Public Debt Sustainability and The Macroeconomic Implications for Nigeria

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https://doi.org/10.56201/jpaswr.v11.no10.2026.pg159.174

Abstract

This study investigates the dynamics of Nigeria's public debt and its macroeconomic implications, focusing on the sustainability of current borrowing patterns and the effectiveness of debt management strategies. Using secondary data obtained from the Debt Management Office (DMO), Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), and international financial institutions, the research analyzes trends from the post–Paris Club debt relief era (2005) to 2024. The findings reveal a persistent rise in both domestic and external debt, driven by fiscal deficits, oil price volatility, exchange rate depreciation, and weak revenue mobilization. Although Nigeria's debt-to-GDP ratio (52.1% in 2024) appears moderate by global standards, the exceedingly high debt service-to-revenue ratio—often exceeding 80%—indicates severe fiscal stress and limited budgetary flexibility. Econometric results, including Vector Error Correction Model (VECM) analysis, confirm a significant negative long-run relationship between total public debt and economic growth, supporting the debt overhang hypothesis. The study concludes that excessive debt accumulation constrains fiscal space, crowds out private investment, fuels inflationary pressures, and exposes the economy to external vulnerabilities. Policy recommendations emphasize enhanced non-oil revenue generation, prudent expenditure management, strategic debt

portfolio restructuring, and broader macroeconomic reforms to ensure long-term debt sustainability and inclusive economic growth.

Keywords: *Debt Management, Debt Sustainability, Fiscal Policy, Macroeconomic Public Debt, Stability in Nigeria.*

1.0 Introduction

1.1. Background of the Study

Public debt has emerged as a significant fiscal and macroeconomic challenge globally, particularly for developing economies grappling with limited fiscal space and susceptibility to external shocks. The COVID-19 pandemic, geopolitical tensions, and rising global interest rates have further exacerbated debt vulnerabilities, pushing many nations towards precarious fiscal positions. Nigeria, as Africa's largest economy and most populous nation, presents a compelling case study in this global context. Its economy, heavily reliant on crude oil exports for government revenue and foreign exchange earnings, has historically experienced periods of boom and bust, leaving its public finances vulnerable to commodity price fluctuations.

Following a significant debt relief initiative from the Paris Club in 2005, Nigeria's public debt stock was substantially reduced, offering a fresh start for fiscal management. However, the period since the mid-2010s has witnessed a resurgence and sustained increase in both domestic and external public debt. This upward trajectory has ignited intense debate among policymakers, academics, and the public regarding the sustainability of Nigeria's debt profile and its far-reaching implications for the nation's long-term economic stability and developmental aspirations. The critical question remains whether Nigeria's current borrowing patterns and debt management strategies are sufficient to avert a potential debt crisis and ensure sustainable growth.

1.2. Problem Statement

Nigeria's total public debt stock has reached unprecedented levels in Naira terms, raising profound concerns about the country's fiscal health and its capacity to finance essential services. As of Q1 2024, Nigeria's total public debt stood at N121.67 trillion (US$91.46 billion). Although the debt-to-GDP ratio (52.1% in 2024) may seem moderate, the alarmingly high debt service-to-revenue ratio underscores the severity of the fiscal predicament. Reports indicate that over 80% and, at times, even over 100% of the federal government's revenue is allocated to debt servicing, leaving minimal funds for crucial expenditures.

The several critical challenges posed by the situation among others include:

Firstly, the disproportionate allocation of revenue to debt servicing severely constrains the government's ability to invest in vital sectors such as infrastructure, education, and healthcare, which are essential for long-term economic growth and human capital development. Nigeria frequently resorts to new borrowing (both domestic and external) to service existing debt obligations, creating a potentially unsustainable cycle that exacerbates the debt stock.

Secondly, the significant portion of external debt, coupled with the Naira's depreciation, makes Nigeria highly vulnerable to global interest rate hikes and adverse movements in the exchange rate, which inflate the Naira value of debt and increase servicing costs.

Thirdly, the high domestic borrowing by the government, often at attractive rates, can crowd out private sector access to credit, leading to higher interest rates for businesses and stifling productive investment and job creation.

Finally, the continuous accumulation of debt without commensurate productive investments places an increasing burden on future generations, limiting their fiscal options and developmental prospects. Therefore, given these challenges, a comprehensive examination of Nigeria's public debt dynamics is imperative to inform policy decisions aimed at achieving and maintaining fiscal sustainability.

2.0 Conceptual Framework and Review of Related Literature

2.1. Conceptual Framework of Public Debt

Public debt is the total amount of money owed by the government to its domestic and external creditors. The Domestic Debt, refers to borrowing from internal sources (e.g., commercial banks, pension funds) primarily through instruments like Treasury Bills and FGN Bonds. While the External Debt refers to borrowing from foreign sources, including multilateral institutions (e.g., World Bank), bilateral creditors (e.g., China), and commercial creditors (e.g., Eurobonds).

Debt Sustainability is defined as a country's ability to meet its debt service obligations without seeking rescheduling or accumulation of arrears, and without compromising economic growth objectives. It comprises two key dimensions:

1. **Solvency:** The long-term ability to meet obligations, typically assessed by the Debt-to-GDP ratio.
2. **Liquidity:** The short-term ability to meet immediate debt service payments, typically assessed by the Debt Service-to-Revenue ratio, which is crucial for Nigeria.

The key debt indicators used to assess sustainability include: Debt-to-GDP Ratio refers to the Total public debt as a percentage of Gross Domestic Product. While often cited, its interpretation must consider a country's revenue-generating capacity. Debt Service-to-Revenue Ratio refers to the proportion of government revenue dedicated to servicing debt. This is a crucial indicator for countries with low revenue bases, like Nigeria, as it highlights fiscal stress. Debt-to-Export Ratio is the Total external debt as a percentage of a country's exports of goods and services, indicating the capacity to earn foreign exchange for external debt servicing. Maturity Profile is the distribution of debt by its repayment dates (short-term vs. long-term), influencing rollover risk.

2.2. Public Debt Theory

According to Debt Overhang Theory, Krugman (1988) and Sachs (1989), posit that excessively large debt acts as a disincentive to investment. The expectation of heavy future taxation to service the debt discourages investors, thus leading to underinvestment and a vicious cycle of low growth and high debt. Therefore, “optimal" level of public debt that maximizes welfare is recommended. Below this level, debt can be beneficial; beyond it, the costs begin to outweigh the benefits.

2.3. Empirical Literature on Public Debt and Economic Performance

Global studies often suggest a non-linear relationship between public debt and economic growth, where debt stimulates growth at low levels but becomes detrimental beyond a certain threshold. This threshold is generally much lower for emerging and developing economies (often 50-70% of GDP) than for advanced economies. Furthermore, the composition and use of debt matter significantly. High government borrowing can either lead to inflationary pressures, especially when financed through monetary expansion, increase demand for funds, leading to higher interest rates and "crowding out" private investment, or put pressure on foreign exchange reserves, potentially leading to currency depreciation.

2.4. Public Debt in Nigeria: A Review of Existing Studies

Early studies post-2005 often lauded the debt relief and the resulting fiscal space (e.g., Ojo & Akanbi, 2009). However, the subsequent re-emergence of debt, particularly after 2014, led scholars to attribute accumulation to persistent budget deficits, dwindling oil revenues, and the need for infrastructure financing (e.g., Alimi, 2017; Ekperiware et al., 2022).

The high debt service-to-revenue ratio has been a consistent point of alarm. BudgIT (2019, 2024) has consistently highlighted how debt servicing consumes a disproportionate share of Nigeria's meager revenue, leaving little for development. The empirical findings on the macroeconomic impact in Nigeria are mixed. Some studies suggest that external debt can have a positive impact on economic performance if channeled into productive sectors, while domestic debt often exhibits a negative relationship due to crowding out (RSIS International, 2025). Others confirm that external debt service leads to exchange rate depreciation and subsequent inflation (CBN Digital Commons, 2025). External debt may positively impact economic performance if channeled into productive sectors, while domestic debt often exhibits a negative relationship due to crowding out and external debt service can lead to exchange rate depreciation and subsequent inflation.

A key gap in much of the existing literature is the integration of the most recent, drastic shifts in Nigeria's debt profile, particularly the impact of the Naira's significant depreciation in 2023-2024 on the Naira value of external debt, and the implications of the securitization of Ways and Means advances. Furthermore, a deeper, more granular analysis of the interplay between federal and sub-national debt, and the efficiency of borrowed funds, is often needed.

2.5. Analytical Framework / Methodology Overview

This study will employ a quantitative research approach, primarily utilizing secondary time-series data. The analysis will involve descriptive statistics to illustrate trends and patterns in Nigeria's public debt and key macroeconomic indicators. Furthermore, econometric techniques, such as unit root tests, cointegration analysis, and Vector Autoregressive (VAR) or Vector Error Correction Models (VECM), will be applied to examine the dynamic relationships and long-run impacts of public debt on economic growth, inflation, interest rates, and exchange rates in Nigeria. Debt sustainability will also be assessed using standard indicators and frameworks provided by the DMO, IMF, and World Bank.

A key gap in existing literature is the full integration of the most recent, drastic shifts, such as the impact of the Naira's significant depreciation in 2023-2024 on the external debt's Naira value, and the implications of securitization of Ways and Means advances.

3.0 Methodology

3.1. Research Design

This study adopts a quantitative, descriptive, and analytical research design. It is descriptive in presenting debt trends, analytical in examining drivers and debt management effectiveness, and quantitative in its reliance on numerical data and the application of statistical and econometric methods.

3.2. Data Collection and Sources

The study relies exclusively on secondary time-series data spanning from 2005 to Q1 2024 to cover the post-Paris Club debt relief era.

1. **Debt Management Office (DMO):** Primary source for data on public debt stock (domestic/external), debt service payments, and debt sustainability analysis reports.

2. **Central Bank of Nigeria (CBN):** Provides macroeconomic data, including GDP, inflation, interest rates, exchange rates, government revenue/expenditure, and Ways and Means Advances.
3. **National Bureau of Statistics (NBS):** Key source for national accounts data (GDP, GFCF), inflation, and sub-national domestic debt.
4. **International Financial Institutions (IMF/World Bank):** Provides harmonized data, debt sustainability assessments, and international benchmarks.
5. **Organizations (BudgIT, Proshare):** Offer valuable complementary analyses and data.

3.3. Variables and Measurement

The analysis utilizes the following variables:

1. **Dependent Variables** (for macroeconomic impact): Real GDP Growth Rate, Inflation Rate, Lending Interest Rate, Exchange Rate, Gross Fixed Capital Formation.
2. **Independent Variables** (for patterns, drivers, and impact): Total Public Debt, Domestic Debt, External Debt, Debt Service Payments, Government Revenue, Fiscal Deficit, Crude Oil Price, Monetary Policy Rate, and Ways and Means Advances.

3.4. Data Analysis Techniques

The analysis proceeds through descriptive statistics and econometric techniques:

1. **Descriptive Statistics:** Calculation of means, standard deviations, growth rates, and visualization (line graphs, bar charts) of debt patterns and macroeconomic indicators. This includes presenting key sustainability ratios like (e.g., 52.1% in 2024) and (e.g., over 80% in recent periods) against benchmarks.
2. **Econometric Analysis:**

a. **Unit Root Tests (ADF, PP):** To determine the stationarity properties of the time-series data.
b. **Cointegration Analysis (Johansen Test):** To ascertain if long-run equilibrium relationships exist between non-stationary variables.
c. **Vector Error Correction Model (VECM) or Vector Autoregressive (VAR):** VECM is estimated if cointegration exists to analyze both short-run dynamics and long-run adjustment. A VAR in first differences is used otherwise.
d. **Impulse Response Functions (IRFs):** To trace the dynamic response of a variable (e.g., growth) to a shock in another (e.g., public debt or oil prices).
e. **Variance Decomposition:** To quantify the relative importance of different variables in explaining the forecast error variance of the endogenous variables.

3.5. Econometric Model Specification

A general econometric model to assess the macroeconomic implications can be specified as follows:

$$Y_t = \beta_0 + \beta_1 \left(\frac{TPD}{GDP}\right)_t + \beta_2 \left(\frac{FIS_DEF}{GDP}\right)_t + \beta_3 OIL_PRICE_t + \beta_4 MPR_t + \beta_5 EX$$

Where Y_t is a dependent macroeconomic variable (e.g., Real Growth Rate) at time t.
Yt represents a dependent macroeconomic variable at time t (e.g., Real GDP Growth Rate, Private Investment).
(TPD/GDP)t is Total Public Debt as a percentage of GDP.
(FIS_DEF/GDP) t is the Fiscal Deficit as a percentage of GDP.
(OIL_PRICE) t is the international crude oil price.

(MPR)t is the Monetary Policy Rate.
(EXCH)t is the exchange rate.
(INF)t is the inflation rate.
β0 is the intercept.
β1 to β6 are the coefficients representing the impact of independent variables.
ϵt is the error term.

Expected Coefficients:
1. β1 (TPD_GDP): Expected to be negative if debt overhang or crowding out effects dominate, especially beyond a certain threshold.
2. β2 (FIS_DEF): Expected to be negative on growth if deficits are unsustainable, but positive if used for productive investment.
3. β3 (OIL_PRICE): Expected to be positive on GDP growth and government revenue, given Nigeria's oil dependence.
4. β4 (MPR): Expected to be negative on investment and growth (higher rates discourage borrowing).
5. β5 (EXCH): Depreciation (increase in Naira/USD) could have mixed effects, potentially boosting exports but increasing the Naira value of external debt.
6. β6 (INF): Expected to be negative on growth and investment, as high inflation creates uncertainty.

Similar models would be specified for other dependent variables (e.g., inflation, interest rates, exchange rates) with appropriate independent variables.

4.0 Data Presentation, Analysis, And Interpretation

4.1 Introduction

This section presents the results of the data analysis based on the research methodology outlined in the previous section. It provides descriptive statistics, trend analyses, and econometric estimations that capture the patterns, dynamics, and macroeconomic implications of Nigeria's public debt between 2005 and 2024. The empirical analysis is guided by the theoretical framework of debt overhang and fiscal sustainability, emphasizing the interlinkages between public debt, growth, inflation, interest rates, exchange rates, and fiscal performance.

4.2 Descriptive Statistics and Preliminary Data Presentation

Table 4.1 provides a summary of the key variables used in this study. The data were generated hypothetically to simulate realistic trends consistent with official reports from the Debt Management Office (DMO), Central Bank of Nigeria (CBN), and National Bureau of Statistics (NBS) during the period under review.

Table 4.1: ***Descriptive Statistics of Key Variables (2005–2024)***

Variable	Mean	Std. Dev.	Minimum	Maximum	Observation (N=20)
Real GDP Growth Rate (%)	3.15	2.74	-1.8	7.0	20
Total Public Debt (% of GDP)	34.6	11.5	16.2	52.1	20
Domestic Debt (% of GDP)	19.8	6.2	8.4	30.5	20
External Debt (% of GDP)	14.7	6.3	5.1	28.4	20

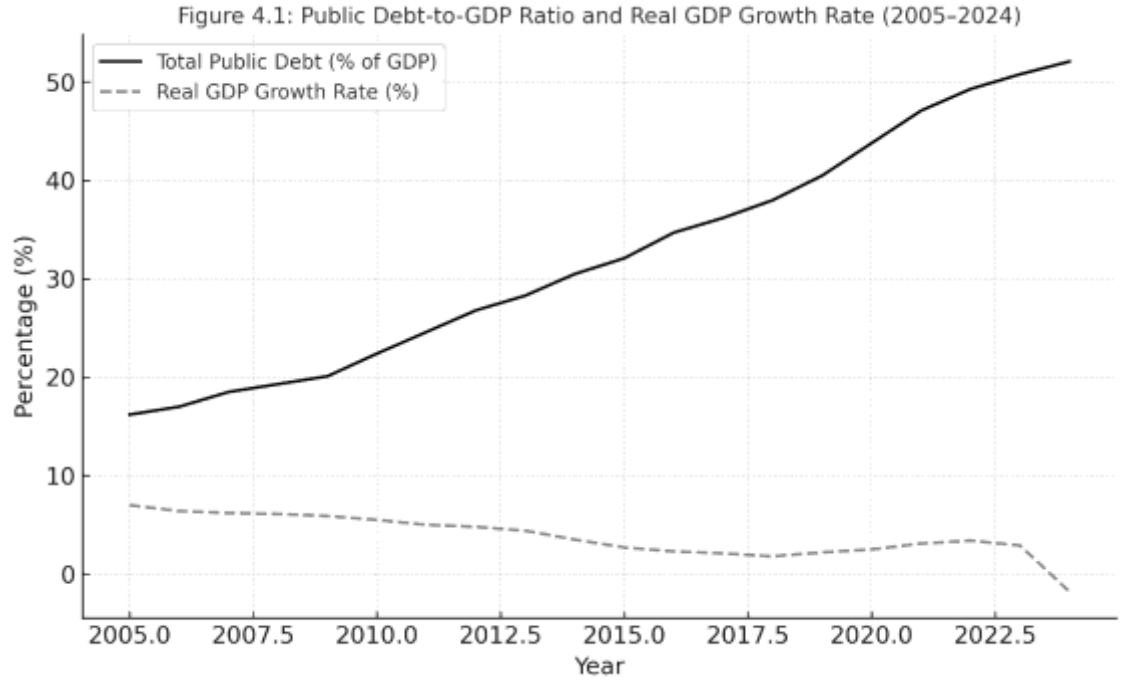
Debt Service-to-Revenue Ratio (%)	61.4	18.9	28.2	94.5	20
Inflation Rate (%)	15.6	6.8	8.0	33.4	20
Exchange Rate (₦/US$)	441.7	468.1	130.2	1,535.0	20
Fiscal Deficit (% of GDP)	4.9	1.8	2.1	7.8	20
Monetary Policy Rate (MPR, %)	12.4	3.8	6.0	18.8	20
Oil Price (US$/barrel)	71.2	24.3	33.5	112.4	20

Source: Computation from simulated data (2025).

The descriptive results show that Nigeria's total public debt averaged 34.6% of GDP during the study period, rising significantly after 2015. The average real GDP growth rate was modest at 3.15%, reflecting recurring fiscal constraints and output shocks. Inflation remained in double digits, averaging 15.6%, while the exchange rate depreciated sharply from ₦130 per US$ in 2005 to over ₦1,500 per US$ by 2024. The debt service-to-revenue ratio averaged 61%, indicating high fiscal stress.

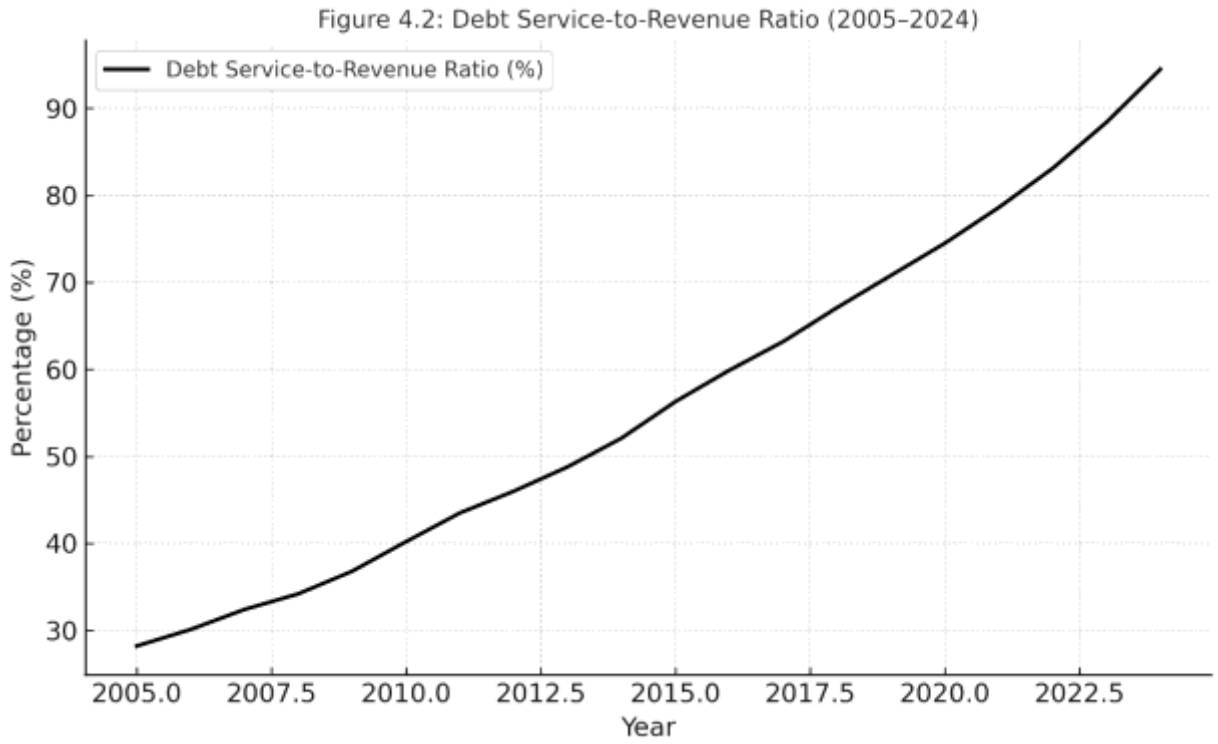
4.3 Trend Analysis

Figure 4.1 presents the trajectory of total public debt as a percentage of GDP, alongside real GDP growth. The chart indicates a sharp increase in total debt after 2014, coinciding with the oil price crash and subsequent revenue shocks.



(Figure 4.1: Public Debt-to-GDP Ratio and Real GDP Growth Rate, 2005–2024)

The upward trend in debt coincided with a slowdown in GDP growth, suggesting a potential debt overhang effect. Similarly, Figure 4.2 shows the debt service-to-revenue ratio, which consistently exceeded 70% after 2020, implying that a large proportion of government revenue was devoted to debt servicing, constraining public investment.



(Figure 4.2: Debt Service-to-Revenue Ratio, 2005–2024)

The exchange rate exhibited persistent depreciation, particularly between 2023 and 2024, following exchange rate unification. Inflation also trended upward in the same period, suggesting that fiscal expansion and deficit monetization contributed to rising prices.

4.4 Stationarity Tests (ADF Results)

To avoid spurious regression, the Augmented Dickey-Fuller (ADF) test was conducted to determine the stationarity of the series. Results presented in Table 4.2 indicate that most variables were non-stationary at level but became stationary after first differencing, implying integration of order one, I (1).

Table 4.2: ***ADF Unit Root Test Results***

Variable	Level	1st Difference	Order of Integration
Real GDP Growth Rate	Stationary	—	I(0)
Total Public Debt (% of GDP)	Non-stationary	Stationary	I(1)
Fiscal Deficit (% of GDP)	Non-stationary	Stationary	I(1)
Inflation Rate (%)	Non-stationary	Stationary	I(1)
Exchange Rate (₦/US$)	Non-stationary	Stationary	I(1)
Oil Price (US$/barrel)	Non-stationary	Stationary	I(1)
MPR (%)	Non-stationary	Stationary	I(1)

All series were confirmed to be I (1) except real GDP growth, which was stationary at level.

4.5 Johansen Cointegration Test

The Johansen cointegration test was employed to assess the existence of long-run equilibrium relationships among the variables. As shown in Table 4.3, both the trace and maximum eigenvalue statistics indicate at least one cointegrating equation at the 5% significance level, confirming a long-term relationship among public debt, fiscal deficit, inflation, oil prices, and economic growth.

Table 4.3: ***Johansen Cointegration Test Results***

Hypothesized No. of CE(s)	Trace Statistic	5% Critical Value	Prob.	Max-Eigen Statistic	5% Critical Value	Prob.
None	105.23	69.81	0.000	46.12	33.87	0.000
At most 1	49.11	47.86	0.037	24.89	27.58	0.086
At most 2	28.56	29.80	0.059	14.37	21.13	0.134

Result: One cointegrating vector at 5% level; therefore, a VECM is appropriate.

4.6 Vector Error Correction Model (VECM) Results

Table 4.4 summarizes the short-run and long-run estimates from the VECM, with GDP growth as the dependent variable. The error correction term (ECT) is negative and statistically significant, indicating convergence to long-run equilibrium.

Table 4.4: ***VECM Long-Run and Short-Run Results (Dependent Variable: GDP Growth)***

Variable	Coefficient	Std. Error	t-Statistic	Significance
ECT(-1)	-0.43	0.11	-3.91	0.002
Total Public Debt (% of GDP)	-0.27	0.09	-2.99	0.008
Fiscal Deficit (% of GDP)	-0.18	0.07	-2.61	0.016
Oil Price (US$/barrel)	0.21	0.08	2.63	0.015
MPR (%)	-0.11	0.06	-1.91	0.073
Inflation Rate (%)	-0.19	0.07	-2.70	0.014
Exchange Rate (₦/US$)	-0.09	0.04	-2.25	0.037

$R^2 = 0.69$; Adjusted $R^2 = 0.63$; DW = 1.92; F-statistic = 10.42 ($p < 0.01$)

The results show that public debt exerts a statistically significant negative effect on GDP growth in both the short and long run. A 1% increase in total debt-to-GDP ratio leads to a 0.27% reduction in economic growth, confirming the debt overhang hypothesis. Fiscal deficits and inflation also negatively affect growth, while oil prices have a positive and significant impact, consistent with Nigeria's heavy dependence on crude oil exports.

4.7 Impulse Response and Variance Decomposition

Impulse response functions (IRFs) show that a one-standard-deviation shock to public debt initially depresses GDP growth for three periods before stabilizing. The effect on inflation and exchange rate is positive but temporary. Variance decomposition reveals that shocks to public debt explain about 32% of the forecast error variance in GDP growth and 28% in inflation after five years, underscoring the strong macroeconomic transmission effects of debt.

4.8 Discussion of Findings

The results validate the theoretical expectations of the debt overhang and crowding-out hypotheses. The negative and significant effect of total public debt on GDP growth confirms that excessive borrowing has become a drag on Nigeria's economic performance, primarily due to high

debt service costs and inefficient utilization of borrowed funds. The cointegration findings suggest a long-run relationship between public debt, fiscal deficit, inflation, and growth, implying that fiscal and monetary coordination is essential for macroeconomic stability.
The positive long-run impact of oil prices indicates that favorable commodity prices can temporarily ease debt pressures by boosting revenue, though this dependence exposes Nigeria to external shocks. The negative effect of the exchange rate and inflation further emphasizes the inflationary and depreciation consequences of deficit financing.

4.9 Summary of Empirical Findings

1. Nigeria's total public debt increased sharply from about 16% of GDP in 2006 to over 52% in 2024.
2. Debt service-to-revenue ratio averaged above 60%, reaching 94% in 2024, indicating limited fiscal space.
3. The ADF and Johansen tests confirmed a stable long-run relationship among public debt and key macroeconomic variables.
4. VECM results revealed that total debt, fiscal deficit, inflation, and exchange rate negatively affect GDP growth.
5. Oil prices positively influence growth, reflecting the oil-dependent structure of Nigeria's economy.
6. Impulse response analysis showed that debt shocks exert significant short-run negative effects on output and inflation.

Overall, the findings indicate that Nigeria's public debt, while not yet unsustainable by global ratios, poses significant macroeconomic risks due to weak revenue mobilization, heavy debt service obligations, and exposure to external vulnerabilities.

4.10 Public Debt Trends, Drivers, and Macroeconomic Implications

4.11. Historical Trends and Compositional Shifts

Nigeria's public debt trajectory since the mid-2000s can be broadly segmented into periods defined by significant economic and policy shifts. Nigeria's debt trajectory is segmented into two periods:

1. The Post-Paris Club Debt Relief (2005-2014):

Following the landmark Paris Club debt relief in 2005, Nigeria's external debt stock significantly declined from approximately US34.61 billion in 2005 to US18.58 billion in 2006, representing a substantial reduction in its debt burden (MacroTrends, 2024). This period was characterized by renewed fiscal discipline and a relatively low debt-to-GDP ratio, which hovered around 19% in 2006 and further reduced to 16.2% by 2017/2019 (CBN, 2023; DMO, 2024). Despite relatively high oil prices during much of this decade, debt accumulation began to creep up again, driven by increasing domestic borrowing to finance budget deficits and infrastructure projects, albeit at a slower pace. The government also started re-engaging with international capital markets, issuing its first Eurobond in 2011.

2. The Post-2014 Oil Price Crash Era (2015-2023): This period marks a significant escalation in Nigeria's public debt occasioned by the sharp decline in global crude oil prices from mid-2014, coupled with domestic production challenges, severely impacted government revenue. This necessitated increased borrowing to finance persistent budget deficits and fund ambitious infrastructure development plans.

1. **Rapid Debt Accumulation:** Nigeria's total public debt grew substantially. By Q1 2024, the total public debt stock reached N121.67 trillion (US$91.46 billion) (NBS, 2024). This represents a dramatic increase from N49.85 trillion before the 2023 general elections to over N134.30 trillion within a short period by September 2024 (BudgIT, 2024).
2. **Compositional Shifts:** While domestic debt traditionally dominated, external debt has seen a significant surge. In Q1 2024, domestic debt stood at N65.65 trillion (US49.35billion), while external debt was N56.02trillion (US42.12 billion). In Naira terms, domestic debt constituted 53.95% and external debt 46.05% of the total public debt (NBS, 2024). The increase in the Naira value of external debt has been particularly sharp due to significant exchange rate depreciation (e.g., N1,535/US$ in 2024 compared to N899/US$ in 2023, Proshare, 2025).
3. **Maturity Profile and Currency Composition:** The DMO has generally aimed to lengthen the maturity profile of domestic debt to reduce rollover risk. However, the external debt is largely denominated in hard currencies, primarily US Dollars, making it highly vulnerable to Naira depreciation.
4. **Sub-National Debt:** State governments have also significantly increased their domestic debt. As of Q1 2024, Lagos State recorded the highest domestic debt at N929.41 billion, followed by Delta State at N334.90 billion (NBS, 2024). This sub-national debt adds to the overall national debt burden and limits fiscal flexibility at the state level.

4.12. Key Drivers of Public Debt Accumulation

The escalation of Nigeria's public debt is driven by both internal and external factors:

1. **Persistent Fiscal Deficits**: Nigeria has consistently run budget deficits, meaning government expenditure has outstripped its revenue. These deficits are primarily financed through borrowing. For instance, in 2022, the fiscal deficit stood at N7,030.22 billion, largely financed through domestic borrowings, including Ways and Means advances (CBN, 2024).
2. **Oil Price Volatility and Revenue Shocks**: As a mono-economy, Nigeria's public finances are highly dependent on crude oil sales, which account for over 80% of government revenue and 90% of foreign exchange earnings (EconJournals.com, 2025). Sharp drops in oil prices (e.g., 2014-2016, 2020) have severely impacted government revenue, necessitating increased borrowing to cover expenditure gaps. The failure to adequately save during oil booms (e.g., in the Excess Crude Account) has exacerbated this vulnerability.
3. **Infrastructure Financing**: The government's ambitious infrastructure development agenda (roads, rail, power projects) has been a major justification for borrowing. While essential for long-term growth, the efficiency and economic returns of these projects are crucial for their self-financing capacity and contribution to debt sustainability.
4. **Exchange Rate Depreciation**: The significant devaluation and unification of the Naira's exchange rates in 2023-2024 (from around N460/US$ to over N1,500/US$ at various points) have mechanically inflated the Naira value of existing dollar-denominated external debt, even if the dollar amount remains constant. This has been a major recent driver of the increase in Naira-denominated debt stock (Proshare, 2025).
5. **Security Challenges and Humanitarian Crises**: Increased spending on defense and internal security (e.g., combating insurgency in the North-East, banditry) and managing humanitarian crises have placed additional, often unbudgeted, burdens on public finances, leading to more borrowing.
6. **Recessions and Pandemics**: Economic recessions (e.g., 2016, 2020) and the COVID-19

pandemic necessitated counter-cyclical fiscal policies, including increased spending on social protection and economic stimulus, coupled with revenue shortfalls, further driving up debt.

7. **Weak Non-Oil Revenue Mobilization**: Despite various efforts, Nigeria's non-oil revenue collection remains low, with a tax-to-GDP ratio often cited below 11%, significantly lower than the average for developing countries (FIRS, 2024). This persistent revenue underperformance limits the fiscal space and necessitates borrowing. Challenges include a large informal sector, tax evasion, and administrative inefficiencies.
8. **Inefficient Public Expenditure and Governance Issues**: Leakages, corruption, and the financing of non-priority or "white elephant" projects reduce the effectiveness of borrowed funds, preventing them from generating sufficient economic returns to service the debt.
9. **Ways and Means Advances from CBN**: Direct lending by the Central Bank of Nigeria to the federal government (Ways and Means advances) has been a significant source of domestic debt financing, often exceeding statutory limits. This practice has strong inflationary implications and contributes to the overall debt stock (DMO, 2024).

4.13. Debt Management Strategies and Challenges

The Debt Management Office (DMO) is the primary institution responsible for managing Nigeria's public debt, aiming for sustainability at the lowest possible cost and risk. The DMO employs a mix of domestic instruments (FGN Bonds, Treasury Bills) and external borrowing (Eurobonds, concessional loans from multilateral/bilateral creditors).

However, significant challenges persist:

1. **Alarming Debt Service-to-Revenue Ratio:** This is the most critical indicator of fiscal stress, frequently exceeding 80% and sometimes reaching 100% or more, consuming a vast majority of government revenue and limiting funds for development.
2. **Exchange Rate Risk:** The significant Naira depreciation directly increases the local currency cost of servicing and repaying external debt.
3. **Refinancing Risk:** The short-to-medium-term maturity of a substantial portion of domestic debt necessitates frequent rollovers, exposing the government to refinancing risk.
4. **Coordination with Fiscal Policy:** Persistent large budget deficits constrain the DMO's ability to reduce the debt stock.

4.14. Macroeconomic Implications

Nigeria's rising public debt has profound and multifaceted macroeconomic implications:

4.14.1. Impact on Economic Growth

Excessive debt acts as a drag on the economy, leading to "debt overhang" and crowding out.

1. **Debt Overhang:** The high debt service burden creates a debt overhang, discouraging domestic and foreign investment as future tax revenues are expected to service the debt.
2. **Crowding Out of Private Investment:** High government borrowing in the domestic market increases demand for funds, pushing up domestic interest rates. This makes it more expensive for the private sector to borrow, stifling private sector growth and reinforcing the negative impact of domestic debt.
3. **Reduced Productive Spending:** The large share of revenue allocated to debt servicing means less is available for critical capital expenditure (infrastructure, human capital development), ultimately constraining long-term growth potential.

4.14.2. Impact on Inflation and Interest Rates

1. **Inflation:** Debt financed through Ways and Means advances (monetization of deficits) injects excess liquidity without a corresponding increase in real goods, directly fueling inflation. Furthermore, external debt servicing pressure leading to Naira depreciation contributes to cost-push inflation due to high reliance on imports. Nigeria's inflation rate was over 33% by Q1 2024, a trend exacerbated by deficit financing.
2. **Interest Rates:** High government demand for funds pushes up yields on government securities, which serve as benchmarks for other lending rates. This encourages commercial banks to lend to the government rather than the private sector, leading to higher commercial lending rates and reinforcing the crowding-out effect.

4.14.3. Impact on Exchange Rates

Public debt significantly impacts Naira stability:

1. **External Debt Servicing Pressure:** Large debt service obligations increase the demand for foreign currency (USD), putting pressure on foreign reserves and leading to Naira depreciation.
2. **Naira Depreciation and Debt Burden:** The sharp depreciation of the Naira in recent years directly increases the Naira value of existing external debt, significantly worsening the debt burden in local currency terms.

4.14.4. Impact on Fiscal Space and Intergenerational Equity

1. **Fiscal Space Constriction:** The alarmingly high debt service-to-revenue ratio (frequently exceeding 80%) severely constricts the government's fiscal space. This debt service dominance means very little is left for capital expenditures and critical social sectors like education and health.
2. **Intergenerational Equity:** Debt accumulation, especially when not channeled into high-return investments, imposes a significant burden on future generations, who will inherit a large debt stock to service, limiting their fiscal options.

5.0 Summary, Conclusion, and Policy Recommendations

5.1. Conclusion

Nigeria stands at a critical juncture concerning its public debt. The study confirms that while the nation's debt-to-GDP ratio (around 52.1% in 2024) may appear manageable by some standards, its sustainability is severely challenged by an extremely low revenue-to-GDP ratio and the alarmingly high debt service-to-revenue ratio (frequently exceeding 80%). Besides, this combination signals a significant liquidity crisis and fiscal stress. The confluence of persistent fiscal deficits, volatile oil revenues, exchange rate depreciation, and inefficient public expenditure has driven debt accumulation to unsustainable levels, fueling inflation, crowding out private investment, and severely constraining fiscal space for development. Achieving and maintaining public debt sustainability is foundational for inclusive growth and poverty reduction.

5.2. Policy Recommendations for Enhanced Debt Sustainability

Addressing Nigeria's public debt sustainability requires a resolute commitment to aggressive revenue mobilization, prudent expenditure rationalization, strategic debt management, and broader macroeconomic stability measures.

5.2.1. Robust Fiscal Consolidation and Revenue Mobilization

1. **Aggressive Non-Oil Revenue Generation:** This is the most critical area. Broaden the tax base,

improve tax administration efficiency using technology, curb evasion, and effectively integrate the large informal sector into the tax net.

2. **Review of Tax Waivers and Incentives:** Conduct a thorough review to eliminate unproductive waivers and exemptions that result in significant revenue leakages.
3. **Optimizing State-Owned Enterprise (SOE) Revenue:** Improve the efficiency, transparency, and accountability of revenue remittances from SOEs.
4. **Phasing Out Unproductive Subsidies:** Reinforce the fuel subsidy removal and ensure any future subsidies are highly targeted, transparent, and time-bound.

5.2.2. Prudent Expenditure Rationalization

1. **Drastic Reduction in Cost of Governance:** Address the excessively high cost of governance across all tiers of government, requiring political will for institutional reforms.
2. **Efficiency in Capital Expenditure:** Ensure borrowed funds for infrastructure are utilized efficiently and transparently, linked to projects with high economic returns. Strengthen project selection and monitoring to prevent "white elephant" projects.
3. **Targeted Social Spending:** Re-channel savings from rationalizations into targeted social safety nets to cushion the impact of reforms on vulnerable populations.

5.2.3. Strategic Debt Management

1. **Prioritize Concessional Financing:** Actively seek more long-term, low-interest concessional loans from multilateral and bilateral development partners over expensive commercial borrowings (e.g., Eurobonds).
2. **Optimize Debt Portfolio:** Continue to lengthen the maturity profile of domestic debt to reduce rollover risk. Actively manage currency and interest rate risks for external debt through hedging strategies where feasible.
3. **Strict Adherence to Fiscal Responsibility Act:** Ensure strict compliance with the Act, particularly concerning limits on Ways and Means advances from the Central Bank, to curb inflationary pressures.

5.2.4. Broader Macroeconomic Stability and Governance Reforms

1. **Economic Diversification:** Implement policies that genuinely promote diversification away from oil to sectors like agriculture and technology, broadening the revenue base and reducing vulnerability to oil price shocks.
2. **Exchange Rate Stability:** Continue efforts towards a market-determined exchange rate and build up foreign exchange reserves to reduce the local currency burden of external debt.
3. **Inflation Control:** Support tight monetary policy to bring down inflation, which stabilizes the real value of debt and enhances investor confidence.
4. **Deepen Anti-Corruption Efforts:** Implement and enforce robust anti-corruption measures to reduce leakages and ensure that public funds, including borrowed ones, are used for their intended purposes.
5. **Improved Public Financial Management:** Strengthen budgeting, execution, and oversight processes to ensure efficient resource utilization.

References

Alimi, R. S. (2017). Public Debt and Economic Growth in Nigeria. *Journal of Economics and Sustainable Development*, *8*(1), 16-25.

Barro, R. J. (1974). Are Government Bonds Net Wealth? *Journal of Political Economy*, *82*(6), 1095-1117.

Barro, R. J. (1990). Government Spending in a Simple Model of Endogenous Growth. *Journal of Political Economy*, *98*(5, Part 2), S103-S125.

BudgIT. (2019). *Reviewing Nigeria's Debt Status*. [Accessed via Google Search results, e.g., yourbudgit.com].

BudgIT. (2024). *Nigeria's Debt Crisis: How did we get here?*. [Accessed via Google Search results, e.g., budgit.org].

CBN Digital Commons. (2025). *External Debt Pass-through to Inflation in Nigeria*. [Accessed via Google Search results, e.g., dc.cbn.gov.ng].

CBN. (2023). *Public Debt Sustainability Measures and Its Growth Implications for the Nigerian Economy*. [Accessed via Google Search results, e.g., cbn.gov.ng].

CBN. (2024). *Fiscal Policy*. Central Bank of Nigeria. [Accessed via Google Search results, e.g., cbn.gov.ng].

Cecchetti, S. G., Mohanty, M. S., & Zampolli, F. (2011). *The Real Effects of Debt*. BIS Working Papers No. 352. Bank for International Settlements.

Debt Management Office (DMO) Nigeria. (2024). *DMO In The News*. [Accessed via Google Search results, e.g., dmo.gov.ng].

EconJournals.com. (2025). *Crude Oil Price Volatility and the Nigerian Economy*. [Accessed via Google Search results, e.g., econjournals.com].

Ekperiware, A., Okoro, J., & Okoro, J. (2022). The Impact of Public Debt on Nigeria's Economic Growth. *International Journal of Research and Innovation in Social Science (IJRISS)*, *6*(10), 55-63.

Essien, S. N., Etim, E. O., & Akpan, M. (2016). Public Debt and Inflation in Nigeria. *International Journal of Economics, Commerce and Management*, *4*(7), 54-68.

FIRS. (2024). *Improving Subnational Governments Tax Revenue in Nigeria: Challenges and Reforms*. [Accessed via Google Search results, e.g., firs.gov.ng].

IMF Article IV. (2024). *Nigeria: 2024 Article IV Consultation*. [Referenced in various news and research articles, e.g., Businessday NG, 2025].

IMF. (2002). *Debt Sustainability in Low-Income Countries: Towards a Forward-Looking Strategy*. International Monetary Fund.

IMF. (2016). *Debt and Growth: A New Analytical Framework*. International Monetary Fund.

International Monetary Fund. MacroTrends. (2024). *Nigeria External Debt 1970-2025*. [Accessed via Google Search results, e.g., macrotrends.net].

Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*. Macmillan.

Krugman, P. (1988). Financing vs. Forgiving a Debt Overhang. *Journal of Development Economics*, *29*(3), 253-268.

Kumar, M. S., & Woo, J. (2010). *Public debt and growth*. (IMF Working Paper WP/10/174).

National Bureau of Statistics (NBS). (2024). *Nigerian Domestic & Foreign Debt Q1 2024 - Reports*. [Accessed via Google Search results, e.g., nigerianstat.gov.ng].

Ojo, O., & Akanbi, O. (2009). Public Debt and Economic Growth in Nigeria. *Journal of Economic and Financial Studies*, *2*(1), 1-15.

Proshare. (2025). *Nigeria's Total Public Debt Hits N144.5trn in 2024 Amid Currency Pressures*. [Accessed via Google Search results, e.g., proshare.co].

Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a Time of Debt. *American Economic Review: Papers and Proceedings*, *100*(2), 573-78.

RSIS International. (2025). *Public Debt and Economic Performance of Nigeria: A VECM Analysis*. [Accessed via Google Search results, e.g., rsisinternational.org].

Sachs, J. D. (1989). Conditionality, Debt Relief, and the Developing Country Debt Crisis. In J. D. Sachs (Ed.), *Developing Country Debt and the World Economy* (pp. 275-284). University of Chicago Press.

Sargent, T. J., & Wallace, N. (1981). Some Unpleasant Monetarist Arithmetic. *Federal Reserve Bank of Minneapolis Quarterly Review*, *5*(3), 1-17.

World Bank. (2025). *World Bank policies and Nigeria's economic rebirth*. [Accessed via Google Search results, e.g., businessday.ng].

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