Liquidated payment appropriations | Observed data |

| | | | |
|----------------------------------|-------------|---|---|
| Voted expenditures | CP^{vote} | Payment appropriations voted in finance laws | Observed data |
| Executed share of block b | s^{bexec} | Share of block b in total executed expenditures | $s^{bexec} = CP^{bexec} / \sum^b CP^{bexec}$ |
| Voted share of block b | s^{bvote} | Share of block b in total voted expenditures | $s^{bvote} = CP^{bvote} / \sum^b CP^{bvote}$ |
| Execution gap | EG^b | Difference between executed and voted expenditures for block b | $EG^b = CP^{bexec} - CP^{bvote}$ |
| Execution ratio | ER^b | Relative execution rate of block b | $ER^b = CP^{bexec} / CP^{bvote}$ |
| Priority drift | PD^b | Change in the relative priority of block b between design and execution | $PD^b = s^{bexec} - s^{bvote}$ |
| Budget rigidity index | IR | Share of weakly adjustable expenditures in total execution | $IR = (CP_PER + CP_DEBT + CP_COMMON) / \sum CP^{exec}$ |
| Vital functions protection index | IPV | Share of VITAL functions in executed expenditures | $IPV = CP_VITAL^{exec} / \sum CP^{exec}$ |
| Investment vulnerability index | IVI | Degree of investment compression in execution | $IVI = 1 - (CP_INV^{exec} / \sum CP^{exec})$ |

Source: Author's calculations

Note for reviewers

All indicators and indices reported in this table are descriptive analytical devices. They are not intended to measure normative performance, but to reveal institutional prioritisation patterns across the budgetary cycle.

Table B4. Relative Shares of RFL Blocks by Sub-period (Table D1)

| Sub-period | VITAL (%) | SOVEREIGNTY (%) | ADMIN (%) |
|-----------------------------|-----------|-----------------|-----------|
| 2019 (pre-shocks) | 35.5 | 18.2 | 46.3 |
| 2020–2021 (multiple shocks) | 32.9 | 19.2 | 47.9 |
| 2022–2023 (transition) | 30.8 | 21.0 | 48.2 |
| 2024 (post-adjustment) | 28.4 | 23.5 | 48.1 |

Table B5. Robustness Check – Indices Excluding Incomplete Years (Table D2)

| Index | Full period | Restricted period | Difference |
|--------------------------------|-------------|-------------------|------------|
| Budget rigidity index | 0.66 | 0.65 | −0.01 |
| Vital protection index | 0.31 | 0.32 | +0.01 |
| Investment vulnerability index | 0.74 | 0.73 | −0.01 |

Supplementary Appendix C – Robustness Checks

C1. Sub-period Analysis

All indicators were recalculated for sub-periods defined by macro-institutional context and data availability. In all cases, the **relative ordering of RFL blocks remains unchanged**, confirming the structural nature of the observed hierarchies.

C2. Perimeter Sensitivity

Exploratory calculations including selected off-budget items (when available) were conducted as a sensitivity check. These inclusions did not alter the relative hierarchy between VITAL, SOVEREIGNTY, and ADMIN blocks.

C3. Coverage Robustness

Years with incomplete quarterly coverage were excluded and all indicators recalculated. Differences relative to the full sample are marginal and do not affect trends or rankings.

Supplementary Appendix D – Conceptual Framework

D1. The Resilience Finance Law (RFL) Framework

The RFL is used as a **purely analytical classification device**. It reinterprets official budgetary categories according to their **dominant institutional function**, without introducing causal assumptions or normative prescriptions. The framework distinguishes:

- **VITAL**: functions underpinning social survival and minimal state legitimacy
- **SOVEREIGNTY**: functions ensuring coercive capacity and territorial control
- **ADMIN**: functions ensuring organisational continuity of the state

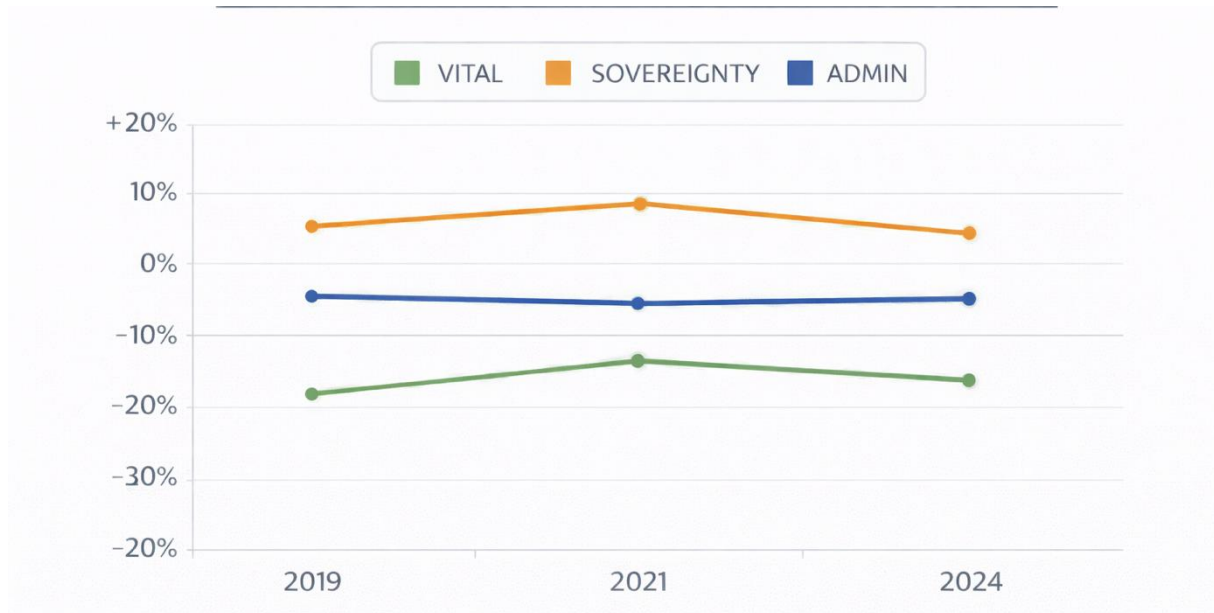
D2. Conceptual Architecture

The RFL framework articulates two analytical dimensions:

1. **Budgetary stage:**
 - Design (ex ante)
 - Execution (ex post)
2. **Institutional function:**
 - VITAL / SOVEREIGNTY / ADMIN

This articulation allows the identification of **effective institutional prioritisation** across the fiscal cycle.

Figure 3. Budgetary Priority Drift (Executed – Voted)



Source: Author, 2026

References (APA 7th edition)

Alesina, A., & Perotti, R. (1996). Budget deficits and budget institutions. *European Economic Review*, 40(3–5), 401–407. [https://doi.org/10.1016/0014-2921\(95\)00072-4](https://doi.org/10.1016/0014-2921(95)00072-4)

Allen, R., Hemming, R., & Potter, B. H. (Eds.). (2019). *The international handbook of public financial management*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-92426-6>

Andrews, M. (2015). *The limits of institutional reform in development: Changing rules for realistic solutions*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139060974>

Andrews, M., Pritchett, L., & Woolcock, M. (2017). *Building state capability: Evidence, analysis, action*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198792449.001.0001>

Besley, T., & Persson, T. (2011). *Pillars of prosperity: The political economics of development clusters*. Princeton University Press.

Bräutigam, D. (2008). Introduction: The tax–state–development nexus in Africa. In D. Bräutigam, O.-H. Fjeldstad, & M. Moore (Eds.), *Taxation and state-building in developing countries: Capacity and consent* (pp. 1–33). Cambridge University Press.

Bräutigam, D., Fjeldstad, O.-H., & Moore, M. (Eds.). (2008). *Taxation and state-building in developing countries: Capacity and consent*. Cambridge University Press.

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511808678>

Sissoko, É. F. (2025). *Effondrement par résilience contrariée : Instabilité politique, capital humain et croissance économique au Mali et dans le Sahel*. *Revue Belge*, 11(129), 88–139.

Sissoko, É. F., Traoré, M. L., & Tangara, T. (2025). Effondrement silencieux et vulnérabilité structurelle au Mali (1990–2024) : Analyse économétrique et discursive des liens entre chômage, désétatisation et pauvreté durable. *Revue Internationale de la Recherche Scientifique (Revue-IRS)*, 3(5), 5204–5229. <https://doi.org/10.5281/zenodo.17249558>

Sissoko, E. F. (2025). Insécurité, sanctions économiques et défis budgétaires au Mali: Quelles stratégies pour une croissance économique soutenable (1991–2025) ?. *Revue Française d'Economie Et De Gestion*, 6(6). Consulté à l'adresse <https://www.revuefreg.fr/index.php/home/article/view/2167>

Sissoko, E. F. ., GUINDO, L. ., KONE, M. ., & TRAORE, A. L. . (2024). Sécurité ou développement? : Un dilemme budgétaire dans le contexte des élections de 2024 et de la pression internationale. *Revue Française d'Economie Et De Gestion*, 5(1). Consulté à l'adresse <https://www.revuefreg.fr/index.php/home/article/view/1441>

Sissoko, E.F. et Dembélé, K. 2026. Concevoir la loi de finances en contexte de fragilité : Une analyse institutionnelle comparative des États sahéliens. *Revue Française d'Economie et de Gestion*. 7, 2 (févr. 2026). DOI: 10.5281/zenodo.18619750

Sissoko, E.F. et Dembélé, K. 2026. Réingénierie de la loi de finances en contextes de fragilité étatique : Vers un cadre de « loi de finances résiliente » Le projet de loi de finances 2026 du Mali comme cas-laboratoire analytique. *Revue Française d'Economie et de Gestion*. 7, 2 (févr. 2026).

Institutional References and Primary Sources

Direction Générale du Budget (DGB). (2019–2025). *Lois de finances initiales et lois de finances rectificatives*. Ministry of Economy and Finance, Republic of Mali.

Direction Générale du Budget (DGB). (2019–2025). *Quarterly and annual budget execution reports*. Ministry of Economy and Finance, Republic of Mali.

Republic of Mali. (2013). *Law No. 2013-028 of 11 July 2013 relating to finance laws*. Official Gazette of the Republic of Mali.

Republic of Mali. (2013). *Law No. 2013-031 of 23 July 2013 on the code of transparency in public financial management*. Official Gazette of the Republic of Mali.