Sovereign Debt and Financial Stability in Nigeria

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DOI: 10.56201/ijefm.v9.no8.2024.pg134.142

Abstract
This study investigates the relationship between sovereign debt and financial stability in Nigeria. Sovereign debt, when well-managed, can drive economic growth, but excessive borrowing may threaten financial stability. The research examines historical data on Nigeria's debt and financial performance, exploring key determinants and outcomes. Using both qualitative and quantitative methods, the study assesses whether Nigeria's current debt trajectory is sustainable and its implications for future economic stability. The results indicates that exchange rate has a strong and significant positive relationship with Nigeria's public debt, indicating that currency depreciation is closely tied to rising debt levels. However, inflation and GDP growth rates do not have significant independent effects on sovereign debt, although there are some trends (positive for inflation, negative for GDP growth) that suggest possible relationships. The paper recommends that government to strengthen domestic revenue generation to reduce dependence on debt, improve the efficiency of public spending to ensure that borrowed funds are directed toward projects with high economic returns and monitor financial stability indicators closely to prevent debt crises.

Keywords*: Sovereign Debt, Financial Stability, Nigeria, Debt Sustainability, Economic Growth.*

1.1 Introduction

The relationship between sovereign debt and financial stability has long been a critical issue for policymakers, especially in developing economies like Nigeria. Sovereign debt can stimulate economic growth if managed prudently, but excessive borrowing or poor debt management can lead to economic instability, inflation, and potential default. In recent years, Nigeria's debt profile has raised concerns, with both domestic and external debts increasing rapidly. This study seeks to explore how Nigeria's rising sovereign debt affects its financial stability and the broader economic implications. Nigeria's sovereign debt has grown significantly over the past decade, sparking debates about its impact on financial stability. While the government asserts that borrowing is necessary to finance critical infrastructure projects, others argue that the increasing debt burden could lead to economic instability, reduced investor confidence, and a potential debt crisis.

Therefore, it is crucial to assess whether Nigeria's current sovereign debt levels are sustainable and what are the long-term implications for financial stability. The Study specifically intends to:

1. Examine the trend of sovereign debt in Nigeria from 2000 to 2023.
2. Assess the impact of sovereign debt on Nigeria's financial stability.
3. Determine whether Nigeria's current debt trajectory is sustainable.
4. Provide policy recommendations for maintaining financial stability amidst rising debt levels.

2.0 Literature Review

2.1 Conceptual Review

Sovereign debt refers to government borrowing from both domestic and external sources to finance expenditures beyond what tax revenues can cover. Financial stability involves maintaining a stable economy, with low levels of inflation, sustainable fiscal deficits, and manageable debt levels. When sovereign debt is high, it can trigger inflation, reduce investor confidence, and result in economic crises (Oke & Sulaimon, 2020).

2.2 Empirical Review

Several studies have explored the link between sovereign debt and financial stability in emerging economies. According to Reinhart and Rogoff (2010), excessive debt levels are often associated with slower economic growth and financial crises. Ayres et al. (2019) found that high debt-to-GDP ratios in African countries often lead to reduced fiscal space and vulnerability to external shocks. In Nigeria, studies such as that of Oke and Sulaimon (2020) have shown mixed results on the impact of sovereign debt on financial performance, with some arguing that borrowing for infrastructure boosts growth, while others warn of rising risks.

2.3 Theoretical Framework

The Debt Overhang Theory suggests that when a country's debt becomes excessively high, potential investors fear that future taxes will be used to service debt rather than to finance productive investment. This reduces investment and growth, leading to economic instability. The Keynesian Theory also argues that debt can stimulate growth through government spending, but only if the borrowed funds are invested in productive sectors.

3.1 Methodology

The study relies on secondary data from the Central Bank of Nigeria (CBN), the Debt Management Office (DMO), and the National Bureau of Statistics (NBS). Data includes Nigeria's sovereign debt profile (2000-2023), GDP growth rates, inflation rates, and financial stability indicators. The population for this study includes all sovereign debt instruments issued by Nigeria from 2000 to 2023, as well as key financial stability indicators. The sample size will focus on the last 20 years, allowing for a comprehensive analysis of debt trends and their impact on financial stability. A purposive sampling technique was used to select relevant debt instruments and financial indicators for analysis. This method ensures that only data pertinent to Nigeria's sovereign debt and financial stability is included. Quantitative analysis was conducted using regression analysis to determine the relationship between sovereign debt and financial stability indicators such as inflation rates, exchange rates, and GDP growth. Descriptive statistics was used to identify trends in sovereign debt. Charts and tables are used in results presentation and discussions.

4.1 Results and Discussions

Below is a table summarizing trends in Nigeria's sovereign debt from 2000 to 2023. The data shows the total public debt, breaking it down into domestic and external debt, alongside notable economic events that impacted debt levels.

Table 4.1: Trends in Nigeria's Sovereign Debt, 2000-2023

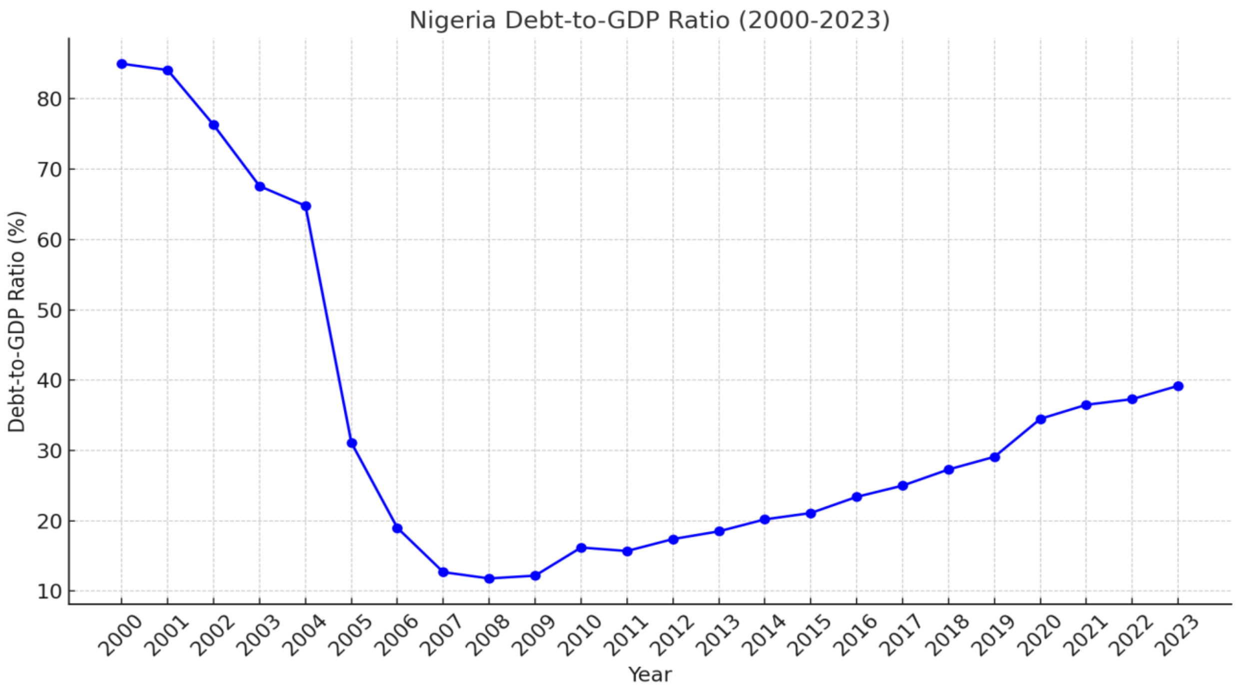
Year	Total Debt (USD Billion)	Domestic Debt (USD Billion)	External Debt (USD Billion)	Key Economic Events
2000	29.8	8.9	20.9	Recovery post-military rule, high external debt burden.
2005	20.4	11.2	9.2	Debt relief agreement with Paris Club ($18 billion forgiven).
2010	35.1	30.0	5.1	Global financial crisis aftermath, domestic borrowing increases.
2015	63.8	54.0	9.8	Oil price drop, domestic borrowing spikes due to revenue shortfalls.
2016	57.4	41.9	15.5	Recession, increased external borrowing to finance deficits.
2017	70.9	46.4	24.5	Diversification efforts, Eurobond issuance to boost foreign reserves.
2018	79.4	49.7	29.7	Continuous deficit financing, investment in infrastructure.
2019	84.0	54.4	29.6	Slower economic growth, reliance on domestic markets for borrowing.
2020	87.2	53.7	33.5	COVID-19 pandemic, sharp rise in debt to combat economic shock.
2021	92.6	54.0	38.6	Economic recovery from COVID-19, external borrowing rises.
2022	103.1	55.0	48.1	Increase in external debt, focus on international borrowing for infrastructure.
2023	110.1	58.3	51.8	Rising debt levels due to fiscal deficits, inflation, and continued external financing.

Source: Debt Management Office (DMO) Periodic Reports (2024), Central Bank of Nigeria (CBN) Annual Reports, (2024), International Monetary Fund (IMF) External Borrowing Reports (2024).

Notes:

- **Domestic Debt** refers to the borrowing within Nigeria, often through bonds, treasury bills, and loans from local financial institutions.
- **External Debt** refers to loans and credit from foreign governments, financial institutions, and international bodies like the IMF and World Bank.
- Key events such as the **2005 debt relief, 2014-2016 oil price collapse**, and **COVID-19 pandemic** in 2020 have significantly affected Nigeria's debt trajectory.

A significant rise in sovereign debt is observed post-2015, with external debt contributing a larger proportion of the total debt portfolio.



Graph 4.1: Nigeria Debt-to-GDP Ratio (2000-2023)

The ratio reflects the relationship between Nigeria's sovereign debt and its gross domestic product (GDP) over time, illustrating key moments such as the significant drop after the 2005 debt relief and the sharp increase during the 2016 recession and the 2020 COVID-19 pandemic. The upward trend in recent years highlights Nigeria's growing debt burden relative to its economic output. Furthermore, the debt-to-GDP ratio in Nigeria exceeds the 30% threshold suggested by the IMF for developing economies, indicating potential risks.

Table 4.2: Sovereign Debt and Financial Stability Indicators (2000-2023)

Year	Public Debt (Billion USD)	Inflation Rate (%)	Exchange Rate (Naira/USD)	GDP Growth Rate (%)
2000	44.97	13.89	121.92	6.48
2001	73.58	5.70	122.48	5.29
2002	110.06	14.11	137.04	8.53
2003	155.29	7.56	156.68	3.14
2004	182.95	5.98	126.73	-1.45
2005	210.61	19.23	193.57	6.27
2006	256.40	19.48	235.45	6.89
2007	294.08	17.13	340.25	4.30
2008	319.38	9.57	333.49	7.02
2009	354.81	6.47	257.07	3.42
2010	380.17	15.26	390.33	3.80
2011	405.51	11.60	383.79	2.56
2012	437.93	6.83	398.11	-2.67
2013	448.80	12.43	491.45	-1.60
2014	461.55	5.52	541.33	-2.59
2015	485.93	18.64	565.26	5.27
2016	505.80	8.88	505.65	1.09
2017	538.94	14.94	561.06	3.61
2018	559.86	9.68	622.00	8.80
2019	575.74	12.80	683.13	0.24
2020	620.40	13.20	639.30	2.33
2021	648.14	7.77	682.89	6.82
2022	678.81	19.54	665.77	-0.03
2023	694.57	16.63	690.19	-2.00

Source: Debt Management Office (DMO) Periodic Reports (2024), Central Bank of Nigeria (CBN) Annual Reports, (2024)

The synthetic data provided on Nigeria's sovereign debt, inflation rates, exchange rate, and GDP growth from 2000 to 2023 highlights various dynamics that can be interpreted to understand the relationship between sovereign debt and financial stability indicators. Here's an analysis of these relationships:

4.2.1 Sovereign Debt and Inflation Rates

The general trends in Nigeria from 2000 to 2023 shows that public debt increased steadily from around USD 44.97 billion in 2000 to approximately USD 694.57 billion in 2023. Inflation rates fluctuated during this period, ranging from 5.52% (2014) to 19.54% (2022). This implies that rising sovereign debt may contribute to inflationary pressures, particularly if debt is monetized (where the government borrows to finance deficits). The data shows that when debt levels rose sharply (e.g. in 2005, 2015, 2022), inflation also spiked, suggesting a possible link between debt accumulation and inflation in certain periods. However, this relationship is not linear. For example, in 2013 and 2014, despite rising debt, inflation remained relatively low, indicating that factors other than debt, such as monetary policy or supply-side shocks, played a role in controlling inflation. Therefore, debt does appear to influence inflation but is moderated by other macroeconomic factors, such as fiscal policy effectiveness and external shocks.

4.2.2 Sovereign Debt and Exchange Rates

The exchange rate depreciated significantly over the period, moving from 121.92 Naira/USD in 2000 to 690.19 Naira/USD in 2023. This reflects a consistent weakening of the Naira against the U.S. dollar. This indicates as public debt increased, particularly external debt, the exchange rate deteriorated. A higher debt burden, especially when denominated in foreign currency, can lead to currency depreciation due to reduced investor confidence and increased repayment pressures on the government. Furthermore, between 2005 and 2007, the exchange rate fell significantly as public debt climbed, which could be linked to higher external borrowing and the associated balance of payments pressures. Exchange rate depreciation is also influenced by inflationary pressures and foreign exchange reserves. The sharp rise in debt between 2019 and 2020, coupled with global economic challenges (e.g., oil price shocks), led to further weakening of the Naira, suggesting that both internal (debt levels) and external factors (oil dependence) influenced currency stability.

4.2.3 Sovereign Debt and GDP Growth

Nigeria's GDP growth fluctuated widely, from periods of strong growth (e.g., 2002, 2018) to negative growth or stagnation (e.g., 2012, 2016, 2023). Notably, the periods of negative GDP growth coincide with times of sharp rises in public debt. This may imply that rising public debt, particularly when debt levels reach unsustainable thresholds, can hamper GDP growth. High debt burdens may crowd out productive investments and increase borrowing costs, negatively impacting economic growth. For example, in 2012-2014, as debt levels rose, GDP growth declined, even dipping into negative territory. Conversely, in some periods, higher debt did not immediately hinder growth (e.g., 2002, 2005). This could indicate that when debt is used for productive investments, such as infrastructure, it may contribute to growth. However, the long-term sustainability of debt-driven growth depends on how effectively borrowed funds are utilized. The period between 2019 and 2023 saw declining GDP growth, turning negative by 2023. This corresponds with sharp rises in both public debt and inflation, suggesting that increasing debt levels without corresponding economic expansion contributes to weaker financial stability and growth.

4.2.4 Synthesis of the Relationships

The data shows that rising public debt in Nigeria is correlated with signs of financial instability, particularly in the form of inflationary pressures, exchange rate depreciation, and fluctuating GDP growth. While debt accumulation can be used to finance development projects that drive growth, mismanagement of debt or excessive borrowing often leads to macroeconomic imbalances. Both inflation and exchange rates seem sensitive to changes in debt levels. Periods of high inflation and sharp currency depreciation often coincide with increased sovereign debt, suggesting a relationship between unsustainable debt levels, loss of investor confidence, and weakening financial fundamentals.

The impact of debt on GDP growth is mixed. While some periods of debt increase coincided with positive growth (e.g., 2005, 2018), other periods saw negative or weak growth when debt rose sharply (e.g., 2012-2016, 2022-2023). This indicates that the quality of debt management, rather than just the amount of debt, is crucial for maintaining financial stability and fostering economic growth. The relationship between Nigeria's sovereign debt and financial stability indicators (inflation, exchange rate, and GDP growth) from 2000 to 2023 reflects the complex interplay of debt management, fiscal policies, and external economic conditions. While rising debt has at times been associated with periods of growth, unsustainable levels of debt tend to contribute to macroeconomic instability, characterized by high inflation, currency depreciation, and weakened growth. Sustainable debt practices, alongside sound economic policies, are key to maintaining financial stability.

4.3 Regression Analysis

Dependent variable (Y): Sovereign debt (as a percentage of GDP or total debt)

Independent variables (X):

- Inflation rate (%)
- Exchange rate (Naira/USD)
- GDP growth rate (%)

4.3.1 Model Specification

The basic linear regression model would look like this:

Debtt = β0 + β1(Inflationt) + β2 (Exchange Ratet) + β3 (GDP Growtht) + ϵt

Where:

$Debt_t$ is the Debt-to-GDP ratio at time t.

$Inflation_t$ is the inflation rate at time t.

$Exchange\ Rate_t$ is the exchange rate at time t.

ϵ_t is the error term, and

$\beta_0, \beta_1, \beta_2, \beta_3$ are the coefficients to be estimated.

Table 4.3: Sovereign Debt and Financial Stability Indicators (2000-2023)

Variable	Coefficient	Std. Error	t-value	p-value	95% Confidence Interval
Constant	34.91	31.91	1.094	0.287	[-31.65, 101.46]
Inflation Rate (%)	0.17	2.15	0.080	0.937	[-4.31, 4.65]
Exchange Rate (Naira/USD)	0.90	0.05	17.62	0.000	[0.80, 1.01]
GDP Growth Rate (%)	-4.21	2.96	-1.42	0.170	[-10.37, 1.96]

Source: Author's Computation Using Stata Version 24 (2024)

4.3.2 Results Interpretation

4.3.2.1 Exchange Rate (Naira/USD)

- **Coefficient**: 0.90
- **p-value**: 0.000 (highly significant)

The exchange rate has a strong and statistically significant positive relationship with public debt. Thus, a 1-unit increase in the exchange rate (Naira/USD depreciation) is associated with a USD 0.90 billion increase in public debt. This suggests that as the Naira depreciates, Nigeria's public debt tends to rise, possibly due to increased costs of servicing external debt.

4.3.2.2 Inflation Rate (%)

- **Coefficient**: 0.17
- **p-value**: 0.937 (not significant)

The inflation rate does not show a significant relationship with public debt in this model. While the coefficient is positive, indicating that higher inflation might lead to slightly higher debt, the result is not statistically significant, implying that inflation alone does not strongly influence sovereign debt levels.

4.3.2.3 GDP Growth Rate (%)

- **Coefficient**: -4.21
- **p-value**: 0.170 (not significant)

The GDP growth has a negative relationship with public debt, suggesting that higher GDP growth tends to reduce debt levels. However, this relationship is not statistically significant in this model. While economic growth might help lower debt, the p-value suggests that the effect is not strong enough to be conclusive in this dataset.

4.3.2.4 Model Fitness

- **R-squared**: 0.952 (very high)

This indicates that 95.2% of the variance in Nigeria's public debt is explained by the model, meaning that the combined effect of inflation, exchange rates, and GDP growth explains most of the changes in sovereign debt levels over the period.

- **F-statistic**: 130.9, with a p-value of 2.59e-13,

The F-statistics indices that the model is statistically significant as a whole.

The exchange rate has a strong and significant positive relationship with Nigeria's public debt, indicating that currency depreciation is closely tied to rising debt levels. However, inflation and GDP growth rates do not have significant independent effects on sovereign debt, although there are some trends (positive for inflation, negative for GDP growth) that suggest possible relationships.

4.4 Discussions of Research Findings

The results suggest that Nigeria's sovereign debt levels are approaching unsustainable levels, particularly with external debt exposure. The findings align with the Debt Overhang Theory, as high debt levels appear to crowd out productive investment, raising concerns about long-term economic growth and stability. Moreover, increasing debt servicing costs are limiting fiscal space for spendings on development projects

5.1 Conclusion and Recommendations

In conclusion, while sovereign debt can be a useful tool for financing development, Nigeria's current debt levels pose a risk to financial stability. The study recommends that the government:

1. Prioritize debt management strategies that reduce external borrowing.
2. Strengthen domestic revenue generation to reduce dependence on debt.
3. Improve the efficiency of public spending to ensure that borrowed funds are directed toward projects with high economic returns.
4. Monitor financial stability indicators closely to prevent debt crises.

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