“Post-debt relief governance and debt sustainability in Somalia: A systematic review and debt sustainability analysis”

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POST-DEBT RELIEF GOVERNANCE AND DEBT SUSTAINABILITY IN SOMALIA: A SYSTEMATIC REVIEW AND DEBT SUSTAINABILITY ANALYSIS

Abstract

This study examines Somalia's post-debt relief governance and debt sustainability to identify the institutional and fiscal reforms needed to preserve debt sustainability in fragile states. This study adopts a mixed-methods approach that combines a qualitative systematic literature review with a debt sustainability analysis by using the IMF-World Bank Low Income Country Debt Sustainability Framework (LIC DSF). Somalia's debt position improved markedly after HIPC relief: external debt declined from 64 % of GDP in 2018 to 6.4 % in 2023 and is projected to remain below 6 % of GDP during 2024-2028. In the baseline scenario, the present value of external debt averages about 5 % of GDP, well below the 30 percent threshold for countries with weak debt-carrying capacity. Debt service indicators also remain low, with debt service-to-exports below 1.2 % and debt service-to-revenue below 4.5 % through 2028. Standardized stress tests, by contrast, push debt service above its indicative ceilings, which supports a moderate rather than a low-risk rating. Yet many peer countries in Sub-Saharan Africa still face precarious debt positions, with numerous low-income nations at high risk or already in debt distress. Sustaining this outlook will depend on continued governance reforms, fiscal discipline, and transparent borrowing that strengthen institutional capacity and resilience to future shocks.

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INTRODUCTION

In recent years, effective debt management has become a cornerstone of economic stability and sustainable developing economies, especially in fragile and post-conflict states. As global policymakers increasingly focus on debt dynamics, countries emerging from debt relief programs, such as the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI), face a key post-relief challenge: how to balance new borrowing while avoiding a return to debt distress and simultaneously rebuilding institutions and public trust (Cassimon et al., 2015). In the absence of sound governance, the progress achieved through debt relief can quickly fade, undermining growth, weakening public services, and hindering poverty reduction efforts (Alvarez-Plata & Bruck, 2008).

Historically, most low-income economies reached the HIPC Completion Point before 2011, yet, a decade on, many remain at high risk of reverting to debt distress, highlighting the ongoing challenges of securing long-term debt sustainability in the post-HIPC era. The

African context is particularly complex: the 39 countries that benefited from HIPC relief, 33 continue to face significant fiscal pressures; Table A1 in Appendix A reports the current risk rating and completion year for each (Abubakar et al., 2025). Ghana offers a telling example, even with oil-backed stabilization measures and the implementation of sinking funds, fiscal gaps persist and key sectors remain chronically underfunded (Ackah et al., 2020).

For many developing economies, the benefits of debt relief have often been constrained by limited institutional capacity and unpredictable revenue streams. In some cases, strict fiscal rules imposed by creditors have paradoxically undermined the very sustainability they are intended to support (Abubakar et al., 2025). Additional obstacles, such as capital flight, unsolicited credit ratings, and the lack of governance-focused assessments, further complicate efforts to consolidate post-HIPC achievements (Agyeman et al., 2022; Freytag & Pehnelt, 2009). Despite substantial debt cancellations under the HIPC and MDRI programs, many economies have experienced renewed debt vulnerabilities in the years following such relief. Although post-HIPC debt ratios dropped significantly at first, a combination of fiscal pressures, limited economic diversification, governance weaknesses, and new borrowing has led to the re-accumulation of debt in numerous cases. As of September 2025, most post-HIPC economies were classified at high risk (5) or already in debt distress (14) out of 35 low-income countries (LICs) (IMF, 2025b).

A key factor has been weak fiscal management capacity after the relief. While HIPC relief was conditional on preparing poverty reduction strategy papers, strengthening public financial management, and implementing institutional reforms, maintaining fiscal discipline proved difficult for many countries. The fiscal space created by debt cancellation sometimes led to relaxed controls, with governments increasing spending or taking on new loans in the expectation that economic growth or future relief would offset the costs. Indeed, debt service burdens in LICs have been rising again since the mid-2010s (IMF, 2018, 2020, 2025a). Debt management under new creditors and instruments has presented another challenge. Many post-HIPC economies without robust debt strategies borrowed on less favorable terms than the concessional loans they had previously relied on, resulting in faster accumulation of external debt with higher interest rates or shorter maturities. This combination quickly undermined debt sustainability and exposed these countries to renewed financial risk.

At the end of 2023, Somalia reached a historic milestone by attaining the HIPC Completion Point, becoming the 37th country to do so. This achievement reduced its external debt from 64% of the gross domestic product (GDP) in 2018 to just 6.4% of the GDP, saving an estimated USD 4.5 billion in debt service obligations (IMF, 2024). This milestone not only represents significant debt relief but also meaningful progress toward macroeconomic stability and structural reform after decades of conflict and institutional collapse. However, debt relief only marks a transitional phase. The post-HIPC era emphasizes the importance of debt sustainability, fiscal discipline, domestic resource mobilization, and the institutional capacity to maintain access to concessional financing. Somalia's experience highlights both the potential and the challenges of post-HIPC recovery. Like many fragile states, Somalia continues to face a difficult post-relief landscape, characterized by weak governance, heavy dependence on foreign aid, a low domestic revenue-to-GDP ratio of just 3% (Roble & Ibrahim, 2024), exposure to climate shocks, and rising insecurity, all of which significantly constrain its economic prospects.

This study pairs a systematic review of post-HIPC fiscal strategies and debt governance across Sub-Saharan Africa with a debt sustainability analysis of Somalia under the World Bank and IMF LIC framework and so addresses a gap that neither method closes alone. Somalia's post-HIPC debt trajectory has been largely understudied, with only a few generalist papers (Ali & Jama, 2025; Nor, 2024; Omar & Ibrahim, 2021) exploring the determinants of external debt and post-HIPC public policy and sentiment.

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1. LITERATURE REVIEW

The evolving architecture of global development finance has brought renewed attention to the complex interplay between public debt, economic growth, and governance, particularly in fragile and post-HIPC contexts. In these settings, debt is not merely a fiscal tool but a structural force that shapes development trajectories, institutional resilience, and the scope for long-term planning. The literature increasingly reflects this complexity, highlighting that the effects of debt are highly contingent on institutional quality, debt composition, and the broader macroeconomic environment.

Across the 75 included studies, three themes recur: debt dynamics and fiscal vulnerability (31 studies), governance and policy frameworks for fiscal resilience (26 studies), and the effectiveness of HIPC relief and aid (18 studies). Coverage is concentrated in Sub-Saharan Africa, with Ghana, Nigeria, Uganda, Tanzania, and Zambia the most frequently studied cases, alongside cross-country panels spanning 49 to 115 economies. Methods divide between econometric panel and threshold models (roughly two in five studies) and qualitative or political economy analyses (the remainder); a split that itself shapes findings.

Empirical evidence from the enhanced HIPC Initiative indicates that the program increased public investment by 3.14% after completion, especially for countries with limited access to capital markets (Djimeu, 2018). Similarly, well-designed national strategies that align financing, institutional capacity, and long-term development goals have been instrumental in promoting sustainable growth (Chimhowu et al., 2019). Conversely, failure to effectively manage post-relief debt can produce profound social, economic, environmental, and political consequences. In Tanzania, for example, civil-society oversight of debt often supported externally imposed reforms, while overlooking local poverty concerns (Mercer, 2003). Uganda, frequently cited as a post-HIPC success story, also illustrates the limits of aid dependence: persistent trade deficits and policies shaped by external priorities often took precedence over national circumstances (Belshaw et al., 1999; Craig & Porter, 2003). The sustainability of debt-financed development is further undermined by illicit financial flows. Ndikumana (2004) found that for every dollar borrowed by Sub-Saharan African countries, roughly 80 cents exited the region as capital flight, creating a debt-fueled cycle of financial leakage that not only erodes the developmental impact of borrowing but also exposes underlying governance weaknesses often overlooked in creditor assessments. The rise of non-traditional creditors, particularly China, has added another layer of complexity to the debt landscape. Horn et al. (2021) noted that China has become the world's largest official creditor, with nearly half of its loans to developing countries omitted from standard debt statistics. While this shift has provided recipient countries with greater bargaining power (Kilama, 2016; Humphrey & Michaelowa, 2019), it has also heightened concerns about transparency, debt sustainability, and the long-term implications of opaque lending practices.

Empirical studies have shown that the relationship between debt and growth is far from linear. For instance, Doğan and Bilgili (2014), using a Markov regime-switching model for Turkey, found that while both public and private debt influence growth, public borrowing tends to have a more negative impact. Gómez-Puig et al. (2022) extended this analysis across 115 countries, identifying five distinct debt-growth regimes. Their findings suggest that the adverse effects of debt are amplified by weak institutions and short debt maturities, while productive spending and institutional strength can mitigate these risks. These concerns are closely linked to broader governance challenges. Corruption remains a persistent obstacle to effective debt management and public investment. Brown and Cloke (2005) critiqued the depoliticized framing of anti-corruption efforts by international financial institutions, arguing that such approaches often ignore the historical and political-economic roots of corruption. Auriol and Blanc (2009) found that public utilities in Sub-Saharan Africa are frequently captured by elites, undermining the social benefits of privatization. Similarly, Bakre et al. (2022) examined Nigeria's debt through a postcolonial lens, viewing international public sector accounting standards (IPSAS) as tools of economic control that reinforce dependency rather than promote autonomy.

Natural resource revenues and foreign aid flows introduce additional layers of complexity. Frynas

and Buur (2020) coined the term "pre-source curse" to describe how mere expectations of future resource wealth can distort economic and political behavior. Buffie et al. (2008) recommended a managed float to mitigate inflationary pressures from aid surges, while Gyeyir (2019) found that Ghana's stabilization fund was largely used for debt servicing rather than economic stabilization. Ackah et al. (2020) similarly concluded that oil revenues in Ghana have not anchored fiscal discipline and may crowd out other revenue sources. These findings resonate with critiques of structural adjustment programs. Easterly (2005) found that repeated IMF and World Bank adjustment loans failed to deliver sustained growth or correct policy distortions, while Nissanke (2019) argued that the narrow focus on macroeconomic stability has hindered structural transformation in Africa.

The post-HIPC era has also seen a shift in donor behavior. Marchesi and Missale (2013) found that concerns over debt sustainability have led donors to reduce net loans and increase grants to highly indebted countries. While this shift may support fiscal sustainability, it also raises questions about donor selectivity and the long-term viability of aid-dependent development. Powell and Bird (2010) provided further evidence that debt relief and aid flows are complementary, with countries receiving debt relief also experiencing increased net aid flows, particularly after 2000. However, Kamara et al. (2008) highlighted the limitations of aid in ensuring program sustainability, noting persistent funding gaps in health initiatives across 50 low-income countries despite targeted strategies for resource mobilization. The broader literature on aid effectiveness offers mixed insights. Collier (2006) argued that well-structured aid can outperform natural resource revenues in promoting development, especially in post-HIPC settings. However, Mogues and Benin (2012) found that aid can paradoxically weaken local fiscal autonomy, while Manzo (2003) critiqued rights-based and civil society-led governance reforms for reinforcing rather than transforming adjustment frameworks.

Although the literature on debt relief and public debt sustainability in low-income countries is extensive, little attention has been given to how post-debt relief governance reforms shape long-term debt sustainability in fragile and conflict-affected states. Existing studies largely focus on the macroeconomic effects of debt relief or the relationship between debt and growth, with limited analysis of the institutional and fiscal mechanisms required to preserve debt sustainability after HIPC completion. In Somalia's case, despite its attainment of the HIPC Completion Point in 2023, no study has combined a systematic review of post-HIPC experiences in Sub-Saharan Africa with a formal debt sustainability assessment grounded in the IMF-World Bank framework. This study addresses this gap by examining Somalia's post-debt relief governance and debt sustainability. Specifically, it combines a systematic review of 75 peer-reviewed studies on post-HIPC experiences in Sub-Saharan Africa with a debt sustainability analysis based on the 2025 IMF–World Bank Low-Income Country Debt Sustainability Framework to identify the institutional and fiscal reforms needed to preserve debt sustainability in fragile states.

1.1. Somalia's road to debt relief: Context and reforms (2013–2023)

Somalia's attainment of the HIPC Initiative Completion Point in December 2023 marked the culmination of a decade-long effort to rebuild a conflict-affected economy and restore debt sustainability. Following more than two decades of state collapse and isolation from international financial institutions, Somalia re-engaged with the IMF in 2013 and embarked on an ambitious reform agenda under IMF staff-monitored programs (SMPs) and the Extended Credit Facility arrangement (IMF, 2013). The debt relief process unfolded between 2013 and 2023, making Somalia one of the longest-running participants in the HIPC process. Over this period, the country cut its external debt burden by approximately USD 4.5 billion, restoring debt sustainability and reopening access to concessional financing (IMF, 2023). Figure 1 traces this trajectory, plotting Somalia's external debt-to-GDP ratio before and after HIPC relief.

In 2013, decades of conflict had left the FGS barely functional. Government ministries operated out of war-damaged buildings, staffed by only a small number of personnel with limited capacity and unclear mandates. Nearly all laws in force dated

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Source: IMF (2020, 2023, 2024).

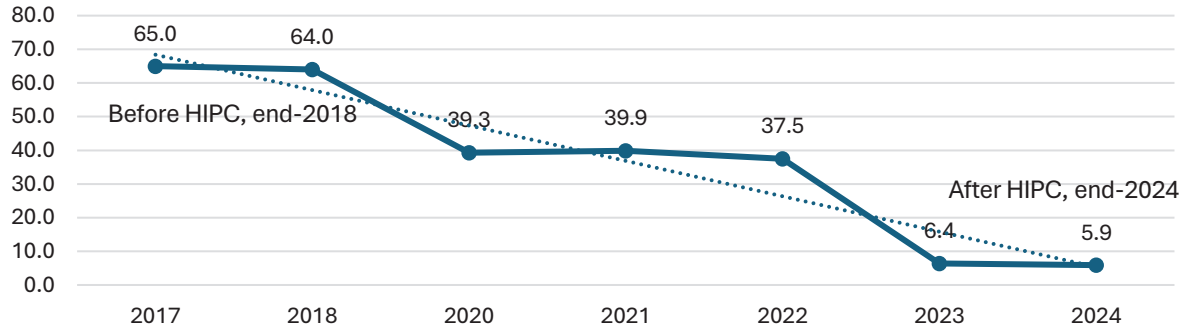

Figure 1. Somalia's external debt-to-GDP ratio before and after debt relief

back to the 1960s and 1970s, and core public financial management functions, such as budget execution, accounting, and record-keeping, were either non-existent or conducted manually, greatly increasing the risk or errors and misuse. The collapse of the banking system further compounded these challenges, forcing all government transactions, including salary payments, to be conducted in cash. In this regard, ministries routinely transported large amounts of physical currency in the absence of functioning banking channels. Somalia's journey through the HIPC process followed a series of sequential milestones under IMF-monitored programs and the HIPC framework (Figure 2) (Ministry of Finance Somalia, 2024b). After re-engaging with the international community in 2013, Somalia was unable to access financing from the IMF or other international financial institutions due to longstanding arrears. As a result, it first undertook SMPs to establish a credible policy track record.

Somalia formally launched the SMPs in 2016, and between 2016 and 2019, the FGS successfully completed four consecutive programs. These efforts signaled meaningful improvements in institutional capacity and reform implementation, including strengthened budget processes, and enhanced revenue mobilization. During this period, FGS domestic revenue more than tripled, from roughly USD 69 million in 2013 (1.2% of the GDP) to USD 211 million in 2020. Building on this progress, Somalia reached the HIPC Decision Point in March 2020 after successfully implementing the SMPs and adopting a National Development Plan as its poverty reduction strategy (Ministry of Finance Somalia, 2024b). Reform momentum slowed in 2021 as relations between the FGS and FMS alternated between cooperation and discord, particularly over disputes related to revenue sharing and the electoral process, which weakened policy coordination.

At the end of 2023, Somalia had met the vast majority of the HIPC Completion Point conditions. A central requirement was the maintenance of mac-

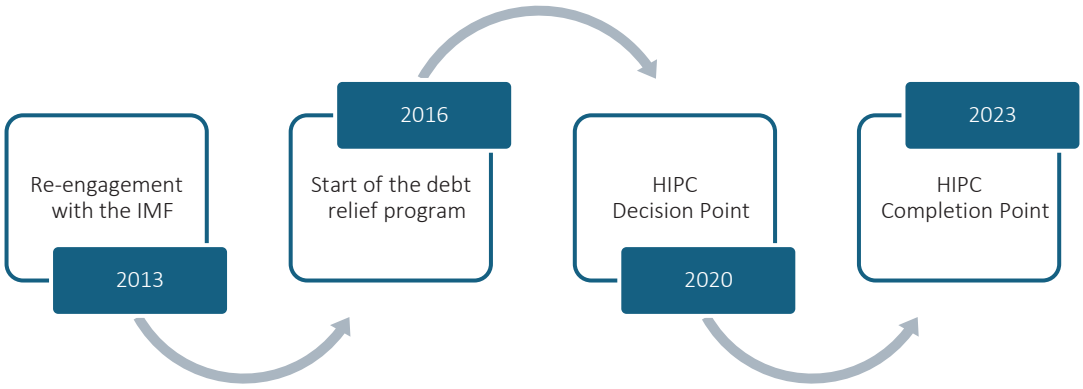

Figure 2. Debt relief pathway from IMF re-engagement to HIPC completion

roeconomic stability throughout the program period. In addition, the FGS implemented a set of floating completion points encompassing 14 structural benchmarks across public financial management, domestic revenue mobilization, governance, social services, and statistical capacity. Somalia satisfied 13 of the 14 completion point conditions, except for the adoption of a unified import tariff schedule across all major national ports, a reform intended to harmonize trade taxation across the FMS.

2. METHOD

This study adopts a mixed-methods approach that combines a qualitative systematic literature review with a debt sustainability analysis by using the IMF–World Bank Low-Income Country Debt Sustainability Framework (LIC DSF). Public debt governance in post-HIPC countries is examined through a systematic review conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework. This research design emphasizes qualitative evidence synthesis, tailored to the institutional and fiscal dynamics of fragile and conflict-affected states. To ensure methodological rigor and consistency, this study follows the analytical boundaries and selection criteria outlined by Lu et al. (2022) and Alhossini et al. (2020), particularly in the identification, categorization, and evaluation of relevant literature.

The analysis proceeds in three steps.

1) Literature identification and screening. Relevant studies on debt relief, fiscal governance, and post-HIPC experiences were retrieved from Scopus and Web of Science.

2) Evidence synthesis. The selected studies were reviewed to extract common findings on debt dynamics, institutional quality, and fiscal resilience.

3) Debt sustainability assessment. Somalia's debt indicators were evaluated using the IMF–World Bank LIC DSF.

The LIC DSF is applied to assess Somalia's debt-carrying capacity and overall debt sustainability. It also evaluates the sensitivity of key debt indicators to changes in economic conditions, especially GDP growth, relative to internationally defined thresholds. Core indicators include the present value (PV) of external debt-to-GDP, the PV of debt-to-exports, debt service-to-exports, and debt service-to-revenue ratios. These indicators serve as the primary benchmarks for evaluating debt sustainability under the IMF–World Bank framework, drawing on the most recent debt sustainability analysis for Somalia jointly published by the IMF and the World Bank (World Bank & IMF, 2025). The analysis uses data for 2018–2028. Historical observations capture the pre- and post-HIPC periods, while forward-looking projections are taken directly from the baseline and standardized stress-test scenarios in the LIC DSF. Debt sustainability is assessed by comparing projected debt ratios with thresholds. Fiscal space is inferred from the gap between each projected indicator and its threshold:

$$Fiscal\ Space_{it} = Threshold_{i} - Indicator_{it}, \quad (1)$$

where $Indicator_{it}$ denotes debt indicator i in year t.

Table 1 reports the LIC-DSF thresholds and benchmarks for public and publicly guaranteed external debt across weak, medium, and strong debt-carrying capacity, against which Somalia's indicators are assessed.

Table 1. Global thresholds and benchmarks for public and publicly guaranteed (PPG) external debt

Source: The World Bank (n.d.).

Debt Indicator	Weak Capacity	Medium Capacity	Strong Capacity
PV of External Debt-to-GDP (%)	30	40	55
PV of Debt-to-Exports (%)	140	180	240
Debt Service-to-Exports (%)	10	15	21
Debt Service-to-Revenue (%)	14	18	23
Debt-Carrying Capacity	2.69	> 2.69 < 3.05	> 3.05

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2.1. Systematic literature review

For the systematic literature review, this study applied a four-stage PRISMA process. Identification retrieved 710 records (Scopus, 400; Web of Science, 310). Screening at the title and abstract level removed 310 records (duplicates, 60; non-English, 43; pre-1999, 38; non-peer-reviewed, 79; off-topic, 90), leaving 400 records. The inclusion criteria were peer-reviewed empirical or policy studies, published in English between 1999 and 2024, that examined public debt, debt relief, fiscal governance, aid effectiveness, or post-HIPC experience in Sub-Saharan Africa or comparable low-income settings; the exclusion criteria removed purely theoretical contributions, micro-level studies without macro-fiscal relevance, and editorials or commentaries. Applying these criteria to the 400 records, 250 were excluded at second-stage screening because their focus fell outside public debt governance or post-HIPC fiscal dynamics, leaving 150 reports assessed in full text for eligibility. At the full-text stage, a further 75 were excluded (theoretical or modeling papers without empirical fiscal content, 41; micro-level or sectoral studies, 22; insufficient methodological detail, 12), yielding 75 studies for synthesis. A reproducible coding protocol recorded, for each study, the country or country group, time period, method, debt or governance theme, and principal finding; two passes were conducted to check consistency. A systematic quality appraisal was conducted by using the framework proposed by Alhossini et al. (2020), with emphasis on qualitative rigor, empirical depth, and broader relevance. Of the 75 articles reviewed, 40 were rated as high quality, reflecting strong methodological design and a clear focus on post-HIPC debt governance or debt dynamics in fragile contexts. The remaining 35 articles were classified as moderate quality. While they met minimum scholarly standards, they exhibited limitations in methodological clarity or analytical depth. This screening and appraisal process ensured the reliability and scholarly integrity of the evidence and confirmed full compliance with PRISMA guidelines (Moher et al., 2009). Table A2 in Appendix A lists all 75 included studies with country coverage, time period, method, thematic code, and quality rating. Figure 3 summarizes this four-stage article selection process.

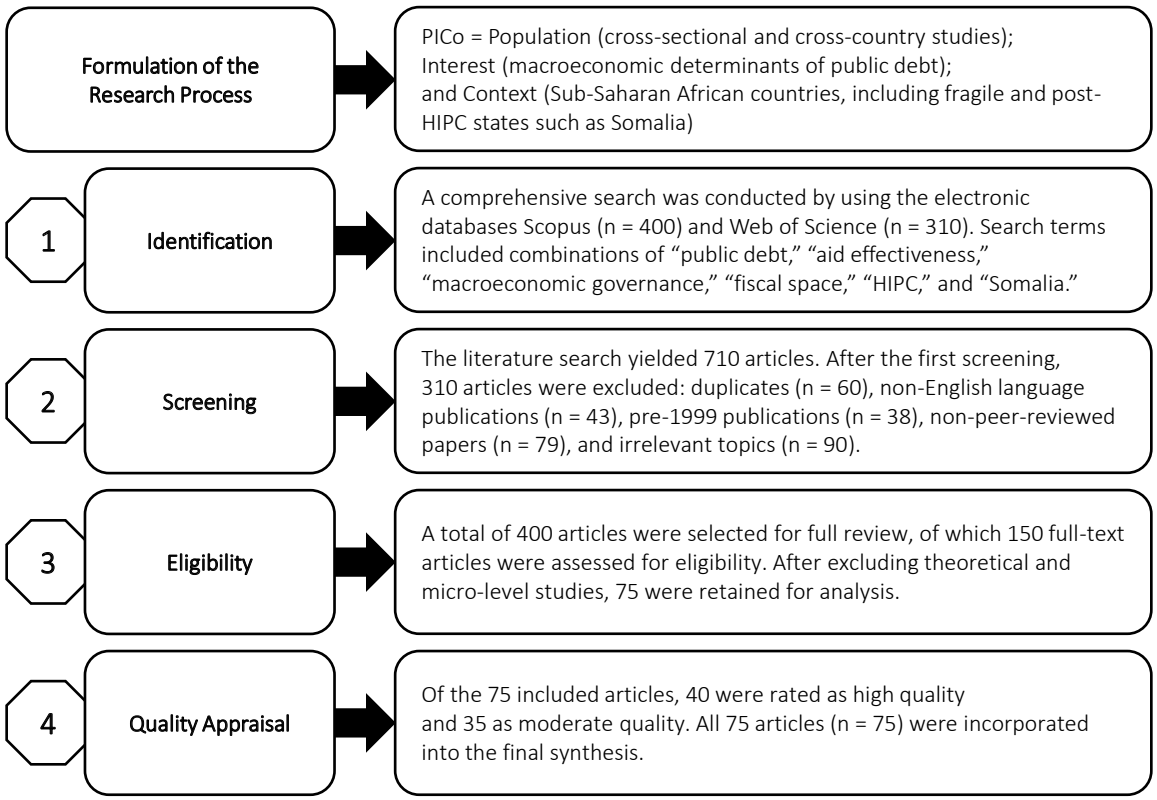

Figure 3. Article review process

3. RESULTS

3.1. Systematic review findings

The systematic literature review highlighted three interrelated themes: emerging debt dynamics and fiscal vulnerabilities; governance and policy frameworks for fiscal resilience; and the effectiveness of HIPC and aid in Sub-Saharan Africa. Regarding emerging debt dynamics and fiscal vulnerabilities, the literature identified a debt-to-GDP threshold of 52%, beyond which debt negatively affected economic growth (Law et al., 2021). Somalia was particularly exposed to risks from non-concessional borrowing from new creditors. Horn et al. (2021) emphasized that opaque bilateral agreements, especially those with China, can pose transparency risk and undermine long-term debt sustainability. Resourced-backed loans presented a mixed picture. As Coulibaly (2024) noted, while such loans can facilitate infrastructure development, overly optimistic revenue projections tend to create fiscal instability. In countries, such as Somalia, which lack robust fiscal buffers and a comprehensive debt sustainability network, these strategies can exacerbate existing debt vulnerabilities rather than alleviate them. Table 2 maps the three review themes to their samples, principal debt drivers, and main findings.

Establishing fiscal resilience in post-HIPC economies requires strong governance and policy frameworks, institutional integrity, and sustained fiscal discipline. Ackah et al. (2020) highlighted Ghana's lack of fiscal discipline, noting that development funds were largely devoted to servicing outstanding debt rather than supporting economic growth. As such, Somalia's recovery demands more than technical accounting reforms: it requires comprehensive institutional restructuring, robust capacity building, and the development of locally responsive and accountable governance systems.

Regarding the HIPC Initiative and the efficiency of aid in Sub-Saharan Africa, the empirical evidence remains inconclusive, particularly with respect to HIPC outcomes. Powell and Bird (2010) and Marchesi and Missale (2013) found that debt relief has typically complemented rather than substituted for foreign aid. In contrast, Mogues and Benin (2012) cautioned that external grants may weaken incentives for domestic revenue mobilization, as illustrated by Ghana's district-level funding scheme. In Somalia, external assistance similarly represents a double-edged sword. Collier (2006) asserted that well-targeted aid can outperform natural resource revenues in promoting development, while Jensen and Tarp (2006) noted that macroeconomic growth assessments often overlook distributional effects, suggesting that the efficacy of aid should be evaluated through an integrated micro-macro perspective. Moreover, Frynas and Buur (2020) emphasized the "resource curse," whereby anticipated inflows of resources or aid contribute to fiscal mismanagement, rising debt, and the erosion of governance quality.

Table 2. Themes plot

Theme	Sample	Key Debt Drivers	Main Findings
Emerging Debt Dynamics	115 countries, including 71 developing countries	Institutional quality, debt maturity, multilateral loans, and productive expenditure	Asset-backed market instruments can reduce debt by up to 44%. The impact of debt on growth varies with institutional strength, and debt-to-GDP ratios above 51.65% are associated with negative growth effects
Fiscal Resilience & Governance	Nigeria, Ghana, Zambia, and other Sub-Saharan African countries	Corruption, weak institutions, revenue mismanagement, and petroleum revenue volatility	Adoption of International Public Sector Accounting Standards (IPSAS) and fiscal rules alone is insufficient without political reform. External grants can undermine domestic revenue effort, while governance quality and democratic institutions can influence how natural resources impact economic growth
HIPC & Aid Effectiveness	Sub-Saharan Africa, HIPCs, and 49 other low-income countries	Aid volatility, debt forgiveness, IMF programs, capital flight, and Structural Adjustment Programs (SAPs)	Aid and debt relief often simultaneously occur, but rarely generate a causal synergy. Computable general equilibrium (CGE) models highlight growth-distribution trade-offs. Capital flight can offset the benefits of external borrowing. Structural reforms have limited long-term success. Anticipated resource revenues can create fiscal volatility and erode governance quality ("resource curse")

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3.2. Debt sustainability analysis: Baseline

With respect to debt sustainability, following the completion of the HIPC Initiative in 2023, Somalia did not contract new public debt (either external or domestic) until December 2025. As a result, public debt remained moderate during the post-relief period (Tables 3-5). Debt relief produced a substantial reduction in Somalia's public debt burden, with the external public debt-to-GDP ratio declining to below 6.0% by the end of 2023 (Ministry of Finance Somalia, 2024a), largely reflecting the cancellation and restructuring of legacy obligations.

The debt sustainability analysis confirms that Somalia's post-HIPC debt indicators remain below the IMF–World Bank thresholds for countries with weak debt-carrying capacity. Somalia's PV of external debt-to-GDP remains below 5%, well under the 30% threshold. The PV of external debt-to-exports was approximately 22.3% in 2024 and 23.9% in 2025, far below the 140% threshold. Debt service indicators are similarly modest, with debt service-to-exports at 0.2% and 0.5%, respectively, compared with the 10% threshold, while debt service-to-revenue stands at 1.4%, significantly below the 14% threshold (World Bank & IMF, 2025). These results place Somalia's debt burden indicators well within sustainable ranges and imply substantial borrowing space before the DSF debt-stock thresholds bind.

Despite this favorable baseline position, most post-HIPC economies face elevated debt vulnerabilities: among the 35 LICs, 5 are assessed at high risk of debt distress and 14 are already in debt distress. A key contributing factor is weak fiscal and debt management capacity following debt relief. Somalia's debt-carrying capacity is classified as weak, with a composite score of 1.71, placing it in the lowest quartile. This reflects low Country Policy and Institutional Assessment ratings, limited external and fiscal buffers, low-income levels, and persistent institutional fragility. More broadly, debt-carrying capacity has weakened across many LICs. Albinet et al. (2023) reported that 19 of 64

Table 3. Somalia: Coverage of the public sector

Source: World Bank and IMF (2025).

Sub-sector of the public sector	Covered
Central government	X
State and local government	
Other elements of general government	
Guarantees (to entities in the public and private sectors)	X
Central bank (borrowing on behalf of the government)	X
Non-guaranteed SOE debt	X

Table 4. Somalia: Contingent-liability parameters for the combined stress test

Source: World Bank and IMF (2025).

Contingent liability	Default (% of GDP)	Used in analysis (% of GDP)	Reason for deviation from default
Other general government not captured above	0.0	0.0	
SOE debt (guaranteed and non-guaranteed)	2.0	0.0	No guaranteed or non-guaranteed SOE debt in Somalia
Public-private partnerships (PPPs)	35.0	0.0	No PPPs exist in Somalia
Financial market (minimum default)	5.0	5.0	
Total			

Table 5. Somalia: Debt-carrying capacity classification

Source: World Bank and IMF (2025).

Debt-carrying capacity: Weak	Current vintage	Previous vintage	Two previous vintages
Classification	Weak	Weak	Weak
Composite score	1.71	1.63	1.58

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LIC-DSF countries are classified as having weak capacity, with a further 28 assessed as medium capacity.

According to the baseline and stress-test scenarios for 2024–2028, and in light of Somalia's specific context, all debt burden indicators remain comfortably below their respective thresholds. However, under severe shock scenarios, the debt service-to-revenue ratio breaches its 14% threshold, alongside the debt service-to-exports threshold of 10%. In particular, if Somalia were to experience adverse shocks (such as severe droughts or a sharp decline in exports), the standardized stress tests suggest that debt service burdens could temporarily exceed indicative ceilings once the initial grace period on new borrowing expires.

These threshold breaches under stress support the classification of Somalia as facing a moderate risk of debt distress, rather than a low risk, which would require the absence of any breaches even under adverse scenarios. Somalia's capacity to absorb large shocks remains highly constrained by structural vulnerabilities. The country continues to face persistent risks stemming from political and governance challenges, global commodity price volatility, and climate-related shocks (e.g., droughts and floods), all of which can undermine exports, growth, and fiscal revenues. Furthermore, Somalia remains highly dependent on external grant financing to support its budget. As a result, despite apparent headroom under baseline debt indicators, a major external shock or a sudden shortfall in donor support could rapidly strain the fiscal position. Hence, this debt sustainability analysis cautions against complacency and underscores the need to strengthen domestic revenue mobilization, build fiscal buffers, and reinforce debt management capacity to improve resilience to future shocks.

4. DISCUSSION

The post-HIPC experience across Sub-Saharan Africa, as illustrated by Somalia, provides critical lessons for debt governance in fragile states. A recurring theme in the literature is that debt relief alone is insufficient for ensuring long-term sustainability. As Gómez-Puig et al. (2022) demonstrated, the impact of debt on growth is heavily influenced by the quality of governance, institutional capacity, and effectiveness of public investment. Without comprehensive reform, debt relief risks only serving as a temporary reprieve rather than a foundation for resilience. Structural adjustment programs, often intended to stabilize economies, have frequently struggled to deliver lasting results due to their limited alignment with local contexts. Brown and Cloke (2005) and Auriol and Blanc (2009) argued that externally driven anti-corruption initiatives can inadvertently reinforce rent-seeking behaviors when they fail to consider historical and political realities. Similarly, the governance of aid and resource revenues requires strong institutional frameworks to avoid creating adverse incentives. In related research, Frynas and Buur (2020) and Gyeyir (2019) showed that poorly managed expectations around resource inflows can exacerbate fiscal instability and erode governance quality.

These patterns carry three implications for Somalia that the baseline indicators alone do not

Table 6. Sensitivity of debt sustainability indicators to GDP changes, 2024-2028 (% of the GDP, unless otherwise indicated; GDP assumptions based on the current LIC-DSA)

Source: World Bank and IMF (2025).

Sustainability Indicators		2024	2025	2026	2027	2028
PV of PPG external debt-to-GDP (%)		4.6	4.9	5.0	5.3	5.6
PV of PPG external debt-to-exports (%)		22.3	23.9	23.8	24.5	25.8
PPG debt service-to-exports (%)		0.2	0.5	0.7	0.9	1.2
PPG debt service-to-revenue (%)		1.4	3.1	4.2	4.1	4.5
Debt Indicator	**DSF Threshold (Weak Capacity)**	**2024**	**2025**	**2026**	**2027**	**2028**
PV of external debt-to-GDP (%)	30	4.6	4.9	5.0	5.3	5.6
PV of debt-to-exports (%)	140	22.3	23.9	23.8	24.5	25.8
Debt service-to-exports (%)	10	0.2	0.5	0.7	0.9	1.2
Debt service-to-revenue (%)	14	1.4	3.1	4.2	4.1	4.5

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reveal. First, the debt-growth relationship that shapes Somalia's medium-term outlook is neither linear nor governed by a universal ceiling. Eberhardt and Presbitero (2015) show that a common debt threshold does not hold across countries, and Reinhart and Rogoff (2010) document that the debt-growth link weakens sharply below high debt ratios, so Somalia's low present-value ratios cannot be read as a guarantee of future headroom. What matters instead is the quality of the policies and institutions that convert borrowing into productive capacity. Kraay and Nehru (2006) demonstrate that the probability of debt distress falls with institutional quality and rises with exposure to shocks, which is precisely the configuration Somalia now faces: a weak Country Policy and Institutional Assessment score paired with acute vulnerability to drought and export volatility.

Second, the composition and terms of new borrowing will determine whether the post-relief gains endure. Ferry et al. (2021) find that debt relief itself fosters renewed private borrowing while reputational discipline remains weak, and Horn et al. (2021) show that a large share of lending from non-traditional creditors escapes standard statistics. For a sovereign re-entering capital markets with thin buffers, these findings argue for a conservative borrowing rule anchored in concessionality and full disclosure rather than in the ample stock-based headroom implied by Table 6. Asonuma and Trebesch (2016) add that preemptive, cooperative debt management restores market access faster and at lower output cost than crisis-driven restructuring, which reinforces the value of building debt-management capacity before, not after, distress emerges.

Third, the systematic evidence converges on a governance precondition that technical reform cannot substitute for. Arslanalp and Henry (2005) argue that in many low-income economies the binding constraint is weak institutions rather than the debt stock, so relief alone yields limited gains; Dessy and Vencatachellum (2007) show that conditional relief raises growth-enhancing spending only when paired with credible governance commitments. Presbitero (2009) and Cordella et al. (2010) similarly find that debt depresses growth mainly where institutions are too weak to make resources productive. These results align with the Somali evidence in this review: the adoption of accounting standards and fiscal rules improved transparency but did not, on its own, resolve the political-economy constraints that drive re-accumulation. The policy priority is therefore to embed domestic revenue mobilization, public financial management, and creditor transparency in durable institutions rather than in program conditionality that lapses at completion.

Read together, the review and the debt sustainability analysis suggest that Somalia's moderate risk rating is best understood not as a transient artifact of stress-test mechanics but as a structural signal. The country enjoys wide baseline headroom, yet its capacity to absorb shocks is thin, its revenue base is narrow at roughly 3% of GDP, and its institutions remain fragile. The comparative record across Sub-Saharan Africa, where 33 of 39 HIPC beneficiaries still face fiscal pressure, indicates that this combination, rather than the debt stock itself, is what typically precipitates renewed distress. Sustaining the post-relief dividend will depend on whether Somalia can convert the fiscal space created by relief into institutional depth before the next large shock arrives.

CONCLUSION

This study examined Somalia's post-debt relief governance and debt sustainability, combining a PRISMA-based systematic review of post-HIPC experiences in Sub-Saharan Africa with an application of the IMF–World Bank Low-Income Country Debt Sustainability Framework, to identify the institutional and fiscal reforms that preserve debt sustainability in fragile states. Three findings stand out. Somalia entered the post-HIPC period with all core debt burden indicators well below the thresholds for weak debt-carrying capacity, leaving substantial baseline borrowing space. Standardized stress tests, however, push debt service above its ceilings, which places Somalia at moderate rather than low risk of debt distress. The systematic evidence shows that across Sub-Saharan Africa, debt relief delivers durable gains only where strong institutions, prudent borrowing, and domestic revenue mobilization accompany it.

The findings identify three key determinants of post-HIPC debt sustainability. First, the benefits of borrowing depend on institutional capacity and the quality of public spending. Second, fiscal resilience requires strong governance and political commitment, not merely technical reforms. Third, weak transparency, political interference, and elite capture can undermine fiscal consolidation. For Somalia, these results suggest that the long-term benefits of debt relief will depend on stronger public financial management, improved domestic revenue mobilization, and prudent borrowing. The experience of other post-HIPC countries shows that debt relief creates fiscal space, but sustained development outcomes require continued governance reforms and sound fiscal management.

This study contributes to the literature by linking Somalia's post-HIPC experience to broader evidence on debt governance in fragile states. Future research could extend this analysis by incorporating alternative macroeconomic scenarios, stochastic simulations of climate and security shocks, and empirical assessments of the growth effects of debt-financed public investment in post-conflict economies.

AUTHOR CONTRIBUTIONS

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APPENDIX A

Table A1. Post-relief debt risk across HIPC countries

Country	Level of Debt Risk	Debt Relief Completion Year
Honduras	Low	2005
Benin	Moderate	2003
Burkina Faso	Moderate	2002
Côte d'Ivoire	Moderate	2012
Democratic Republic of Congo	Moderate	2010
Guinea	Moderate	2012
Liberia	Moderate	2010
Madagascar	Moderate	2004
Mauritania	Moderate	2002
Mali	Moderate	2003
Nicaragua	Moderate	2004
Rwanda	Moderate	2005
Senegal	Moderate	2004
Somalia	Moderate	2023
Tanzania	Moderate	2001
Togo	Moderate	2010
Uganda	Moderate	2000
Afghanistan	High	2010
Burundi	High	2009
Cameroon	High	2006
Central African Rep.	High	2009
Chad	High	2015
Comoros	High	2012
The Gambia	High	2007
Ghana	High	2004
Guinea-Bissau	High	2010
Haiti	High	2009
Mozambique	High	2001
Niger	High	2004
Sierra Leone	High	2006
Zambia	High	2005
Republic of Congo	In debt distress	2010
Ethiopia	In debt distress	2004
Malawi	In debt distress	2006
São Tomé & Príncipe	In debt distress	2007
Sudan	In debt distress	In process (reached HIPC decision point 2021)

Table A2. Systematic review of strategic debt management and post-HIPC debt governance

Source	Theme	County/Scope	Method	Finding
Jensen and Tarp (2006)	Debt dynamics & fiscal vulnerability	Mozambique (application); World Bank-IMF framework + CGE	SAM-based macro-micro model integrating CGE features with the WB-IMF projection framework	Integrating CGE with macro-projections reveals distributional and poverty impacts that standard macro-scenarios can miss; the integrated tool is superior for analyzing growth scenarios
Bauer et al. (2008)	Debt dynamics & fiscal vulnerability	Emerging markets (multi-country simulation)	Asset-backed security (ABS) structuring + simulation on historical bond data	A market-based ABS approach can reduce EM indebtedness via interest savings (20% average over 10 years; higher for some countries) at low implementation costs, without reforms or debt forgiveness
Bakre et al. (2022)	Governance & fiscal resilience	Nigeria	Critical political economy/ qualitative analysis of IPSAS within neoliberal reforms	Adopting IPSAS and neoliberal reforms did not prevent renewed debt-laden outcomes; better accounting alone is insufficient where corruption and dependency persist
Ndikumana (2004)	HIPC & aid effectiveness	Developing countries (donor & recipient perspectives)	Econometric analysis of aid flows and debt relief/forgiveness relationships	Debt relief recipients also received more aid, but donor-side evidence shows no causal link between debt relief and declining aid. Declining aid remains concerning, as debt relief alone is insufficient
Manzo (2003)	Governance & fiscal resilience	Africa (conceptual/ political analysis)	Political economy/ discourse analysis of RBD and neoliberal adjustment	State-centric RBD is paradoxical: accountability requirements rise while neoliberal policies weaken state capacity; RBD can extend conditionality despite promises to rethink neoliberalism
Cassimon et al. (2015)	HIPC & aid effectiveness	African HIPCs	Extended panel dataset + alternative econometric techniques with country effects	Debt relief (especially enhanced HIPC) increased domestic revenue and public investment; MDRI raised primary spending and revenue ratios, although its effects were smaller than those of HIPC
Belshaw et al. (1999)	HIPC & aid effectiveness	Uganda	Policy and sector analysis using macro/sector evidence	Uganda's adjustment success is limited by persistent trade deficits, weak agricultural exports, slow price liberalization, and institutional resistance, raising doubts about sustainability under aid dependence
Powell and Bird (2010)	HIPC & aid effectiveness	Sub-Saharan Africa (42 countries)	Panel econometrics on aid allocation (1988–2006)	Relationships among debt, debt relief, and aid evolved over time, reflecting complement/substitute dynamics across changing policy regimes
Ackah et al. (2020)	Governance & fiscal resilience	Ghana	Institutional/ policy analysis of PRMA stabilization/ heritage funds	Despite stabilization and sinking funds, Ghana still exhibits high deficits and borrowing, indicating challenges in implementation and revenue diversification
Nor (2024)	HIPC & aid effectiveness	Somalia	Narrative and strategic policy analysis	Post-HIPC gains require sustained reforms, fiscal discipline, and strategic investment; institutional fragility and external shocks threaten renewed debt distress
Auriol and Blanc (2009)	Governance & fiscal resilience	Sub-Saharan Africa (water/electricity)	Theory-evidence confrontation (public economics + empirical patterns)	Elite capture can distort pricing/subsidy policy; corrupt privatization of profit centers imposes high social costs in very poor countries
Humphrey and Michaelowa (2019)	HIPC & aid effectiveness	Africa (recipient-country perspective; MDBs)	Statistical tests + interviews in three recipient countries	China's finance has not been uniformly "game-changing" for MDB allocations; effects differ between concessional and non-concessional contexts
Horn et al. (2021)	Debt dynamics & fiscal vulnerability	Global (China's overseas lending)	Empirical analysis using loan-level datasets	Chinese overseas lending poses challenges for debt transparency and restructuring, highlighting the risks of hidden liabilities
Freytag and Pehnelt (2009)	HIPC & aid effectiveness]	Developing countries (HIPC-era patterns)	Empirical analysis of determinants and allocation of debt relief	Governance quality did not influence debt relief allocation in the 1990s; path dependence dominated; governance considerations became more relevant in the early 2000s

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Table A2 (cont.). Systematic review of strategic debt management and post-HIPC debt governance

Source	Theme	County/Scope	Method	Finding
Marchesi and Missale (2013)	HIPC & aid effectiveness	IDA countries (1982-2008)	Panel econometrics on loans, transfers, grants, and debt ratios	No evidence of defensive lending, but strong defensive granting: higher debt ratios reduce net loans but are offset by higher grants and relief, raising questions about aid efficiency
Mogues and Benin (2012)	Governance & fiscal resilience	Ghana (districts)	Panel data analysis of local public finance	Transfers discourage internally generated revenues despite incentive design, indicating potential fiscal moral hazard
Ferry et al. (2021)	HIPC & aid effectiveness	Low-income countries (HIPC/ MDRI)	Difference-in-differences using major debt relief programs	Debt relief fostered renewed private borrowing; reputational effects were weak; private creditors' short horizons facilitated reaccess
Nondo et al. (2025)	Governance & fiscal resilience	Zambia (1986–2018)	ARDL with governance proxies + interaction terms	Resource rents' growth impact depends on governance; effects are mixed across short- vs. long-term horizons
Bua et al. (2014)	Debt dynamics & fiscal vulnerability	Low-income countries (36; 1971–2011)	New dataset + descriptive and analytical exploration	Domestic government debt has risen since 1996; maturity lengthened and costs fell, but concentrated investor bases (banks/central banks) may crowd out private credit
Nissanke (2019)	Governance & fiscal resilience	Sub-Saharan Africa (policy position)	Conceptual policy framework synthesis	Standard macro-stability focus is inadequate; coordinated fiscal-monetary-financial policies are required for long-term structural transformation
Agyeman et al. (2022)	Debt dynamics & fiscal vulnerability	Selected SSA (2000–2015)	Dynamic system augmented growth model	External debt and capital flight reduce growth; high capital flight exacerbates debt's negative effects
Alvarez-Plata and Brück (2008)	Debt dynamics & fiscal vulnerability	Post-conflict African countries (3 cases)	Statistical + case study evidence	War-affected countries face rising arrears, strained creditor relations, slow trust-building, and delayed donor support; more forward-looking conditionality is needed
Muhanji and Ojah (2016)	Governance & fiscal resilience	Africa (37 countries; 2002–2010; regional blocs)	Panel econometrics with robustness checks	Better governance is linked to lower external debt; relationships vary by region; proximity and cultural-economic commonalities influence bloc patterns
Easterly (2002)	HIPC & aid effectiveness	HIPCs vs other LDCs (1980–97)	Comparative analysis controlling for income	HIPCs remained heavily indebted despite two decades of relief; shifting financing to concessional sources did not reduce NPV debt; overall record is weak
Alfandia (2024)	Debt dynamics & fiscal vulnerability	Multi-country / OECD-focused evidence-based	Systematic literature review (43 empirical publications)	Tax rules shape MNC internal debt and profit shifting; enforcement varies widely; anti-avoidance measures and legislative adjustments are needed
Collier (2006)	HIPC & aid effectiveness	Africa (conceptual + empirical analogy with oil)	Comparative reasoning using oil revenue as a natural experiment	Doubling aid may face diminishing returns; aid modalities may be more effective than oil revenue, but innovations are required to sustain impact
Letiche (2000)	Governance & fiscal resilience	East Asia (lessons from the Eurozone)	Institutional and theoretical synthesis	Area-wide monetary coordination, potentially including a regional IMF authority, can enhance resilience and integration
Muhanji and Ojah (2011)	Governance & fiscal resilience	Emerging economies of Africa	Threshold derivation and policy analysis	Persistent debt problems reflect weak governance and poor shock management; improved governance infrastructure can enhance outcomes
Brown and Cloke (2005)	Governance & fiscal resilience	Nicaragua (case)	Political economy and discourse analysis	IFIs promote dehistoricized corruption narratives emphasizing transparency and accountability, often at odds with local political realities
Cheng et al. (2018)	HIPC & aid effectiveness	Global (400+ Paris Club agreements)	Dataset descriptive analysis + impact evaluation	More generous nominal relief correlates with faster per capita growth and reduced poverty/inequality; aid responses vary by type of relief (nominal vs. NPV)
Ackah et al. (2019)	Governance & fiscal resilience	Ghana (Western region districts)	Desk review of district development plans	Centralized petroleum revenue allocation pressures service delivery; infrastructure projects are delayed; youth employment is limited; phased planning and skills programs are recommended

Table A2 (cont.). Systematic review of strategic debt management and post-HIPC debt governance

Source	Theme	County/Scope	Method	Finding
Gómez-Puig et al. (2022)	Debt dynamics & fiscal vulnerability	Global (115 countries; 1995–2016)	Grouped fixed effects + multinomial logit for drivers of heterogeneity	Debt impacts growth differently across groups; strong institutions and productive spending mitigate negative effects; higher indebtedness and debt maturity intensify risks
Mercer (2003)	Governance & fiscal resilience	Tanzania (case)	Qualitative political analysis of civil-society engagement	"Partnership" governance may be performative, legitimizing adjustment while genuine participation remains limited
Craig and Porter (2003)	Governance & fiscal resilience	Uganda (evidence) + broader PRSP convergence	Policy analysis of decentralization and poverty programs	PRSP convergence favors technical approaches, obscures power relations, and imposes compliance costs that constrain political options
Berlage et al. (2003)	HIPC & aid effectiveness	49 poor countries (proposal)	Policy/program design (15-year program)	Structured donor commitment could achieve human development goals and eliminate debt overhang through additional contributions and multilateral governance/conditionality
Law et al. (2021)	Debt dynamics & fiscal vulnerability	Developing countries (71; 1984–2015)	Dynamic panel threshold + robustness checks (quantile, outliers)	Debt threshold around 51.65% of the GDP; debt harms growth above the threshold; strong institutions mitigate negative effects
Lora and Olivera (2007)	Debt dynamics & fiscal vulnerability	50 countries (1985–2003)	Unbalanced panel econometrics	Higher debt ratios reduce social expenditures; multilateral loans do not fully offset; defaults may temporarily increase social spending
Ndikumana and Boyce (2003)	Debt dynamics & fiscal vulnerability	Sub-Saharan Africa (30 countries; 1970–96)	Econometric analysis of capital flight determinants	External borrowing is strongly linked to persistent capital flight; governance and macroeconomic factors also influence the magnitude
Baharumshah and Lau (2007)	Debt dynamics & fiscal vulnerability	Five East Asian countries	Time-series methods using intertemporal budget constraints; causality tests	Fiscal sustainability varies across countries; controlling expenditure can improve deficits
Coulibaly (2024)	Debt dynamics & fiscal vulnerability	African countries	Entropy balancing causal inference + robustness checks	Resource-backed loans can improve human development efficiency; effects vary by commodity type (oil/minerals positive; cocoa/tobacco negative)
Buffie et al. (2008)	HIPC & aid effectiveness	Low-income countries (theoretical)	Intertemporal optimizing model with currency substitution	Managed float with limited sterilization absorbs aid increases without inflation, interest rate spikes, or exchange rate overshooting when currency substitution is high
Bahiigwa et al. (2005)	Governance & fiscal resilience	Uganda	Policy analysis linked to household survey data	Agricultural modernization is reasonable, but decentralization mechanisms may be ill-suited; alternative delivery methods recommended
Braveman and Tarimo (2002)	Governance & fiscal resilience	Global (LMIC and HIC relevance)	Conceptual synthesis with special studies	Health equity requires explicit focus on within-country disparities; routine data can mask gaps; global economic pressures challenge equity
Niño-Zarazúa et al. (2012)	Governance & fiscal resilience	Sub-Saharan Africa	Policy review/ comparative synthesis	Two emerging models of social protection exist; effectiveness requires political alignment and technical design
Kamara et al. (2008)	HIPC & aid effectiveness	50+ low-income countries (GAVI FSPs)	Review/ classification of Financial Sustainability Plans	Strategies cluster around resource mobilization, reliability, and efficiency; gaps remain due to initial assumptions
Chimhowu et al. (2019)	Governance & fiscal resilience	Global (107 national plans + case studies)	Document analysis + typology; case study insights	Newer plans show more ownership, but vary in evidence, inclusiveness, and financing clarity; collaborative rationality underpins success
Muse (2025)	Governance & fiscal resilience	Somalia and Nigeria	Qualitative/field analysis (May 2023-May 2024)	FATF frameworks are ambiguous and challenging for domestic institutions. KYC and capacity limitations contribute to financial exclusion
Mohamed and Abdulle (2023)	Debt dynamics & fiscal vulnerability	Somalia	Empirical asymmetric/ nonlinear analysis	Government debt has asymmetric effects on GDP growth in Somalia
Gyeyir (2019)	Governance & fiscal resilience	Ghana	Qualitative comparative analysis + sensitivity analysis	Petroleum revenue transfers were mostly used for debt service (86.72%), limiting stabilization objectives

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Table A2 (cont.). Systematic review of strategic debt management and post-HIPC debt governance

Source	Theme	County/Scope	Method	Finding
Djimeu (2018)	HIPC & aid effectiveness	SSA (1996–2014)	Quasi-experimental approach exploiting timing/country variation	Enhanced HIPC increased public investment and some private investment; institutional quality change was limited; relief alone is insufficient for growth
Bernal et al. (2016)	Debt dynamics & fiscal vulnerability	Emerging and industrialized countries (S&P, 2013)	Two-step ordered probit (self-selection)	Unsolicited ratings are higher than solicited; reputation concerns influence rating behavior
Kilama (2016)	HIPC & aid effectiveness	Africa/LMICs	Analytical/empirical investigation	China and emerging donors reshape bargaining space, affecting fiscal behavior and private expectations about aid flows
Doğan and Bilgili (2014)	Debt dynamics & fiscal vulnerability	Not specified (study context depends on paper)	Markov regime-switching approach	High and rising external debt can have nonlinear, regime-dependent impacts on growth
Cassimon et al. (2011)	Debt dynamics & fiscal vulnerability	US-Indonesia case + broader swap evidence	Case study evaluation	Swaps often fail on additional budgetary space, conservation resources, debt burden reduction, and alignment; second-generation swaps should avoid common pitfalls
Frynas and Buur (2020)	Governance & fiscal resilience	Three African countries	Empirical evidence synthesis	Anticipation of extractive revenues can trigger volatility, higher debt, eroded governance, and conflict even before extraction
Mayvan et al. (2017)	Governance & fiscal resilience	Design patterns literature (software engineering)	Systematic mapping (2,775 screened; 637 included)	Classifies design pattern research into six topics; pattern development/mining/usage are the most active
Easterly (2005)	HIPC & aid effectiveness	Adjustment loan recipients (1980–99)	Probit + IV regressions on macro-distortions, policies, and growth	Repeated adjustment lending shows no robust positive effects; many recipients retain severe distortions despite cumulative lending.
Dijkstra and Van Donge (2001)	HIPC & aid effectiveness	Uganda	Critical assessment of adjustment evidence	Uganda's "ownership" was fragile; aid dependence declined over time; agricultural export supply response was limited, nuancing praise and criticism
Reinhart and Rogoff (2010)	Debt dynamics & fiscal vulnerability	Advanced & emerging economies (44 countries; 1790–2009)	Cross-country descriptive thresholds analysis	Median growth falls sharply once public debt exceeds about 90% of GDP; the debt-growth link is weaker below that level and varies between advanced and emerging economies
Kraay and Nehru (2006)	Debt dynamics & fiscal vulnerability	Low-income countries (94 episodes of debt distress)	Probit models of debt-distress determinants	The likelihood of debt distress rises with the debt burden, falls with the quality of policies and institutions, and is sensitive to shocks; institution-adjusted thresholds outperform uniform ones
Pattillo et al. (2011)	Debt dynamics & fiscal vulnerability	Developing countries (93 countries; 1969–1998)	Panel growth regressions with nonlinear debt terms	External debt depresses growth above moderate thresholds through reduced investment and lower capital productivity, consistent with debt-overhang effects
Imbs and Ranciere (2009)	Debt dynamics & fiscal vulnerability	Developing-country debt crises (panel)	Nonparametric and panel estimation of the debt overhang	The debt–growth relationship is hump-shaped; overhang effects appear only at high debt levels, implying gains from relief are concentrated among the most distressed
Arslanalp and Henry (2005)	HIPC & aid effectiveness	Heavily indebted poor countries (HIPCs)	Comparative analysis vs. middle-income debt relief (Brady plan)	Debt relief raises investment only where the binding constraint is debt overhang; in many HIPCs, weak institutions, not debt, constrain growth, so relief alone yields limited gains
Chauvin and Kraay (2005)	HIPC & aid effectiveness	Low-income countries (62 countries)	Event-study and cross-country regressions on relief episodes	Debt relief produced little measurable effect on investment, growth, or policy quality, suggesting that relief did not systematically relax a binding constraint
Presbitero (2009)	Debt dynamics & fiscal vulnerability	Low- and middle-income countries (panel)	Dynamic panel (GMM) growth estimation	Debt harms growth only where policies and institutions are sufficiently strong to make resources productive; below an institutional threshold, the debt–growth link is negligible
Dessy and Vencatachellum (2007)	HIPC & aid effectiveness	African HIPCs	Theoretical model with empirical calibration	Conditional debt relief can raise public spending on growth-enhancing sectors only when paired with credible governance conditionality; unconditional relief risks reversal

Table A2 (cont.). Systematic review of strategic debt management and post-HIPC debt governance

Source	Theme	County/Scope	Method	Finding
Asonuma and Trebesch (2016)	Debt dynamics & fiscal vulnerability	Sovereign defaults (global; 1978–2010)	Empirical analysis of preemptive vs. post-default restructurings	Preemptive restructurings are faster, impose smaller output and credit losses, and restore market access sooner than post-default restructurings
Cordella et al. (2010)	Debt dynamics & fiscal vulnerability	Developing countries (panel)	Panel threshold regressions on debt overhang	Debt overhang appears at intermediate debt ratios and vanishes at very high or very low ratios; institutional quality shifts the location of the overhang region
Eberhardt and Presbitero (2015)	Debt dynamics & fiscal vulnerability	118 countries (1960–2012)	Cross-country panel with parameter heterogeneity	There is a negative long-run debt–growth relationship on average, but no common threshold across countries; heterogeneity, not a universal tipping point, characterizes the data
Calderón and Fuentes (2013)	Debt dynamics & fiscal vulnerability	Industrial & developing economies (panel)	Panel growth regressions with institutional interactions	Negative debt-growth effects are larger where institutions are weak, fiscal rules are absent, and financial markets are shallow, reinforcing the conditioning role of governance
Cassimon and Van Campenhout (2007)	HIPC & aid effectiveness	HIPC countries (fiscal response)	Fiscal-response model estimation	Debt relief altered the composition of public budgets toward investment and social spending more than it raised aggregate spending, with effects mediated by aid
Bird and Milne (2003)	HIPC & aid effectiveness	Heavily indebted poor countries	Analytical policy assessment of the HIPC Initiative	HIPC design improved on earlier relief but risked recreating unsustainable debt without sustained growth, export diversification, and prudent new borrowing
Thomas (2001)	HIPC & aid effectiveness	HIPC countries	Conceptual and empirical assessment of debt sustainability	Standard HIPC sustainability thresholds understate vulnerability because they ignore the volatility of exports and revenue in commodity-dependent economies
Mupunga and Le Roux (2015)	Debt dynamics & fiscal vulnerability	Zimbabwe (1980–2012)	Endogenous threshold and growth estimation	An optimal public-debt threshold of roughly 45–55% of GDP is identified; debt above it is associated with slower growth in a fragile macro-fiscal setting
Were (2001)	Debt dynamics & fiscal vulnerability	Kenya (1970–1995)	Time-series debt-overhang and investment estimation	External debt accumulation and debt servicing crowd out private investment and dampen growth, providing country-level evidence of debt overhang and the crowding-out effect

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