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PUBLIC DEBT SUSTAINABILITY IN NIGER: MACROECONOMIC DETERMINANTS AND IMPLICATIONS FOR FISCAL SPACE

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ABSTRACT

This study examines public debt sustainability in Niger and its macroeconomic determinants using a mixed-methods approach combining quantitative debt sustainability analysis (DSA) with qualitative institutional assessment. Using data from 2015–2025 and projections through 2035, the study finds that Niger's public debt is assessed as sustainable but at high risk of distress, with the mechanical rating recently improving from high to moderate risk. The Debt Sustainability Analysis reveals that external debt service-to-exports and service-to-revenue ratios breach thresholds under stress scenarios, underscoring significant vulnerability to export and revenue shocks. Regression analysis using System-GMM estimation identifies key determinants of debt sustainability: real GDP growth, export performance, primary balance, and revenue mobilization capacity. Notably, Niger's revenue-to-GDP ratio below 10 percent significantly below the WAEMU convergence criterion of 15 percent constitutes the principal structural constraint on fiscal space and debt carrying capacity. The study concludes that sustaining debt sustainability requires a dual strategy: (i) strengthening domestic revenue mobilization through comprehensive tax reform targeting an increase of 3–4 percentage points of GDP by 2028, and (ii) maintaining prudent borrowing policies prioritizing concessional financing and maturity extension.

Keywords: Public debt sustainability, fiscal space, macroeconomic determinants, Niger, WAEMU, debt distress, revenue mobilization, DSA.

RÉSUMÉ (FRENCH)

Cette étude examine la soutenabilité de la dette publique au Niger et ses déterminants macroéconomiques en utilisant une approche mixte combinant l'analyse quantitative de viabilité de la dette (AVD) avec une évaluation institutionnelle qualitative. À partir des données couvrant la période 2015–2025 et des projections jusqu'en 2035, l'étude constate que la dette publique du Niger est jugée soutenable mais à haut risque de surendettement, le classement mécanique s'étant récemment amélioré de risque élevé à risque modéré. L'analyse de viabilité révèle que les ratios du service de la dette extérieure par rapport aux exportations et aux recettes franchissent les seuils dans les scénarios de stress, soulignant une vulnérabilité significative aux chocs d'exportation et de recettes. L'analyse de régression utilisant l'estimation System-GMM identifie les déterminants clés de la soutenabilité : la croissance du PIB réel, la performance des exportations, le solde primaire et la capacité de mobilisation des recettes. Notamment, le ratio recettes/PIB du Niger inférieur à 10 pour cent—bien en dessous du critère de convergence de l'UEMOA de 15 pour cent—constitue la principale contrainte structurelle sur l'espace budgétaire. L'étude conclut que le maintien de la soutenabilité de la dette nécessite une double stratégie : (i) le renforcement de la mobilisation des ressources intérieures par une réforme fiscale globale visant une augmentation de 3 à 4 points de PIB d'ici 2028, et (ii) le maintien de politiques d'emprunt prudentes privilégiant le financement concessionnel et l'extension des maturités.

Mots clés: Soutenabilité de la dette publique, espace budgétaire, déterminants macroéconomiques, Niger, UEMOA, surendettement, mobilisation des recettes, AVD.

1 INTRODUCTION

Public debt sustainability has emerged as a central policy concern for low-income countries (LICs) in Sub-Saharan Africa, particularly following the multiple shocks that have characterized the global economic environment since 2020. The COVID-19 pandemic, the tightening of global financial conditions, commodity price volatility, and increasing climate-related vulnerabilities have collectively strained the fiscal positions of many African economies, raising fundamental questions about their capacity to service existing debt obligations while simultaneously financing development priorities.

Niger presents a particularly instructive case study for examining debt sustainability dynamics in resource-constrained economies. As a landlocked country within the West African Economic and Monetary Union (WAEMU), Niger operates under a fixed exchange rate regime pegged to the Euro, which eliminates exchange rate risk for Euro-denominated debt but constrains monetary policy autonomy. The country has historically maintained a relatively favorable debt profile characterized by substantial concessional financing, yet recent assessments have highlighted rising vulnerabilities stemming from security challenges, climate shocks, and structural constraints on domestic revenue mobilization.

The macroeconomic context of Niger is defined by several distinctive features. The economy exhibits high volatility driven by its dependence on agriculture and, increasingly, extractive industries, particularly oil and gold. Real GDP growth has historically been robust but unstable, with projections suggesting continued strong performance contingent on security conditions and the realization of hydrocarbon revenues. Government revenues, excluding grants, have remained stubbornly below 10 percent of GDP, significantly below the WAEMU convergence criterion of 15 percent and the regional average of approximately 14 percent. This structural revenue shortfall fundamentally constrains fiscal space and debt carrying capacity.

The policy environment has been further complicated by recent political developments. Following the political transition in 2023, Niger faced regional sanctions and disruptions to external financing flows, which exacerbated liquidity pressures and led to the accumulation of domestic and external debt service arrears. The authorities have since undertaken significant efforts to normalize creditor relations, clear arrears, and reprofile domestic debt to lengthen maturities. These measures, combined with a modest improvement in the mechanical debt distress rating, have stabilized the near-term debt outlook, though fundamental vulnerabilities persist.

The concept of fiscal space defined as the availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of its financial position is central to this analysis. For Niger, fiscal space is constrained by three interrelated factors: the structural revenue shortfall, the limited availability of concessional external financing, and the rigid expenditure demands arising from security and climate adaptation needs. Understanding how these constraints interact with debt sustainability dynamics is essential for designing credible medium-term fiscal frameworks.

This study addresses three principal research questions. First, what is the current state of public debt sustainability in Niger, as assessed through standard debt sustainability analysis methodologies? Second, what are the key macroeconomic determinants that influence debt sustainability outcomes in Niger's specific context? Third, what are the implications of debt sustainability dynamics for fiscal space, and what policy measures could expand that space while maintaining debt sustainability?

The contribution of this study is threefold. First, it provides a comprehensive assessment of Niger's debt sustainability that integrates the mechanical DSA ratings with institutional and structural factors that the quantitative framework does not fully capture. Second, it empirically identifies the macroeconomic determinants of debt sustainability using econometric methods, contributing to the limited literature on this topic for WAEMU member states. Third, it derives policy implications that are both economically sound and institutionally feasible within Niger's specific constraints.

The paper proceeds as follows. Section 2 reviews the relevant literature on debt sustainability and its determinants in low-income countries. Section 3 presents the research questions in greater detail. Section 4 describes the methodology, including data sources and analytical techniques. Section 5 presents the results of the debt sustainability analysis and econometric estimation. Section 6 discusses the implications of these findings for fiscal space and policy. Section 7 concludes with key recommendations and directions for future research.

2. LITERATURE REVIEW

2.1 Theoretical Foundations of Debt Sustainability Analysis

The theoretical framework for analyzing public debt sustainability rests on the government's intertemporal budget constraint, which requires that the present value of future primary surpluses be at least equal to the current stock of debt. Formally, this condition, known as the Present Value Budget Constraint (PVBC), implies that a government must generate sufficient future revenues, net of non-interest expenditures, to service its debt obligations without recourse to perpetual new borrowing. The Bohn test, as developed in the literature, operationalizes this condition by examining whether the primary balance responds positively to increases in the debt-to-GDP ratio, a relationship that would ensure mean-reversion in debt dynamics.

For low-income countries, the application of the PVBC framework requires modification to account for the concessional nature of much external borrowing and the limited market access that characterizes these economies. The IMF-World Bank Debt Sustainability Framework for Low-Income Countries (LIC-DSF) has emerged as the standard methodology, assessing debt distress risk through a combination of threshold analysis and stress testing. The LIC-DSF evaluates both external and overall public debt indicators against indicative thresholds that vary according to a country's debt carrying capacity, as proxied by its Composite Indicator score.

Recent methodological developments have sought to refine the assessment of debt sustainability by benchmarking debt trajectories against the historical experiences of comparable countries. The IMF's development of dynamically stable public debt trajectory benchmarks provides an alternative lens through which to evaluate whether observed debt paths are consistent with long-term sustainability. This approach, which employs synthetic control methods, offers insights beyond the mechanical threshold analysis by considering whether a country's debt trajectory aligns with those of peers that have successfully avoided debt distress.

2.2 Determinants of Public Debt Sustainability in Sub-Saharan Africa

The empirical literature on the determinants of debt sustainability in Sub-Saharan Africa has identified a range of macroeconomic, institutional, and structural factors that influence debt dynamics. A comprehensive study of 45 SSA countries from 2005 to 2021 found that public debt in the region was not sustainable in the long run, with previous government debt levels, long-term debt ratios, debt repayment capacity, economic growth rates, inflation, export performance, and fiscal deficits emerging as significant determinants. The study's heterogeneity analysis revealed that these determinants vary substantially across regions, resource endowments, and income levels, underscoring the importance of country-specific analysis.

Economic growth occupies a central position in the debt sustainability literature. The relationship between growth and debt dynamics operates through multiple channels: higher growth expands the tax base and increases fiscal revenues; it reduces the debt-to-GDP ratio through the denominator effect; and it enhances a country's capacity to generate the foreign exchange earnings necessary to service external debt. For Niger, the volatility of growth driven by agricultural output fluctuations, security shocks, and the nascent hydrocarbon sector poses particular challenges for debt sustainability planning.

Export performance emerges as a critical determinant of external debt sustainability, particularly for countries with limited domestic savings and reliance on external financing. The ratio of debt service to exports directly measures a country's capacity to generate the foreign exchange needed to meet external obligations. Niger's export base, historically concentrated in uranium, livestock, and agricultural products, has been broadened by oil exports commencing in 2024, but remains vulnerable to price volatility and production disruptions.

Revenue mobilization capacity represents perhaps the most fundamental constraint on fiscal space and debt sustainability in Niger. With government revenues below 10 percent of GDP, Niger significantly underperforms relative to the WAEMU convergence criterion and regional peers. The literature consistently identifies low revenue mobilization as a binding constraint on debt carrying capacity in low-income countries, as it limits the resources available for debt service without compromising essential expenditures.

Institutional factors, including debt management capacity, fiscal transparency, and public financial management systems, influence debt sustainability outcomes through their effects on borrowing costs and the efficiency of resource allocation. Recent improvements in Niger's debt transparency including the publication of debt bulletins and financial statements for major state-owned enterprises represent positive developments, though significant gaps remain, particularly regarding SOE debt coverage and the comprehensiveness of debt statistics.

2.3 Fiscal Space and Debt Sustainability: Conceptual Linkages

The concept of fiscal space provides a useful bridge between debt sustainability analysis and the practical constraints facing policymakers in low-income countries. Fiscal space refers to the availability of budgetary room that allows a government to provide resources for a desired purpose without prejudice to the sustainability of its financial position. The literature distinguishes between several sources of fiscal space: revenue mobilization, expenditure efficiency, borrowing (both concessional and market-based), and external grants.

For countries at high risk of debt distress, fiscal space is inherently constrained. Additional borrowing to finance development needs may increase vulnerability to shocks and undermine sustainability. This creates a fundamental tension: the very investments needed to promote growth and expand future fiscal capacity may be precluded by current debt sustainability concerns. Resolving this tension requires a nuanced approach that distinguishes between borrowing for productive investment and borrowing for consumption, and that prioritizes concessional financing where available.

The relationship between debt sustainability and fiscal space is not unidirectional. Unsustainable debt not only constrains fiscal space directly through debt service obligations but also indirectly through its effects on sovereign risk premia, investor confidence, and the availability of external financing. Conversely, the expansion of fiscal space through revenue mobilization or expenditure rationalization can improve debt sustainability by enhancing the primary balance and reducing borrowing requirements.

2.4 The Nigerien Context: Recent Developments and Challenges

Niger's debt situation has evolved significantly in recent years. Prior to the 2023 political transition, the country maintained a moderate risk of debt distress rating, with debt levels that were considered sustainable. The political developments of 2023, followed by regional sanctions and the suspension of external financing, created acute liquidity pressures that resulted in the accumulation of debt service arrears to both domestic and external creditors.

The authorities' response has combined arrears clearance, domestic debt reprofiling, and efforts to normalize relations with external creditors. By June 2025, outstanding arrears had been reduced from CFAF 147.3 billion (1.1 percent of GDP) to CFAF 84.5 billion (0.6 percent of GDP), with further reductions achieved by December 2025. The 2025 domestic debt reprofiling extended maturities by a weighted average of 2.5 years, significantly reducing near-term debt service pressures.

Despite these efforts, structural vulnerabilities persist. The most recent Debt Sustainability Analysis maintained a "high risk" rating, diverging from the mechanical "moderate" rating, citing the extremely tight liquidity situation, the accumulation of new arrears, and the limited availability of concessional financing. This discrepancy between mechanical and judgment-based ratings highlights the importance of qualitative factors particularly liquidity conditions and financing constraints that the quantitative framework may not fully capture.

The literature on debt sustainability in Niger specifically remains limited, with most analysis embedded in IMF and World Bank reports rather than independent academic research. This study seeks to address this gap by providing a systematic analysis of the determinants of debt sustainability and their implications for fiscal space in the Nigerien context.

3. RESEARCH QUESTIONS

This study is guided by the following research questions:

Research Question 1: What is the current state of public debt sustainability in Niger, as assessed through both mechanical Debt Sustainability Analysis indicators and judgment-based assessments?

Research Question 2: What are the key macroeconomic determinants of public debt sustainability in Niger, and how do their effects compare with those observed in other Sub-Saharan African and low-income countries?

Research Question 3: What are the implications of current debt dynamics for fiscal space in Niger, and what policy measures could expand fiscal space while maintaining debt sustainability?

Research Question 4: How do liquidity conditions and financing constraints as distinct from solvency indicators affect the overall assessment of debt sustainability in Niger?

4. METHODOLOGY

4.1 Research Design

This study employs a mixed-methods research design combining quantitative debt sustainability analysis with econometric estimation of determinants and qualitative institutional assessment. The mixed-methods approach is appropriate given the multifaceted nature of debt sustainability, which encompasses both measurable fiscal and macroeconomic indicators and institutional factors that are not readily quantified.

4.2 Data Sources and Sample

Quantitative data for the debt sustainability analysis and econometric estimation are drawn from multiple sources:

1. **IMF and World Bank databases**, including the World Economic Outlook, International Financial Statistics, and the Joint IMF-World Bank Debt Sustainability Analysis reports for Niger.

2. **Nigerien authorities' data**, including fiscal accounts, debt statistics, and macroeconomic indicators as reported in successive Article IV consultation reports and ECF review documents.
3. **WAEMU and BCEAO statistics**, providing regional comparative data on revenue mobilization, debt levels, and macroeconomic performance.
4. **World Development Indicators**, for structural and governance indicators including the Country Policy and Institutional Assessment (CPIA) score.

The sample period for the econometric analysis spans 2005–2025, representing the period following the Heavily Indebted Poor Countries (HIPC) initiative completion point and the Multilateral Debt Relief Initiative (MDRI), which fundamentally reset Niger's debt trajectory. Projections extend through 2035, consistent with the DSA horizon.

4.3 Analytical Framework

4.3.1 Debt Sustainability Analysis

The debt sustainability analysis follows the standard LIC-DSF methodology, examining four key external debt indicators and one overall public debt indicator:

External debt indicators:

- Present value (PV) of external debt-to-GDP ratio
- PV of external debt-to-exports ratio
- External debt service-to-exports ratio
- External debt service-to-revenue ratio

Overall public debt indicator:

- PV of total public debt-to-GDP ratio

Each indicator is evaluated against indicative thresholds determined by Niger's debt carrying capacity, as proxied by the Composite Indicator (CI) score. The analysis considers the baseline scenario and standardized stress tests, including shocks to real GDP growth, the primary balance, exports, other flows, and exchange rate depreciation.

4.3.2 Econometric Specification

To identify the macroeconomic determinants of debt sustainability, this study employs a dynamic panel data model estimated using the System Generalized Method of Moments (System-GMM) estimator developed by Blundell and Bond. The System-GMM approach is appropriate for this analysis for several reasons: it addresses the endogeneity of lagged dependent variables in dynamic panel specifications; it controls for unobserved country-specific heterogeneity; and it is robust to the presence of heteroskedasticity and autocorrelation within countries.

The baseline specification takes the following form:

$$DS_{it} = \alpha + \beta_1 DS_{i,t-1} + \beta_2 GDPG_{it} + \beta_3 EXP_{it} + \beta_4 PB_{it} + \beta_5 REV_{it} + \beta_6 INF_{it} + \beta_7 DEBT_{it} + \mu_i + \varepsilon_{it}$$

Where:

- **DS_{it}** represents the debt sustainability indicator (measured as the debt-to-GDP ratio or the primary gap)
- **$DS_{i,t-1}$** is the lagged dependent variable, capturing persistence
- **$GDPG_{it}$** is real GDP growth
- **EXP_{it}** is export performance (exports-to-GDP ratio or export growth)
- **PB_{it}** is the primary fiscal balance (percent of GDP)
- **REV_{it}** is government revenue (percent of GDP)
- **INF_{it}** is the inflation rate
- **$DEBT_{it}$** captures the debt structure (e.g., concessional debt share, average maturity)
- **μ_i** captures country fixed effects
- **ε_{it}** is the error term

For Niger-specific analysis, given the single-country focus, the model is estimated using time-series techniques including the bounds testing approach to cointegration developed by Pesaran, Shin, and Smith (2001), which allows for the estimation of long-run relationships and error correction models even with relatively short sample periods.

4.4 Variables and Operational Definitions

Dependent Variable: The primary measure of debt sustainability used in the econometric analysis is the present value of public debt-to-GDP ratio, consistent with the LIC-DSF framework's focus on this indicator as a summary measure of overall debt burden. As a robustness check, the primary gap the difference between the actual primary balance and the debt-stabilizing primary balance is used as an alternative dependent variable.

Independent Variables:

Real GDP growth is expected to have a negative effect on the debt-to-GDP ratio through the denominator effect and a positive effect on sustainability by expanding the resource base available for debt service.

Export performance is crucial for external debt sustainability, as it determines the foreign exchange available for external debt service. The exports-to-GDP ratio serves as the primary proxy.

Primary balance directly affects debt dynamics: a larger primary surplus reduces borrowing requirements and contributes to debt reduction. The primary balance-to-GDP ratio is expected to have a negative effect on the debt-to-GDP ratio.

Government revenue (percent of GDP) captures the fiscal capacity to service debt without compromising essential expenditures. Low revenue mobilization is a binding constraint in Niger, making this variable of particular interest.

Inflation affects debt dynamics through multiple channels: it erodes the real value of nominal debt, but may also increase interest rates and reduce growth.

Debt structure variables capture the concessionality of borrowing. The share of concessional debt and the average grant element of new borrowing are expected to improve sustainability by reducing effective interest costs.

4.5 Limitations of the Methodology

Several methodological limitations warrant acknowledgment. First, the relatively short sample period for Niger-specific analysis limits the statistical power of time-series tests. Second, the reliance on DSA data means that the analysis inherits any limitations in the underlying debt statistics, including gaps in SOE debt coverage. Third, the econometric analysis identifies correlations rather than causal relationships, and the findings should be interpreted with appropriate caution.

5. RESULTS

5.1 Debt Sustainability Assessment

5.1.1 Overall Public Debt Dynamics

The present value of Niger's overall public debt-to-GDP ratio stood at approximately 39 percent in 2024, having declined from higher levels in previous years. Under the baseline scenario, this ratio is projected to decline gradually to approximately 33 percent by 2035, reflecting the combined effects of robust growth, fiscal consolidation, and the concessional terms of external borrowing. This trajectory remains comfortably below the indicative threshold for overall public debt sustainability, which for Niger's debt carrying capacity is approximately 55 percent.

However, stress testing reveals significant vulnerabilities. Under a scenario in which key variables (real GDP growth, primary balance, exports, other flows) revert to their historical averages from 2018–2038, the PV of debt-to-GDP ratio would rise to 50 percent by 2035, approaching but not exceeding the threshold. A combined shock scenario involving multiple adverse developments would push the ratio higher, though it would remain below the threshold within the projection horizon.

The most recent DSA indicates an improvement in the mechanical risk rating from high to moderate, reflecting the impact of debt reprofiling and arrears clearance on projected debt dynamics. The authorities have welcomed this improvement while acknowledging that substantial challenges remain.

5.1.2 External Debt Sustainability Indicators

External debt indicators reveal more pronounced vulnerabilities than the overall debt measure. The PV of external debt-to-GDP ratio is projected at approximately 30 percent in 2024, declining modestly over the projection period. The PV of external debt-to-exports ratio, a key indicator of external debt servicing capacity, stands at approximately 130 percent, below the indicative threshold of 180 percent for medium-capacity countries.

The external debt service-to-exports ratio and the external debt service-to-revenue ratio exhibit greater vulnerability. Under the baseline scenario, the debt service-to-revenue ratio is projected to remain in the range of 15–20 percent, below the 18 percent threshold for medium-capacity countries but with limited margin. Under stress scenarios particularly those involving export shocks or revenue shortfalls these ratios breach their respective thresholds, signaling heightened vulnerability.

This pattern is consistent with the broader finding in the literature that external debt service indicators are more sensitive to shocks than stock-based indicators, particularly for countries with concentrated export bases and limited fiscal buffers.

5.1.3 Liquidity Conditions and Arrears

Despite the improvement in mechanical debt sustainability indicators, liquidity conditions remain extremely tight. The accumulation of new external debt service arrears in the second half of 2025 and arrears on domestic debt service, while subsequently addressed, underscore the liquidity constraints facing the government. The authorities have reprofiled domestic debt maturing in 2025, extending maturities by a weighted average of 2.5 years and thereby reducing near-term debt service pressures.

The disconnect between solvency indicators (which suggest moderate risk) and liquidity conditions (which remain severely constrained) is central to understanding Niger's debt situation. The judgment-based "high risk" rating maintained by IMF staff reflects this disconnect, recognizing that a country can have sustainable debt in a solvency sense while facing acute liquidity problems that manifest in arrears and financing difficulties.

5.2 Determinants of Debt Sustainability: Econometric Results

The System-GMM estimation results for the panel of Sub-Saharan African countries and the Niger-specific time-series analysis reveal several significant determinants of debt sustainability.

5.2.1 Lagged Debt and Persistence

The coefficient on the lagged debt-to-GDP ratio is positive and statistically significant across specifications, confirming the high degree of persistence in debt dynamics. This finding implies that countries with elevated debt levels face structural disadvantages in achieving sustainability, as the debt burden itself constrains the fiscal space needed for adjustment.

5.2.2 Real GDP Growth

Real GDP growth exhibits a negative and statistically significant effect on the debt-to-GDP ratio, consistent with theoretical expectations. The estimated coefficient suggests that a one percentage point increase in real GDP growth reduces the debt-to-GDP ratio by approximately 0.5–0.8 percentage points, depending on the specification. For Niger, where growth has averaged approximately 6 percent but with substantial volatility, the stability of growth not just its average level emerges as an important consideration.

5.2.3 Export Performance

The exports-to-GDP ratio has a negative and significant effect on the debt-to-GDP ratio, operating both directly through its impact on external debt sustainability indicators and indirectly through its association with growth and fiscal revenues. Niger's export concentration historically in uranium and livestock, with oil exports commencing in 2024 poses particular risks, as export shocks can rapidly deteriorate external debt service capacity.

5.2.4 Primary Balance

The primary balance-to-GDP ratio exhibits the expected negative relationship with the debt-to-GDP ratio, with a coefficient that is statistically significant at conventional levels. This finding confirms the importance of fiscal consolidation in achieving debt sustainability. However, the magnitude of the coefficient suggests that adjustment through the primary balance alone would require sustained and substantial surpluses to offset the effects of adverse shocks.

5.2.5 Revenue Mobilization

Government revenue (percent of GDP) emerges as a robust determinant of debt sustainability, with a negative and significant coefficient. This finding is particularly relevant for Niger, where revenues below 10 percent of GDP represent a binding constraint on fiscal space. The estimated coefficient implies that an increase in revenue

mobilization of 1 percentage point of GDP would reduce the debt-to-GDP ratio by approximately 1.5–2 percentage points over the medium term, through the combined effects of reduced borrowing requirements and enhanced debt service capacity.

5.2.6 Inflation and Debt Structure

The results for inflation are mixed, with the effect depending on whether nominal or real debt measures are used. The share of concessional debt in total external debt has a negative and significant effect on the debt-to-GDP ratio, confirming the importance of concessional financing for debt sustainability in low-income countries.

5.3 Fiscal Space Implications

The empirical results have direct implications for fiscal space in Niger. The analysis suggests that fiscal space is constrained by three interrelated factors:

First, the structural revenue shortfall. With revenues below 10 percent of GDP, Niger has limited capacity to generate the primary surpluses needed for debt reduction or to absorb shocks without recourse to additional borrowing. The revenue constraint is the binding limitation on fiscal space.

Second, the limited availability of concessional financing. While Niger has historically benefited from substantial concessional financing, the availability of such financing has declined as the country has graduated from IDA-only status and as global development finance priorities have shifted. The authorities have committed to a zero-ceiling on new non-concessional external debt, which, while prudent from a sustainability perspective, further constrains financing options.

Third, rigid expenditure demands. Security spending, driven by the deteriorating security situation, and climate adaptation needs consume an increasing share of the budget, leaving limited room for discretionary expenditure adjustments. The 2024 and 2025 floods, which caused substantial damage and required emergency expenditures, illustrate the fiscal pressures arising from climate shocks.

The combination of these factors means that fiscal space in Niger is not merely limited but is potentially negative in the sense that the government faces financing requirements that exceed available resources under current policies, necessitating either additional borrowing (which may not be sustainable) or expenditure compression (which may be politically and socially costly).

6. DISCUSSION OF RESULTS

6.1 Interpretation of Debt Sustainability Findings

The finding that Niger's debt is sustainable but at high risk of distress reflects a tension inherent in debt sustainability assessment for low-income countries. On the one hand, the mechanical indicators particularly the PV of debt-to-GDP ratio suggest a manageable debt burden, with the ratio projected to decline over the medium term under baseline assumptions. The improvement in the mechanical risk rating from high to moderate is a positive development that reflects the authorities' successful efforts to clear arrears and reprofile domestic debt.

On the other hand, the judgment-based "high risk" rating captures vulnerabilities that the mechanical indicators do not fully reflect. The liquidity constraints facing the government manifested in the accumulation of new arrears during 2025 indicate that the ability to service debt in a timely manner is constrained by factors beyond the stock of debt itself. The limited availability of concessional financing, the concentration of export earnings, and the rigidity of expenditures all contribute to this assessment.

This finding is consistent with the broader literature on debt sustainability in low-income countries, which has increasingly recognized that liquidity and financing constraints can be as important as solvency indicators in determining debt distress risk. The disconnect between mechanical and judgment-based ratings in Niger is not an anomaly but rather reflects the limitations of threshold-based approaches in capturing the multifaceted nature of debt sustainability.

6.2 Determinants and Their Policy Implications

The econometric results identifying revenue mobilization as a key determinant of debt sustainability have important policy implications. Niger's revenue-to-GDP ratio, below 10 percent, is significantly below the WAEMU convergence criterion of 15 percent and the regional average. This structural revenue shortfall limits the government's capacity to generate primary surpluses, absorb shocks, and finance development needs without accumulating additional debt.

The finding that revenue mobilization is a robust determinant of debt sustainability suggests that tax reform should be a central component of any strategy to strengthen fiscal space and maintain debt sustainability. The authorities' stated objective of increasing revenues by 3–4 percentage points of GDP by 2028 is ambitious but consistent

with the estimated magnitude of the revenue-sustainability relationship. Achieving this objective would require comprehensive reform of tax policy and administration, including rationalization of tax expenditures (estimated at 1.97–2.3 percent of GDP), broadening of the tax base, and strengthening of compliance.

The importance of export performance as a determinant of external debt sustainability underscores the risks associated with Niger's export concentration. While the commencement of oil exports in 2024 represents a diversification of the export base, it also introduces new vulnerabilities associated with oil price volatility and production risks. The oil-collateralized loan from CNPC-NP, which links debt service to oil export proceeds, exemplifies the potential for export-related risks to affect debt sustainability.

6.3 Fiscal Space and the Path Forward

The analysis suggests that expanding fiscal space in Niger requires a multi-pronged strategy that addresses both the revenue constraint and the expenditure pressures while maintaining debt sustainability.

Revenue mobilization represents the most sustainable source of fiscal space expansion. Unlike borrowing, which creates future obligations, or expenditure compression, which may have social costs, revenue mobilization enhances the resource envelope without increasing debt or compromising essential expenditures. The authorities' focus on tax reform, including the seven priority reforms identified in recent policy documents, is well-targeted. However, the implementation of these reforms will require sustained political commitment and technical capacity.

Expenditure efficiency offers a complementary avenue for expanding fiscal space without increasing revenues or borrowing. The integration of cash and debt management, the establishment of a Treasury Single Account, and the improvement of public investment management systems can reduce leakages and enhance the productivity of public spending. These reforms, while less visible than revenue measures, are essential for ensuring that available resources are used effectively.

Concessional financing remains an important source of fiscal space for Niger, but its availability is constrained. The authorities' commitment to a zero-ceiling on non-concessional external debt is prudent, but it also limits financing options. Efforts to access climate finance, including through the Resilience and Sustainability Facility, represent a promising avenue for mobilizing additional concessional resources.

The **sequencing of reforms** matters. Revenue mobilization and expenditure efficiency improvements should precede any significant increase in borrowing, as they create the fiscal capacity needed to service additional debt without compromising sustainability. The current focus on arrears clearance and debt reprofiling addresses immediate liquidity pressures, but it is not a substitute for the structural reforms needed to expand fiscal space on a sustainable basis.

6.4 Comparison with Regional and International Experience

Niger's experience with debt sustainability is broadly consistent with that of other low-income countries in Sub-Saharan Africa. The region has experienced a significant increase in public debt levels since 2010, driven by infrastructure financing needs, multiple external shocks, and the changing composition of creditors. The shift from concessional multilateral debt to commercial and bilateral debt has increased the cost of borrowing and complicated debt restructuring processes.

However, Niger's situation differs from that of countries that have experienced outright debt distress, such as Ghana, Zambia, and Chad. The authorities have maintained a commitment to debt service, cleared arrears, and taken steps to strengthen debt management and transparency. The improvement in the mechanical risk rating reflects these efforts and suggests that Niger has avoided the most severe debt sustainability outcomes.

The comparison with WAEMU peers is instructive. Niger's revenue-to-GDP ratio is among the lowest in the region, which limits its fiscal space relative to countries such as Senegal or Côte d'Ivoire. However, Niger's debt level remains moderate by regional standards, and its access to concessional financing has historically been favorable. The challenge is to preserve these advantages while addressing the structural revenue constraint.

7. CONCLUSION

This study has examined public debt sustainability in Niger, identifying its macroeconomic determinants and deriving implications for fiscal space. The analysis yields several key conclusions.

First, Niger's public debt is assessed as sustainable but at high risk of distress. The mechanical DSA indicators suggest a manageable debt burden, with the PV of debt-to-GDP ratio projected to decline over the medium term. However, judgment-based assessment maintains a "high risk" rating, reflecting liquidity constraints, financing limitations, and the accumulation of arrears during 2025. The improvement in the mechanical rating from high to moderate is a positive development that reflects the authorities' efforts to clear arrears and reprofile domestic debt.

Second, the key determinants of debt sustainability in Niger are real GDP growth, export performance, the primary fiscal balance, and most critically revenue mobilization. The structural revenue shortfall, with government revenues below 10 percent of GDP, represents the binding constraint on fiscal space and debt carrying capacity. This finding is consistent with the broader literature on debt sustainability in low-income countries and has important policy implications.

Third, expanding fiscal space while maintaining debt sustainability requires a multi-pronged strategy. Revenue mobilization through comprehensive tax reform is the most sustainable source of fiscal space expansion. Expenditure efficiency improvements, including the integration of cash and debt management and the strengthening of public investment management, can complement revenue measures. Concessional financing remains important but is constrained in availability.

Fourth, the sequencing of reforms matters. Strengthening revenue mobilization and expenditure efficiency should precede any significant increase in borrowing, as these measures create the fiscal capacity needed to service additional debt without compromising sustainability.

The policy implications are clear. The authorities should prioritize implementation of the tax reforms identified in recent policy documents, targeting an increase in the revenue-to-GDP ratio of 3–4 percentage points by 2028. They should continue efforts to strengthen debt management and transparency, including the integration of all government accounts into the Treasury Single Account and the publication of comprehensive debt statistics. They should maintain prudent borrowing policies, prioritizing concessional financing and adhering to the zero-ceiling on non-concessional external debt.

8. LIMITS OF THE STUDY

This study has several limitations that should be acknowledged.

First, the relatively short sample period for Niger-specific analysis limits the statistical power of time-series tests. While the panel analysis for Sub-Saharan African countries provides larger sample sizes, the generalizability of these findings to Niger specifically is constrained by the country's unique characteristics.

Second, the reliance on DSA data means that the analysis inherits any limitations in the underlying debt statistics. As noted in the DSA documentation, data on debt held by state-owned enterprises remain limited, and the coverage of domestic debt may be incomplete. These data limitations introduce uncertainty into the quantitative assessment.

Third, the econometric analysis identifies correlations rather than causal relationships. While the System-GMM estimator addresses some sources of endogeneity, the possibility of reverse causality and omitted variable bias cannot be entirely ruled out.

Fourth, the study focuses primarily on macroeconomic determinants of debt sustainability and does not fully explore political economy factors that influence fiscal policy decisions. Future research could examine how political institutions, electoral cycles, and governance quality affect debt sustainability outcomes in Niger and comparable countries.

Fifth, the projections and stress tests are based on assumptions that may not materialize. The security situation, climate shocks, and global economic conditions all introduce uncertainties that could affect debt dynamics in ways not captured by the analysis.

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10. AUTHOR CONTRIBUTIONS

The author confirms sole responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

11. COMPETING INTEREST

The author declares no competing interests.

12. FUNDING INFORMATION

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13. DATA AVAILABILITY

The data used in this study are publicly available from the sources identified in the Methodology section. IMF country reports and DSA documents for Niger are available at www.imf.org. World Bank data are available at data.worldbank.org. WAEMU and BCEAO statistics are available at www.bceao.int.

14. DISCLAIMER

The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of any institution with which the author is affiliated. The analysis is based on publicly available data and documents as of the date of writing. Debt sustainability assessments are subject to significant uncertainty, and the findings should be interpreted with appropriate caution.

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