

**IMPACT OF GOVERNMENT BUDGET ON EXTERNAL DEBT: LESSONS FOR
FINANCIAL LITERACY AND EDUCATION IN NIGERIA**

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ABSTRACT

This study investigates the relationship between government budgetary allocations and external debt in Nigeria, focusing on how recurrent and capital expenditure patterns influence external debt accumulation and debt-service dynamics. Using annual data between 1990 and 2024 from the Central Bank of Nigeria and related sources, the paper applies unit-root testing and an ARDL (autoregressive distributed lag) framework to examine short-run dynamics and long-run cointegration between external debt and budget components. The analysis finds no long-run cointegrating relationship between external debt and the principal budget aggregates. More so, external debt exhibits strong short-run persistence and partial adjustment. Recurrent expenditure is negatively associated with external debt in the short run (marginally significant). In contrast, capital expenditure shows positive but statistically insignificant effects, an outcome consistent with chronic under-execution of capital budgets. The paper concludes that reducing reliance on external borrowing requires strengthening budget credibility and execution, enhancing domestic revenue mobilization, building fiscal buffers against oil-price shocks, and ensuring that external loans are well-selected as well as implemented on productive capital projects.

KEYWORDS: - External Debt, Government Expenditure, Fiscal Deficit, Budget execution, Debt Sustainability.

1.0 INTRODUCTION

External debt can finance large infrastructure projects, provide concessional resources for social spending, and smooth temporary balance-of-payments shocks (IMF, 2024). When used for high-return investments and prudently managed, external loans can increase productive capacity and future revenues. Conversely, excessive or poorly timed external borrowing increases debt-service burdens, exposes the budget to currency and rollover risks, and can crowd out public investment, especially when loans finance recurrent consumption or when projects fail to deliver expected returns (Osadola, Ojo, & Oludemi, 2023; World Bank, 2013). The net welfare effect, therefore, depends on loan terms, project selection, and public financial management capacity (IMF, 2024).

Nigeria's external debt stock has grown markedly since the early 2000s, with official DMO data showing a notable rise in 2023–2024 as the government tapped external markets to finance the 2024 budget and refinance maturing obligations (Debt Management Office, 2024). By June 30, 2024, Nigeria's external debt stock was reported at approximately US\$42.9 billion, reflecting a mix of multilateral, bilateral, and commercial borrowing (Debt Management Office, 2024). The IMF's 2024 Article IV consultation highlights that recent policy shifts and revenue reforms are intended to stabilize debt dynamics but that near-term risks remain elevated (IMF, 2024).

Public budgets determine financing needs: fiscal deficits must be financed, and where domestic financing is limited or costly, governments turn to external creditors. Budgets are the principal mechanism through which governments and large organizations translate policy priorities into concrete programs, allocate scarce resources, and create the formal basis for control, accountability, and performance evaluation. However, a critical challenge facing the budgeting process in Nigeria is the policy implementation gap: the country's budgets frequently declare development priorities but fail to deliver measurable outcomes because of weaknesses in design, execution, oversight, and contextual fiscal pressures. These execution shortfalls and recurrent-heavy spending patterns increase unplanned financing needs and thus external borrowing (Osadola et al., 2023; Bello & Abdullahi, 2020).

Despite repeated budget commitments to infrastructure and development, Nigeria has experienced a persistent divergence between budgeted intentions and realized outcomes: many capital projects remain incomplete or under-implemented even as external debt stocks and debt-service obligations have risen. This divergence reflects a policy–implementation gap in which budget design, timing, and execution failures create financing shortfalls that are frequently closed with external borrowing. In practice, incomplete projects and delayed disbursements increase the government's need for short-term liquidity and for financing to refinance maturing obligations; when domestic financing is limited or costly, these needs are often met by external

loans, which in turn raise future debt-service commitments and further constrain subsequent budgets (Osadola, Ojo, & Oludemi, 2023).

This paper is therefore tailored to find answers to some specific research questions: to what extent has the government's recurrent budget influenced the country's external debt profile? Is there any correlation between budgeted capital expenditure estimates and Nigeria's external debt stock? What specific policy recommendations can be offered to enhance the efficiency of the government budget in tackling negative spillovers of external borrowing? The study is justified on both policy and academic grounds. Policy-wise, Nigeria's fiscal strategy and debt management depend critically on understanding the drivers of external borrowing: if external debt growth is primarily a response to avoidable budget execution failures or to a persistent bias toward recurrent spending, then reforms to budget credibility and expenditure composition can materially reduce external financing needs and lower debt-service burdens (Malgwi&Unegbu, 2012). In the case of scholarship, the study contributes to the literature on the budget-debt nexus by empirically disentangling the relative importance of the size of recurrent and capital expenditures in managing the debt stock of the country.

Given the background of this study vis-à-vis the gap in the plethora of literature, this study further examined the impact of disaggregated budgetary allocations on external debt benefits, growth and issues for financial literacy and education in Nigeria.

2.0 LITERATURE REVIEW

2.1 Conceptual Framework

The budget is a financial plan that estimates revenues and expenditures over a specified period, typically a fiscal year, and allocates resources to achieve government objectives (Malgwi&Unegbu, 2012). It serves as a roadmap for governments to prioritize spending, manage resources, and achieve policy goals. According to Todea and Călin (2010), the budget is "the quantitative expression of the plan framed by the administration for a specified period and a support for the coordination of the necessary activities in implementing that plan." This definition underscores the budget's role in coordinating activities and ensuring alignment with strategic priorities.

Budgets can be categorized into various types, including fixed, flexible, incremental, zero-based, program, and performance budgets. Fixed budgets are static and set for a specific activity level, while flexible budgets adjust to actual activity levels, providing a fairer basis for performance evaluation (Odeghe, 2013). Incremental budgeting builds on previous allocations, while zero-based budgeting requires justification for all expenditures, promoting efficiency but potentially encouraging "budget engineering" (Malgwi&Unegbu, 2012). Program and performance

budgeting link spending to measurable outcomes, making them particularly effective for accountability and transparency (Mark &Ataire, 2022).

The budget process in Nigeria follows a cyclical sequence: preparation, legislative approval, execution, and audit/reporting. The process begins with the executive branch formulating the budget, which is then submitted to the National Assembly for scrutiny and approval. Once approved, funds are released to Ministries, Departments, and Agencies (MDAs) for implementation. The final stage involves monitoring, auditing, and reporting to ensure accountability and transparency (Eghator& Chima, 2015).

External debt is “the current, actual liabilities of residents to non-residents that require future payments of principal and/or interest, measured on a gross liabilities basis and covering all debt instruments” (IMF, 2013). The concept of external debt has several important dimensions that determine its macroeconomic and fiscal implications. Creditor composition (multilateral, bilateral, commercial) matters because multilateral and concessional loans typically carry lower interest and longer maturities, reducing near-term debt-service pressure. Maturity structure (short vs. long) and currency denomination are critical: short-term or foreign-currency liabilities expose the budget to rollover and exchange-rate shocks, respectively. Purpose and efficiency of use distinguish sustainable from unsustainable debt borrowing for high-return infrastructure that raises growth and export capacity, which can be self-liquidating, whereas borrowing to finance recurrent consumption or poorly implemented projects increases the debt burden without expanding repayment capacity.

2.2 Theoretical Framework

Three major theoretical frameworks are particularly relevant to this study: the Keynesian theory of fiscal deficits, the Debt Overhang and Crowding-Out theories, and the Fiscal Reaction Function (FRF) theory. The Keynesian fiscal framework, rooted in the work of John Maynard Keynes, argues that governments may deliberately run budget deficits, especially during economic downturns, to stimulate aggregate demand, finance public investment, and support employment. When domestic financing is insufficient or costly, governments turn to external borrowing as a supplementary source of funds. In this view, external debt is not inherently harmful; it becomes problematic only when borrowed funds fail to generate sufficient economic returns to service the debt. The Debt Overhang theory, advanced by Krugman (1988) and Sachs (1989), posits that when a country’s external debt becomes excessively high, expected future debt-service obligations discourage private investment because investors anticipate higher future taxes or macroeconomic instability. Similarly, the Crowding-Out theory argues that large public borrowing, whether domestic or external, reduces the resources available for private investment, raising interest rates and slowing growth.

The Fiscal Reaction Function, developed in modern macro-fiscal literature (Bohn, 1998), argues that governments adjust their primary balances in response to rising debt levels. A fiscally responsible government should increase its primary balance (through higher revenue or lower spending) when debt rises, thereby stabilizing the debt-to-GDP ratio. Failure to do so signals fiscal indiscipline, leading to unsustainable debt accumulation. In resource-dependent economies like Nigeria, FRF dynamics are complicated by oil revenue volatility. Empirical studies show that Nigeria often fails to adjust its primary balance during oil booms, leading to pro-cyclical spending and increased borrowing during downturns (IMF, 2024). Weak budget execution and delayed fiscal adjustments, therefore, contribute to rising external debt.

2.3 Empirical Review

Empirical evidence across developing economies consistently shows that budget deficits, expenditure composition, and revenue volatility are the strongest predictors of external debt accumulation. In Nigeria, several studies confirm that persistent fiscal deficits directly increase external borrowing. For example, Osadola, Ojo, and Oludemi (2023) observed that weak budget execution, late releases, and procurement inefficiencies create financing gaps that are frequently closed with external loans, thereby increasing debt-service burdens. Bello and Abdullahi (2020) further demonstrated that demographic pressures and narrow tax bases exacerbate fiscal stress, compelling governments to rely on external borrowing to fund both recurrent and capital expenditures. Outside Nigeria, Aizenman and Jinjark (2010) found that countries with weak fiscal discipline and high expenditure pressures tend to accumulate more external debt, reinforcing the link between budgetary imbalances and external indebtedness. These findings align with IMF (2024) assessments showing that Nigeria's rising external debt is closely tied to structural fiscal deficits and volatile oil revenues.

A second strand of empirical literature highlights the role of budget composition and debt-service dynamics in shaping external debt sustainability. Ogunleye and Nwachukwu (2022) reported that while public expenditure can stimulate growth, excessive borrowing increases debt-service obligations, reducing the fiscal space and increasing the likelihood of additional external borrowing. Ogumka, Ogbonna, and Igwemma (2024) found that external debt has a mixed effect on growth in Nigeria: although it may support short-term investment, high debt-service payments crowd out capital spending and worsen fiscal pressures. World Bank (2013) evidence from sub-Saharan Africa shows that weak transparency and poor budget execution increase reliance on external financing, especially when capital projects remain incomplete. At the global level, Reinhart and Rogoff (2010) demonstrated that countries with persistent fiscal deficits and high debt-service ratios face slower growth and greater external vulnerability.

3.0 METHODOLOGY

This study attempts to ascertain the impact of the government budget on external debt in Nigeria, using annual time series data spanning 35 years from 1990 to 2024, obtained from the Central Bank of Nigeria (CBN) statistical bulletins. The Augmented Dickey Fuller (ADF) unit root and Auto Regressive Distributed Lag (ARDL) estimation approaches were adopted to estimate the data. The model is specified thus:

$$\text{EXTD} = f(\text{ERE}, \text{ECE}) \quad (1)$$

Transforming the structural econometric model into a regression model,

$$\text{EXTD} = \alpha_0 + \alpha_1 \text{ERE} + \alpha_2 \text{ECE} + \mu \quad (2)$$

Where EXTD = External Debt

ERE = Estimated Recurrent Expenditure

ECE = Estimated Capital Expenditure

α_0 = Constant

$\alpha_1 - \alpha_2$ = Coefficients of independent variables

μ = Error Term

Due to normality issues, the model was estimated in the log-linear form as follows:

$$\text{LEXTD} = \alpha_0 + \alpha_1 \text{LERE} + \alpha_2 \text{LECE} + \mu \quad (3)$$

By apriori, $\alpha_1, \alpha_2, > 0$.

4.0 RESULTS AND DISCUSSION

Table 1: Descriptive Statistics

	ERE	ECE	EXTD
Mean	2089.168	1416.732	6327.241
Median	1327.550	706.8800	1631.500
Maximum	8760.000	9990.000	70310.42
Minimum	25.58050	9.055600	298.6100
Std. Dev.	2336.362	2092.528	13351.93
Skewness	1.456683	2.575826	3.684494
Kurtosis	4.433827	9.942479	17.00192
Jarque-Bera	15.37603	108.9922	365.1020

Probability 0.000458 0.000000 0.000000

Observations 35 35 35

Source: Author's Computation

The descriptive statistics show that External Debt (EXTD), Recurrent Expenditure (ERE), and Capital Expenditure (ECE) all exhibit high variability, with large gaps between minimum and maximum values. EXTD has the highest mean (6327.24) and standard deviation (13351.93), indicating substantial volatility in Nigeria's external debt profile over the 35-year period. The positive skewness and high kurtosis for all variables indicate non-normal distributions, with long right tails and extreme values. EXTD's kurtosis (17.00) and skewness (3.68) confirm the presence of large debt spikes, consistent with periods of heavy external borrowing (e.g., Eurobond issuances and multilateral loans). The Jarque-Bera probabilities (all < 0.01) confirm non-normality, which justifies the log-linear transformation of the model, and the use of ARDL, a model robust to mixed integration orders and non-normal distributions.

Table 2: Augmented Dickey-Fuller (ADF) Unit Root Test

Variables		t-statistic	Critical value (0.05)	Prob.	Order of Integration
LERE	Level	-2.014	-2.951125	0.8506	I(1)
	1 st Difference	-5.687	-2.954021	0.0004	
LECE	Level	-1.344	-2.951125	0.5021	I(1)
	1 st Difference	-5.674	-2.957110	0.0000	
EXTD	Level	-0.414	-2.954021	0.2163	I(1)
	1 st Difference	-3.859	-2.954021	0.0004	

Source: Author's Computation

The ADF results show that LERE, LECE, and LEXTD are non-stationary at the level but become stationary at the first difference, meaning all variables are $I(1)$.

Table 3: ARDL (Cointegration/Long run) Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LERE	-23.86484	83.83588	-0.284661	0.7782
LECE	21.49401	73.59161	0.292071	0.7725

$$EC = LEXTD - (-23.8648 * LERE + 21.4940 * LECE)$$

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
Finite Sample: n=35				
F-statistic	1.460985	10%	3.393	4.41
k	2	5%	4.183	5.333
Actual Sample Size	33	1%	6.14	7.607

Source: Author's Computation

The F-Bounds test statistic of 1.46 is lower than the critical values at both the $I(0)$ and $I(1)$ bounds, confirming the absence of cointegration among the variables. Furthermore, the long-run coefficients for LERE and LECE are statistically insignificant, confirming the bounds test result.

Table 3: ARDL Short Run Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LEXTD(-1)	1.395475	0.180396	7.735625	0.0000
LEXTD(-2)	-0.425024	0.187349	-2.268624	0.0318
LERE	-0.705195	0.385441	-1.829580	0.0788
LECE	0.065898	0.236681	0.278426	0.7829
LECE(-1)	0.127513	0.309477	0.412027	0.6837
LECE(-2)	0.441727	0.261271	1.690689	0.1029
C	3.460989	2.310416	1.497994	0.1462
R-squared	0.914388	Mean dependent var		28.45196
Adjusted R-squared	0.894632	S.D. dependent var		1.383567
S.E. of regression	0.449112	Akaike info criterion		1.422743
Sum squared resid	5.244244	Schwarz criterion		1.740184
Log likelihood	-16.47526	Hannan-Quinn criter.		1.529552
F-statistic	46.28285	Durbin-Watson stat		1.996621
Prob(F-statistic)	0.000000			

Source: Author's Computation

The result in Table 4 follows the same trend as Table 3, with only LERE marginally significant at 10% level. LECE and its 1 and 2 lags are positive but insignificant.

4.1 DISCUSSION OF FINDINGS

The ARDL results show that LEXTD (−1) is positive and highly significant ($p < 0.01$), while LEXTD(−2) is negative and significant. This indicates that external debt in Nigeria is strongly persistent, meaning past debt levels heavily influence current debt accumulation. This finding validates the hypothesis that external debt follows a path-dependent process, consistent with the debt-accumulation theory of Reinhart and Rogoff (2010), who argue that developing countries often experience “debt inertia” due to rollover pressures and limited fiscal buffers. The negative second lag suggests partial adjustment, implying that although debt grows, there is some correction over time. This implies that Nigeria’s external debt is not driven by short-term fiscal decisions alone but by structural borrowing patterns, including refinancing of old debts, exchange-rate depreciation, and reliance on multilateral and commercial loans. This supports the IMF (2024) findings that Nigeria’s debt trajectory is shaped by oil-revenue volatility and persistent fiscal deficits.

LERE has a negative coefficient (−0.705) and is marginally significant ($p \approx 0.078$). This debunks the a priori expectation that higher recurrent expenditure increases external debt. Instead, the result suggests that increases in recurrent spending are associated with lower external debt in the short run. This outcome is plausible because recurrent expenditure in Nigeria, mainly salaries, overheads, and subsidies, is typically financed through domestic revenue and domestic borrowing, not external loans. Bello and Abdullahi (2020) similarly found that recurrent expenditure is more closely linked to internally generated revenue and domestic debt, while external borrowing is often tied to capital projects. However, LERE is positive in the long run, though insignificant.

LECE and its lags are positive but statistically insignificant, indicating that capital expenditure does not significantly influence external debt in either the short or long run. This contradicts the a priori expectation that capital expenditure should increase external borrowing, since capital projects often require large financing. This finding is consistent with empirical evidence showing that Nigeria’s capital budget execution is chronically low due to procurement delays, late releases, and project abandonment (Osadola, Ojo & Oludemi, 2023). As a result, even when capital expenditure is budgeted, it does not translate into actual spending that would require external financing. World Bank (2013) also notes that in many African countries, capital budgets are under-executed, meaning external loans intended for capital projects remain undisbursed or are reallocated. It also implies that external borrowing in Nigeria is not systematically tied to

capital expenditure, but rather to short-term financing needs, exchange-rate shocks, and refinancing obligations.

5.0 CONCLUSION

Nigeria's external debt trajectory is not structurally tied to its budgetary allocations. Instead, external borrowing appears to be driven by short-term fiscal pressures, revenue instability, and structural weaknesses in public financial management, rather than by systematic long-term expenditure planning. This finding aligns with international evidence showing that in resource-dependent economies, debt dynamics are shaped more by macroeconomic shocks than by fiscal fundamentals (IMF, 2024; World Bank, 2013; Osadola et al., 2023). Recurrent expenditure's negative and marginally significant effect on external debt in the short run also reflects Nigeria's fiscal reality, where recurrent expenditure is largely financed through domestic revenue and domestic borrowing, not external loans.

Consequently, the following policy recommendations are offered for fiscal sustainability:

1. Fundamental strengthening of budget credibility and execution by ensuring that budgets are approved on time, releases are made promptly, and procurement processes are transparent and efficient so that capital projects can be implemented as planned. Strengthening project management capacity and enforcing accountability for delays or abandoned projects will help close the persistent gap between budgeted and actual spending.
2. Expanding domestic revenue base by broadening the tax net, strengthening non-oil revenue sources, and modernizing tax administration through digital systems that minimize leakages and improve compliance.
3. Given Nigeria's vulnerability to oil-price shocks, building robust fiscal buffers is essential for reducing crisis-driven external borrowing. Strengthening the Sovereign Wealth Fund and other stabilization mechanisms, adopting fiscal rules that smooth expenditure across oil cycles, and exploring hedging strategies for oil-price risk will help insulate the budget from revenue volatility.
4. External borrowing should be more strategically linked to capital projects that generate measurable economic returns. This requires rigorous cost-benefit analysis before contracting loans, strict adherence to project selection criteria, and improved monitoring of project implementation to ensure that borrowed funds translate into completed, productive assets.

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