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MACROECONOMIC EFFECTS OF BUDGET DEFICITS AND EXTERNAL DEBT SERVICING ON ECONOMIC GROWTH IN NIGERIA

BY

Sola, OLUWAGBENLE
ORCID: 0000-0003-1880-3541
Department of Economics,
Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti.
Email: oluwagbenle.sola@bouesti.edu.ng

ABSTRACT

This study examined the short-run linkages among budget deficits, external debt servicing, and economic growth in Nigeria using annual time series data spanning from 1981 to 2024. The study employed the Ordinary Least Squares (OLS) regression technique to analyze the effects of budget deficit, external debt servicing, exchange rate, and inflation on economic growth in Nigeria. Gross Domestic Product (GDP) was used as a proxy for economic growth, while budget deficit, debt servicing, exchange rate, and inflation rate served as the explanatory variables. The empirical findings revealed that budget deficit exerts a positive and statistically significant effect on economic growth in Nigeria, suggesting that deficit financing, when properly channeled into productive sectors, can stimulate economic activities and enhance growth performance. The result further showed that external debt servicing has a negative but statistically insignificant relationship with economic growth, indicating that rising debt servicing obligations may constrain productive investment and fiscal flexibility, although the effect was not strong enough to significantly influence growth during the study period. Similarly, exchange rate was found to have a negative and insignificant effect on economic growth, implying that exchange rate fluctuations and currency depreciation have not significantly contributed to growth enhancement in Nigeria. Inflation, however, exhibited a negative and statistically significant effect on economic growth, indicating that persistent increases in general price levels adversely affect macroeconomic stability and productive activities in the economy. Based on the findings, the study concluded that while budget deficits can promote economic growth when efficiently managed, excessive inflation and debt servicing obligations pose threats to sustainable economic performance in Nigeria. The study therefore recommended that government should ensure prudent utilization of borrowed funds toward productive and growth-enhancing sectors, implement effective inflation control policies, and strengthen fiscal discipline to reduce the burden of debt servicing and maintain macroeconomic stability.

Keywords: Budget Deficit, External Debt Servicing, Economic Growth, Inflation, Exchange Rate, Ordinary Least Squares, Nigeria.

JEL Classification: E62, F34, H62, O40.

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1.0 INTRODUCTION

Nigeria's journey through the corridors of fiscal policy has been a turbulent one, often marked by fluctuations in revenue, surges in expenditure, and the persistent challenges of financing national development. Since gaining independence in 1960, and more pointedly from 1981, Nigeria has struggled to balance her national budget while meeting the demands of a growing population and an expanding economic structure. The early 1980s brought with it the severe consequences of the oil price collapse, which exposed Nigeria's heavy reliance on oil revenues and deepened the budget deficit crisis (Iyoha, 1999). The country, once buoyed by oil windfalls in the 1970s, suddenly found itself in a precarious fiscal position, forcing it to borrow externally and accumulate debts as a coping mechanism.

The period from 1981 ushered Nigeria into an era of fiscal imbalance, with government spending frequently exceeding revenue, creating budget deficits that often necessitated both domestic and external borrowing. The military regimes of the 1980s and 1990s adopted extensive borrowing practices, partly to maintain political stability and partly to fund large-scale projects with questionable economic returns. As a result, Nigeria's external debt stock ballooned significantly, contributing to a cycle of debt accumulation and repayment difficulties (Ajayi, 1991). These patterns highlighted the challenges of prudent fiscal management and laid bare the risks of unsustainable debt practices in a developing economy.

The adoption of the Structural Adjustment Programme (SAP) in 1986 under the aegis of international financial institutions was a watershed moment in Nigeria's economic history. With it came liberalization policies and conditionalities that emphasized budgetary discipline, yet the policy simultaneously encouraged foreign borrowing as a means to bridge the financing gap. Ironically, while SAP aimed to reduce fiscal deficits and stimulate economic growth through market-oriented reforms, it exacerbated socio-economic inequality and failed to deliver the anticipated growth dividends (Ajakaiye, 1990). The paradox of pursuing fiscal consolidation while expanding debt portfolios added complexity to Nigeria's economic narrative, especially as debt servicing obligations began to crowd out capital expenditure.

As the debt burden increased, so too did the difficulty in servicing these obligations. By the late 1990s, Nigeria's debt service-to-revenue ratio had reached alarming levels, consuming substantial portions of public revenues that could have otherwise been channeled into productive sectors like education, health, and infrastructure (Iyoha, 2000). This fiscal squeeze severely constrained economic growth and perpetuated a cycle of underdevelopment. The economic logic that sustained this trajectory was flawed; borrowing to finance consumption or unproductive ventures yielded minimal returns and compounded the financial burden on future budgets.

The return to democratic rule in 1999 was accompanied by renewed efforts to address the budget deficit and external debt crises. The government, under President Obasanjo, initiated reforms aimed at debt relief, transparency, and economic diversification. These efforts culminated in the landmark debt buy-back agreement with the Paris Club in 2005, which saw Nigeria exit a significant portion of its external debt portfolio and provided fiscal space for renewed economic investments (Okonjo-Iweala, 2012). The relief from debt servicing obligations was expected to boost growth and development, yet the structural weaknesses of the economy remained a formidable barrier.

Despite these reform efforts, budget deficits remained a recurring feature of Nigeria's fiscal landscape. Recurrent expenditure, particularly on public sector wages and subsidies, continued to dwarf capital expenditure, thereby undermining long-term growth prospects. The revenue base remained narrow, overly dependent on oil, and vulnerable to global shocks. With oil contributing over 70% of government revenue, any fluctuation in global oil prices reverberated through the national budget, often resulting in expanded deficits and renewed borrowing (Ezeabasili et al., 2011). This pattern exposed the fragility of Nigeria's fiscal planning and its limited ability to self-finance economic development.

The 2008 global financial crisis marked another turning point. Although Nigeria initially appeared insulated due to strong macroeconomic fundamentals and debt relief gains, the subsequent decline in oil prices and reduced foreign investment inflows reignited budgetary pressures. The government responded with stimulus packages, many of which were deficit-financed, thereby nudging the country back into the trajectory of debt accumulation. Economic growth slowed, and the budget deficit widened, signaling deeper structural challenges (Sanusi, 2010). This period underscored the fragility of Nigeria's growth model, which was still tethered to oil and susceptible to external shocks.

The 2016 economic recession, induced by a combination of oil price shocks and domestic policy inconsistencies, forced a national reckoning. Nigeria's GDP contracted, revenue declined, and budget deficits surged once more. External borrowing resumed aggressively, with government justifications centered on financing infrastructure and stabilizing the economy. Debt servicing costs escalated dramatically, consuming a large share of revenue and raising fresh concerns about the sustainability of public debt (BudgIT, 2018). The paradox of borrowing to finance recovery while compromising future fiscal stability became ever more pronounced.

Between 2017 and 2024, Nigeria's economic story oscillated between modest recoveries and persistent fiscal challenges. The COVID-19 pandemic exacerbated pre-existing weaknesses, compelling the government to borrow more—this time from both domestic and multilateral sources. As public debt soared past $100 billion in the early 2020s, with external debt accounting for a large portion, the country found itself facing the same dilemmas of the past: how to balance deficit financing with growth imperatives, and how to service debts without undermining social and economic investments (World Bank, 2023). Budget deficits continued to widen due to a combination of subsidy payments, revenue shortfalls, and rising debt servicing commitments.

What makes Nigeria's case particularly instructive is the recurring mismatch between budgetary projections and actual performance. Annual budgets often present optimistic revenue targets, which, when unmet, lead to deficit overruns and reactive borrowing. The lack of robust fiscal buffers and inefficient tax systems has compounded this challenge. According to the International Monetary Fund (IMF), Nigeria's tax-to-GDP ratio remains among the lowest globally, hovering around 6–8%, well below the 15% threshold recommended for developing economies (IMF, 2021). This persistent revenue inadequacy makes the country increasingly reliant on borrowing to plug fiscal gaps, perpetuating a vicious cycle.

The link between budget deficits, debt servicing, and economic growth is therefore not merely academic but central to Nigeria's developmental trajectory. Empirical studies have shown that excessive debt servicing impairs public investment, reduces fiscal space, and ultimately constrains economic growth, especially when borrowed funds are not effectively

utilized (Onyekachi, 2013). Nigeria's experience offers a clear illustration of this phenomenon, where rising debt levels have not always translated into improved growth or social outcomes. Rather, the country has witnessed a crowding-out effect, with resources diverted from growth-enhancing sectors to debt repayment.

Furthermore, the implications of persistent budget deficits go beyond macroeconomic indicators. They erode investor confidence, spur inflationary pressures, and strain the monetary system. The Central Bank of Nigeria has often had to finance deficits through Ways and Means Advances, a practice that raises concerns about fiscal dominance and inflationary financing (CBN, 2022). These actions, while offering temporary relief, introduce long-term distortions and undermine monetary policy effectiveness. The interactions between fiscal deficits and monetary policy therefore warrant critical attention in any discourse on Nigeria's economic health.

The Nigerian government's recurring resort to external borrowing also raises questions about sovereignty, policy autonomy, and intergenerational equity. With increasing reliance on Chinese loans, Eurobonds, and multilateral credit, concerns have emerged over the terms and transparency of such agreements. Unlike concessional loans, commercial borrowings attract higher interest rates and shorter repayment periods, thereby intensifying fiscal pressure (Ogbonna & Ebimobowei, 2012). The opaque nature of some of these transactions fuels fears of debt traps and compromises the ability of future governments to make independent policy choices.

Over the years, scholars and policymakers have debated the optimal level of fiscal deficit that is growth-compatible. While moderate deficits can be used to stimulate economic activity during downturns, persistent and high deficits, especially when debt servicing is unsustainable, can stifle long-term growth. In Nigeria's case, the evidence points to a cyclical pattern of borrowing without corresponding productivity gains, making the economic impact of such deficits largely negative (Ariyo& Raheem, 1991). Understanding this dynamics is critical for crafting a sustainable fiscal path.

In Nigeria, the challenges of budget deficits, external debt servicing, and their implications for economic growth remain as pertinent as ever. The country stands at a crossroads where bold, evidence-based policy reforms are needed to reverse the cycle of debt dependence and unlock the growth potential of the economy. Strengthening revenue generation, improving public financial management, prioritizing productive investments, and enhancing debt transparency are some of the steps necessary to ensure that fiscal policy becomes a catalyst rather than a constraint to development.

In the early 1980s, Nigeria stood at a crossroads. Buoyed by oil revenues, the nation experienced a surge in public spending, leading to ambitious infrastructural projects and expansive social programs. However, this period of prosperity was short-lived. The global oil glut of the mid-1980s precipitated a sharp decline in oil prices, exposing the fragility of Nigeria's mono-product economy. As revenues dwindled, the government resorted to borrowing to finance its burgeoning budget deficits, marking the genesis of a persistent cycle of debt accumulation and economic vulnerability.

By 1985, Nigeria's external debt had ballooned to approximately $19 billion, a stark increase from previous years. This escalation was not merely a reflection of fiscal imprudence but also indicative of structural weaknesses within the economy. The reliance on external borrowing to bridge fiscal gaps became a recurring theme, with successive

administrations grappling with the dual challenges of stimulating growth and managing debt obligations.

The Structural Adjustment Program (SAP) introduced in 1986, under the auspices of the International Monetary Fund (IMF) and the World Bank, aimed to address these challenges. While the SAP sought to liberalize the economy and reduce government intervention, it also mandated austerity measures that exacerbated social inequalities and led to widespread public discontent. The anticipated economic revitalization remained elusive, and the nation's debt profile continued its upward trajectory.

Throughout the 1990s and early 2000s, Nigeria's debt burden became increasingly unsustainable. By 2005, the nation's total debt stood at approximately $36 billion, with debt servicing consuming a significant portion of national revenues. This scenario culminated in the historic debt relief agreement with the Paris Club in 2005, wherein Nigeria secured an $18 billion debt write-off in exchange for a $12 billion payment. While this move temporarily alleviated the debt burden, it did not address the underlying fiscal challenges.

In the subsequent years, Nigeria's fiscal landscape remained precarious. The global financial crisis of 2008, coupled with domestic challenges such as insurgency and infrastructural deficits, strained public finances. The government's response often involved increased borrowing, leading to a resurgence in both domestic and external debts. By the end of 2022, Nigeria's total public debt had risen to N46.25 trillion, with external debt accounting for 40.4% of this figure.

The implications of this debt accumulation are multifaceted. Firstly, a significant portion of national revenues is allocated to debt servicing, thereby constraining investments in critical sectors such as education, healthcare, and infrastructure. For instance, in the 2025 budget, over 45% of total revenue is earmarked for debt servicing, surpassing allocations for defense, infrastructure, health, and education combined.

Secondly, the persistent budget deficits and escalating debt levels have macroeconomic repercussions. The government's reliance on borrowing, particularly from the Central Bank, has inflationary consequences. The resultant currency devaluation erodes purchasing power, exacerbates poverty, and undermines economic stability. Moreover, high debt levels deter foreign investment, as investors perceive increased fiscal risks.

Furthermore, the efficacy of borrowed funds in stimulating economic growth remains questionable. Studies indicate that while domestic debt may have a positive impact on growth in the long run, external debt often exerts a negative influence due to debt overhang. This phenomenon occurs when the anticipated future debt servicing obligations discourage both domestic and foreign investments, thereby stifling economic growth.

The challenges are compounded by issues of fiscal transparency and governance. Instances of mismanagement, corruption, and lack of accountability have plagued public finance management. For example, reports have highlighted discrepancies in financial data and concerns over the utilization of borrowed funds, raising questions about the government's commitment to fiscal prudence.

In recent years, efforts have been made to implement fiscal reforms aimed at enhancing revenue generation and curbing expenditure. The removal of petrol subsidies and the devaluation of the currency are notable measures undertaken to address fiscal imbalances. These reforms have yielded some positive outcomes, including a reduction in the fiscal

deficit from 6.2% of GDP in the first half of 2024 to 4.4% in the same period this year. However, the sustainability and long-term impact of these reforms remain to be seen.

Given this backdrop, it becomes imperative to critically examine the interplay among budget deficits, external debt servicing, and economic growth in Nigeria over the periods 1981 to 2024. Understanding the dynamics of this relationship is crucial for formulating policies that not only address fiscal imbalances but also foster sustainable economic growth. This study intends to explore these interconnections, identify the underlying factors contributing to fiscal challenges, and propose actionable recommendations to enhance Nigeria's economic growth. Further, this study seeks to examine the intricate linkages among budget deficits, external debt servicing, and economic growth in Nigeria from 1981 to 2024, drawing lessons from the past while offering insights for the future.

2.0 REVIEW OF RELATED LITERATURE

2.1.1 Concept of Budget Deficit

The story of Nigeria's economic evolution cannot be fully understood without considering the persistent shadow cast by budget deficits. At its most basic definition, a budget deficit arises when a government's expenditure surpasses its revenue within a fiscal year, excluding borrowed funds. This gap represents the financial shortfall the government must bridge to maintain its operations, often through borrowing or monetary expansion. In a developing economy like Nigeria, where recurrent expenditure tends to balloon while revenue generation remains fragile and overly dependent on volatile oil exports, budget deficits have become a familiar narrative in public finance (Iyoha & Oriakhi, 2002).

Budget deficits are not monolithic; rather, they come in various forms, each reflecting specific fiscal realities. The most widely referenced is the fiscal deficit, which encapsulates the total shortfall between total government expenditure and total revenue, including borrowings. A primary deficit, in contrast, measures the fiscal deficit excluding interest payments on past debt, offering a clearer picture of current fiscal performance. Then there is the revenue deficit, which compares revenue expenditure with revenue receipts, signaling a situation where the government is unable to cover its regular operational costs without resorting to borrowing. In the Nigerian context, these deficits often overlap, creating a complex web of fiscal imbalance that challenges policy makers (Ariyo & Raheem, 1991).

Understanding why Nigeria and many developing economies grapple with persistent budget deficits demands a closer examination of structural and institutional factors. Chief among these is the over-reliance on oil exports, which makes the economy and consequently public finances vulnerable to global oil price shocks. In years of declining oil revenue, government income plummets while expenditure obligations particularly on public sector wages, subsidies, and security remain rigid. Additionally, inefficiencies in tax administration, corruption, and the existence of a vast informal sector significantly undermine domestic revenue mobilization (Okonjo-Iweala & Osafo-Kwaako, 2007). When governments fail to match their expenditure ambitions with realistic revenue paths, deficits become an annual fixture rather than a temporary anomaly.

Another critical driver of Nigeria's budget deficits has been the politicization of public spending. Governments, particularly in election years, often embark on expansive spending programs to garner public support, with little regard for revenue capacity. Infrastructure projects, social intervention schemes, and large-scale public sector recruitments are typically financed through unsustainable borrowing or by running deficits, under the assumption that

future oil windfalls will offset the shortfall. Unfortunately, such assumptions rarely materialize, especially in a global economy increasingly shifting away from fossil fuels (Egwaikhide, 1997).

The implications of persistent budget deficits in Nigeria have been profound, not just for macroeconomic stability but for long-term development. Chronic deficits often lead to high public debt, both domestic and external, which diverts scarce national resources towards debt servicing instead of productive investment in health, education, and infrastructure. Moreover, deficits financed through money creation especially by the Central Bank can lead to inflationary pressures, currency devaluation, and loss of investor confidence. These destabilizing effects ultimately hamper economic growth, distort market signals, and widen income inequality (Obadan, 2004).

Furthermore, repeated deficits erode fiscal credibility and limit the government's ability to implement counter-cyclical policies during economic downturns. As borrowing escalates, debt sustainability becomes a pressing concern. In Nigeria's case, debt servicing now consumes a significant share of the federal budget, leaving little room for capital projects. The vicious cycle of deficit spending, borrowing, and debt repayment traps the economy in a loop of underperformance and rising vulnerability to external shocks (Sanusi, 2011). What began as temporary gaps between revenue and spending has evolved into a systemic challenge, one that has shaped the contours of Nigeria's economic history over the last four decades.

Thus, the concept of budget deficit is not merely a fiscal accounting matter, it is a window into the deeper political economy of Nigeria. It reveals the country's struggle to reconcile ambitious developmental aspirations with weak institutional capacity, an erratic revenue base, and an entrenched culture of rent-seeking. Addressing the budget deficit requires more than trimming expenditures or increasing taxes; it demands structural reforms, transparency, and a shift in national priorities towards sustainable fiscal management (Ezeabasili, Mojekwu & Herbert, 2012).

2.1.2 Concept of External Debt

In the vast arena of public finance, external debt emerges as a double-edged sword a mechanism for economic stimulus and, at times, a burden that shackles a nation's growth. External debt refers to the total public and private debt owed by a country to foreign creditors, which must be paid in foreign currency, goods, or services. It often becomes necessary when a government's domestic revenues fall short of its developmental ambitions. This phenomenon is not new, particularly for developing nations like Nigeria, where economic volatility, political instability, and institutional weaknesses have made foreign borrowing an almost perennial solution to financial deficits (World Bank, 2022). The dynamics of external debt are intricate, involving various stakeholders such as multilateral organizations, bilateral lenders, and private creditors.

External debt can be classified primarily into concessional and non-concessional loans. Concessional loans are those extended on terms substantially more generous than market loans. They often come with low-interest rates, longer repayment periods, and grace periods before repayments begin. Institutions like the World Bank's International Development Association (IDA) or the African Development Fund (ADF) typically offer such loans to support poverty alleviation and infrastructural development in low-income countries (IMF, 2023). On the other hand, non-concessional loans, typically offered by private lenders or commercial banks, carry higher interest rates and shorter repayment

durations, reflecting more market-based terms. These loans are riskier and are usually resorted to when concessional options are unavailable or when immediate funding is required for urgent national needs (UNCTAD, 2020).

Another distinction that is essential in understanding debt sustainability is between external and internal debt. Internal debt is borrowed from domestic lenders banks, corporations, and the general public usually denominated in the local currency and payable within the country's financial system. In contrast, external debt requires the borrower to repay in foreign currency, making it vulnerable to exchange rate fluctuations and foreign monetary policies. Internal debt tends to be less risky in terms of currency and repayment terms, but overreliance can crowd out private investment and inflate domestic interest rates. In contrast, external debt, while essential for accessing capital not available locally, carries risks of balance of payments crises if mismanaged or if foreign reserves dwindle (Ajayi & Khan, 2000).

The evolution of Nigeria's external debt profile from 1981 to 2024 reads like a chronicle of shifting economic policies and political will. In the early 1980s, Nigeria borrowed heavily following the collapse of oil prices, leading to significant fiscal deficits. The Structural Adjustment Programme (SAP) introduced in 1986, under IMF and World Bank guidance, marked a turning point, encouraging Nigeria to embrace foreign loans for economic restructuring. However, by the late 1990s and early 2000s, the country was heavily indebted, prompting the historic 2005 debt relief agreement with the Paris Club, which saw $18 billion written off (Okonjo-Iweala, 2018). Yet, by the 2010s and into the 2020s, external borrowing surged again due to oil price volatility, recessionary pressures, and the COVID-19 pandemic, culminating in a new debt landscape dominated by both concessional and non-concessional sources (Debt Management Office, 2024).

Nigeria's reasons for external borrowing have always reflected pressing developmental and macroeconomic concerns. Infrastructure development has been a foremost rationale. Massive capital projects in transportation, power, and agriculture have consistently required foreign investment due to the inadequacy of domestic savings and revenue. Moreover, external debt has been used to support the balance of payments, a crucial intervention when export earnings drop, especially from crude oil, Nigeria's main revenue source. Emergency funding during periods of economic crisis, such as during the COVID-19 pandemic or global oil crashes, has also necessitated borrowing to stabilize the economy and ensure continued delivery of essential public services (Ezeabasili, Mojekwu & Herbert, 2011). While external debt offers a lifeline, it must be managed with prudence, ensuring that borrowed funds translate into growth-enhancing projects that generate enough returns to service the debt without creating a vicious cycle of dependency.

2.1.3 Debt Servicing in the Context of Nigeria's Economic Growth

Debt servicing, a fundamental concept in public finance and macroeconomic management, refers to the payment of principal and interest on borrowed funds over time. For countries like Nigeria, which have historically relied on external borrowing to finance budget deficits, debt servicing constitutes a significant fiscal obligation. The two primary components of debt servicing are the repayment of the principal amount borrowed and the interest accrued on that debt (Reinhart & Rogoff, 2010). Principal repayment reduces the outstanding debt stock, while interest payments represent the cost of borrowing and must be met regularly, regardless of the borrower's economic performance. This dual nature of debt servicing underscores the importance of managing debt prudently to avoid fiscal distress.

The sustainability of debt is often assessed by the debt-to-GDP ratio, which compares the total external debt of a country to its gross domestic product (IMF, 2020). This ratio provides insight into a country's ability to generate sufficient economic output to service its debt. For Nigeria, fluctuating oil revenues and macroeconomic shocks have resulted in varying debt-to-GDP ratios over the decades, with periods of rapid accumulation of external debt followed by intense pressure on servicing obligations. A rising debt-to-GDP ratio signals potential difficulties in meeting future debt service requirements without sacrificing essential public expenditures or resorting to further borrowing (Borensztein & Mauro, 2004). Maintaining debt sustainability thus becomes crucial to safeguarding economic stability and growth prospects.

Debt servicing significantly affects a country's fiscal space the budgetary room available for government spending without jeopardizing financial health (Hofmann, 2015). When large portions of government revenue are earmarked for debt service, fewer resources remain for critical sectors such as infrastructure, health, and education, which are vital for long-term economic growth. In Nigeria, the recurrent high debt servicing costs, particularly during periods of elevated external debt stock, have constrained government spending on development programs, thereby slowing progress toward poverty reduction and economic diversification (Okonjo-Iweala, 2010). This crowding-out effect highlights the delicate balance policymakers must strike between borrowing to finance development and managing debt burdens sustainably.

An important theoretical framework in understanding the impact of debt on economic growth is the concept of debt overhang. Debt overhang occurs when a country's existing debt is so large that potential lenders or investors anticipate that future earnings will primarily be used for debt repayment rather than new investments, discouraging fresh capital inflows (Krugman, 1988). This pessimistic outlook can stall growth by limiting access to external financing and dampening domestic investment incentives. In Nigeria's case, episodes of high external debt and mounting servicing costs have contributed to periods of sluggish growth and economic uncertainty, reinforcing the debt overhang hypothesis (Easterly, 2002). Addressing this challenge requires prudent debt management, structural reforms, and sometimes debt relief to restore confidence and stimulate investment.

In sum, debt servicing is a double-edged sword: while borrowing can finance essential development, excessive debt servicing burdens can undermine fiscal capacity, distort resource allocation, and hamper economic growth. For Nigeria, understanding and managing these dynamics between budget deficits, external debt servicing, and economic growth remain central to achieving sustainable development and fiscal stability from 1981 through 2024.

2.1.4 Relationship between Budget Deficit and Economic Growth

The relationship between budget deficits and economic growth has long been a subject of debate among economists, with contrasting views shaping policy decisions worldwide. At the heart of this discourse lies the Keynesian perspective, which posits that deficit spending, especially in times of economic downturn, can serve as a vital tool for stimulating growth in the short run. John Maynard Keynes, writing during the Great Depression, argued that government expenditure financed by borrowing could boost aggregate demand, leading to increased production and employment (Keynes, 1936). In Nigeria, this idea resonated during periods of economic recession or oil price shocks when the government deliberately ran deficits to stimulate demand and cushion the economy from

external shocks (Ajakaiye & Fakiyesi, 2016). According to Keynesian theory, such deficit spending should, in theory, spur growth by filling the gap left by insufficient private investment or consumption.

However, not all economic theories concur with the Keynesian optimism about deficits. The Ricardian Equivalence Theory, advanced by Robert Barro (1974), presents a starkly different viewpoint. This theory suggests that when a government runs a deficit, rational households anticipate future tax increases needed to repay the debt and thus increase their savings to offset this future burden. Consequently, deficit financing does not increase overall demand or output because private saving crowds out public borrowing (Barro, 1974). Applied to Nigeria, this theory implies that fiscal deficits may not stimulate growth since citizens, anticipating higher taxes or inflation, may reduce consumption or increase savings instead. Empirical validation of Ricardian Equivalence is mixed globally, and in Nigeria's context, where informal sectors dominate and tax compliance is relatively low, the extent to which households behave in a fully rational manner remains debatable (Iyoha, 1999).

The empirical reality in Nigeria, spanning from 1981 to 2024, reflects a complex interaction between budget deficits and economic growth that often defies simplistic theoretical models. Numerous studies indicate that Nigeria's persistent fiscal deficits have frequently coincided with periods of sluggish growth and high inflation, suggesting that deficits have sometimes undermined economic performance rather than bolstered it (Ogun, 2013). For instance, Okoro and Okoro (2019) found that excessive government borrowing and external debt servicing crowded out productive investment, leading to reduced capital formation and slower GDP growth. This crowding-out effect aligns more closely with classical and monetarist concerns than with Keynesian prescriptions, emphasizing that deficits financed through borrowing can raise interest rates and stifle private investment.

Yet, some researchers argue that in Nigeria's context, deficits have occasionally supported growth, particularly when linked to capital expenditures in infrastructure and social services (Onu & Anugwo, 2018). This underscores the importance of how deficit funds are utilized deficits channeled into productive investments may generate future returns and foster growth, while deficits used to finance recurrent expenditure or service debts may have the opposite effect. The mixed empirical findings highlight that the relationship is neither linear nor uniform but conditioned by the broader economic environment, fiscal management quality, and institutional factors (Adegbite & Ayadi, 2014).

In sum, the debate over the impact of budget deficits on Nigeria's economic growth illustrates the tension between theoretical models and real-world outcomes. The Keynesian view offers a rationale for using deficit spending as a stimulus tool, especially in recessionary times, while Ricardian Equivalence warns of the limits of such policies. Empirical evidence from Nigeria suggests that the growth effects of deficits depend significantly on the context of fiscal management, debt sustainability, and the economic environment. Understanding this nuanced relationship remains critical for policymakers aiming to balance fiscal responsibility with growth imperatives.

2.1.5 Impact of External Debt on Economic Growth

The relationship between external debt and economic growth in developing countries like Nigeria is complex and multifaceted, often embodying a dual role that can either propel or impede growth. On one hand, external debt serves as a vital source of investment capital, particularly for countries facing budget deficits and limited domestic savings. When used effectively, borrowed funds finance infrastructure, technology, and social services that lay the

foundation for sustainable economic expansion (Easterly, 2002). Nigeria, during its early debt accumulation phases, leveraged external loans to fund development projects aimed at stimulating industrialization and economic diversification, hoping to catalyze long-term growth (Adeniran & Adegbite, 2013). This optimism about debt's catalytic role is rooted in the idea that borrowing today can enhance productive capacity tomorrow, creating a virtuous cycle of investment and output.

However, the other side of the coin reveals a burden on future income as debt servicing obligations escalate. When a country's external debt grows excessively, the costs of interest payments and principal repayments begin to drain resources that could otherwise be channeled into productive investments or social spending (Patillo, Poirson & Ricci, 2004). For Nigeria, periods of high debt servicing coincided with reduced government spending on health, education, and infrastructure, ultimately stifling economic growth and worsening poverty (Iyoha, 2004). The sustainability of debt thus becomes a critical concern, as servicing external debt requires foreign exchange outflows, which can deplete reserves and expose the economy to balance-of-payments crises (Ojong & Okolo, 2015).

The notion of the Debt Laffer Curve offers a useful framework for understanding the threshold beyond which debt ceases to be beneficial and starts to harm growth. This concept, derived from the more general Laffer Curve in fiscal economics, suggests that there exists an optimal debt level where the marginal benefit of borrowing equals the marginal cost. Up to this point, debt promotes growth by financing productive investments; beyond it, debt servicing costs rise disproportionately, crowding out growth-enhancing expenditures (Reinhart & Rogoff, 2010). Empirical studies suggest that for Nigeria, this threshold has been crossed multiple times, especially during the 1980s and early 2000s when debt-to-GDP ratios soared above sustainable levels, leading to stagnation and recessionary pressures (Iyoha & Oriakhi, 2008). These episodes reinforce the critical importance of prudent debt management to avoid the downward spiral where increasing debt undermines economic performance.

Nigeria's debt-growth dynamics have been extensively examined in empirical literature, highlighting both the potential benefits and severe risks of external borrowing. Adebiyi and Olaniyan (2004) found that moderate levels of external debt initially spurred growth through capital formation, but beyond a certain point, the debt burden suppressed economic performance. Similarly, Ajakaiye and Olofin (1996) demonstrated that debt servicing obligations reduced fiscal space for investments in human capital and infrastructure, exacerbating growth challenges. More recent analyses by Nwankwo and Okechukwu (2019) emphasized the cyclical nature of Nigeria's debt problem, where excessive borrowing to cover budget deficits led to mounting debt service costs, which in turn intensified deficits and hampered growth prospects. These findings underscore the paradox of external debt in Nigeria: a necessary but potentially harmful instrument that requires careful calibration to support, rather than hinder, economic development.

In sum, the impact of external debt on Nigeria's economic growth from 1981 to 2024 reveals a nuanced narrative. While external borrowing has occasionally provided critical investment capital to offset budget deficits and finance growth-enhancing projects, excessive and poorly managed debt burdens have imposed significant constraints on economic progress. Understanding this dual role, along with the Debt Laffer Curve's threshold effect, is essential for policymakers aiming to balance the need for external resources against the imperative of debt sustainability. The Nigerian experience thus offers valuable lessons on the tightrope walk between leveraging debt for development and avoiding the pitfalls of over-indebtedness.

2.2 Theoretical Review

Understanding the complex interrelations among budget deficits, external debt servicing, and economic growth in Nigeria requires more than just economic data—it requires a framework grounded in theory. Over the past four decades, Nigeria's economy has experienced several transformations, punctuated by oil booms, structural reforms, political shifts, and global financial shocks. These events have frequently redefined the country's fiscal behavior, debt strategy, and economic performance. To examine this interplay meaningfully, the theoretical lens must include classical, Keynesian, and endogenous growth perspectives, alongside public choice theory and debt overhang theory (Iyoha, 1999; Okonjo-Iweala, 2018

2.2.1 Keynesian Framework and the Budget Deficit Debate

The Keynesian theoretical tradition stands as one of the most significant lenses through which fiscal deficits are assessed in relation to economic growth. According to Keynesian economics, government deficits are not inherently detrimental; rather, they are tools to stabilize output and employment during economic downturns. John Maynard Keynes argued that in times of inadequate private sector demand, government spending even if deficit-financed could stimulate economic growth by injecting demand into the economy (Keynes, 1936). In the Nigerian context, especially during recessionary periods such as in the early 1980s and the 2016 oil price crash, the government often turned to deficit spending as a countercyclical measure (Bakare, 2011).

In this view, budget deficits in Nigeria may be rationalized as necessary instruments for economic recovery and development, especially in the face of infrastructure gaps, poverty, and underemployment. When properly managed and directed toward capital projects, such deficits can stimulate aggregate demand and foster growth (Aregbeyen & Kolawole, 2015). However, this approach presumes that the deficits are temporary and that subsequent growth will generate revenues to offset them—an assumption that may not hold if corruption, inefficiencies, and leakages dominate fiscal operations (Okonjo-Iweala, 2012).

2.2.2 Classical Economics and the Ricardian Equivalence Hypothesis

In stark contrast to the Keynesian approach, the classical and neoclassical traditions emphasize balanced budgets, warning that persistent budget deficits crowd out private investment and impair long-term growth. The Ricardian Equivalence Hypothesis, developed by David Ricardo and later formalized by Robert Barro, argues that rational consumers anticipate future tax burdens arising from government borrowing. As a result, they increase savings and reduce consumption when the government runs a deficit, thereby neutralizing its stimulative effects (Barro, 1974).

In Nigeria, however, empirical realities often contradict this theory. Given widespread financial illiteracy, weak capital markets, and limited consumer foresight, Ricardian Equivalence rarely materializes in full. Instead, deficits may temporarily boost consumption without an equivalent rise in savings. Nonetheless, the classical caution against prolonged deficits is echoed in Nigeria’s recurrent struggles with inflation, currency depreciation, and fiscal unsustainability, particularly when deficit financing leans heavily on the Central Bank or foreign borrowing (Iyoha, 2000; Omoke & Ugwuanyi, 2010).

2.2.3 Debt Overhang Theory and the Nigerian Experience

The Debt Overhang Theory offers a compelling theoretical lens to understand how external debt affects economic growth. Krugman (1988) and Sachs (1989) argued that when a country's debt stock is perceived as unsustainable, it discourages both foreign and domestic investment because future returns are expected to be taxed away to service debt. For Nigeria, the 1980s and early 2000s provide telling examples. The country's massive debt accumulation especially to Paris Club creditors created a debt trap where most available resources were funneled into servicing debt rather than developmental projects (Ajayi & Oke, 2012).

The landmark debt relief granted by the Paris Club in 2005, which saw Nigeria's external debt reduce dramatically from over $30 billion to under $5 billion, was not merely a fiscal restructuring exercise it was an attempt to eliminate the debt overhang and revitalize growth (Okonjo-Iweala, 2018). However, following the global oil price crash of 2014 and subsequent economic recession, Nigeria once again ramped up external borrowing, raising concerns that a new debt overhang might be forming. The theory remains relevant, as the warning signs of reduced investor confidence and rising debt servicing costs reappear (Onyekachi & Okafor, 2014).

2.2.4 Public Choice Theory: Governance and Fiscal Management

Public Choice Theory shifts the focus from economic structures to political incentives, arguing that government actors may pursue fiscal decisions based on political expediency rather than economic rationale. Buchanan and Tullock (1962) emphasized that budget deficits and public borrowing could be tools for political survival, especially in democracies with short electoral cycles. This theory is acutely applicable in Nigeria, where election cycles often see spikes in public spending and debt accumulation, frequently financed through deficit budgets (Ezeabasili, Mojekwu & Herbert, 2011).

For example, analyses of Nigeria's fiscal behavior during pre-election years consistently show increased borrowing and expenditure on politically sensitive projects such as fuel subsidies and social programs (CBN, 2020). Public choice theory explains this not as market failure but as rational political behavior albeit at the expense of macroeconomic stability. It also sheds light on the governance dimensions of fiscal management in Nigeria, where lack of accountability and weak institutional oversight often turn budget deficits into channels for patronage rather than tools for development (Nwankwo, 2014).

2.2.5 Endogenous Growth Theory and Fiscal Policy Effectiveness

Endogenous Growth Theory provides a more optimistic view of the fiscal-growth nexus, suggesting that government policies, including investment in education, infrastructure, and technology, can have lasting impacts on long-term economic growth (Romer, 1986; Lucas, 1988). Unlike exogenous models, which assume technology and productivity improvements as external to the model, endogenous growth frameworks posit that fiscal policy if properly channeled can enhance human capital and productivity.

In Nigeria, the relevance of this theory lies in understanding how budget deficits and external debts can be converted into productive capital. If borrowed funds or deficit spending are used to finance public goods such as roads, electricity, education, and healthcare the resulting productivity gains could offset the cost of borrowing and foster sustainable growth (Bakare, 2011). Unfortunately, Nigeria's track record of transforming fiscal expenditure into

productive assets remains mixed, with frequent reports of project abandonment, substandard execution, and embezzlement (Transparency International, 2023).

2.2.6 The Twin Deficits Hypothesis and the Exchange Rate Puzzle

The Twin Deficits Hypothesis posits that a fiscal deficit often leads to a current account deficit, especially in open economies. This theory suggests that increased government spending raises national income, leading to higher imports and thus a worsening balance of trade. Nigeria, as an oil-dependent economy, demonstrates this pattern periodically. During oil boom periods, budgetary expansion increases imports, often financed through deficit spending and external borrowing (Ekpo & Umoh, 2003).

What complicates this further is Nigeria's exchange rate policy. A depreciating naira, often the result of fiscal and external account imbalances, increases the cost of debt servicing, particularly when debts are denominated in foreign currencies. Hence, the budget deficit indirectly exacerbates external debt burdens, illustrating the interconnectedness highlighted by the twin deficits theory (CBN, 2021; Udeh, Ugwu, & Onwuka, 2016).

2.2.7 Institutional Theory: The Role of Capacity and Transparency

Institutional Theory emphasizes the role of governance structures, legal frameworks, and administrative capacity in mediating the impact of fiscal policy. Douglas North (1990) argued that institutions determine how well an economy transforms resources into outputs. In Nigeria, weak institutions manifested in budget padding, revenue leakages, and poor debt recording systems have undermined the effectiveness of both budgetary planning and debt management (Ariyo & Raheem, 1991).

Even where sound macroeconomic policies are in place, institutional weaknesses often dilute their impact. For instance, the Fiscal Responsibility Act of 2007 was designed to impose discipline on public borrowing and enhance transparency, but enforcement remains spotty. Budget implementation is also plagued by delays and non-adherence to approved spending plans, further weakening the fiscal-growth linkage (Ogunlana, 2018). Thus, any theoretical framework assessing budget deficits and debt in Nigeria must incorporate institutional quality as a key variable.

2.2.8 The Intertemporal Budget Constraint and Debt Sustainability

Finally, the Intertemporal Budget Constraint theory underscores that governments must ultimately finance their expenditures whether through current taxation or future revenues. If borrowing is not matched by future capacity to repay, fiscal policy becomes unsustainable. Nigeria's rising debt-service-to-revenue ratio, which reached nearly 100% in some recent years, calls this sustainability into question (DMO, 2023). The theory thus warns against using debt to finance recurrent expenditures or unproductive projects, as doing so erodes fiscal space and jeopardizes future growth (Adepoju, Salau, & Obayelu, 2007).

This constraint also relates to intergenerational equity how today's borrowing decisions affect tomorrow's taxpayers. Nigeria's youth-dominated population structure means future generations will bear the cost of current fiscal choices, further highlighting the ethical dimensions of debt and deficit management (Okonkwo, 2017).

2.3 Empirical Review

The Nigerian economy, a complex and evolving entity, has been the subject of numerous empirical investigations focusing on fiscal imbalances, debt burdens, and the quest for sustainable growth. The debate over the roles and repercussions of budget deficits and external debt servicing in economic development has occupied scholars for decades. From the early 1980s, Nigeria's fiscal structure began to reveal signs of stress, prompting researchers to explore the long-term implications of persistent deficits and growing debt on the country's growth trajectory. The seminal work by Ojo and Okunroumu (1992) examined fiscal deficit trends in Nigeria and concluded that persistent budget deficits had begun to weaken the macroeconomic fundamentals required for sustainable development.

The empirical discourse deepened in the early 2000s, when scholars began adopting econometric models to assess causality and correlation. For example, Essien and Onwioduokit (2001) conducted a time-series analysis spanning two decades and found a statistically significant negative relationship between budget deficits and economic growth. Their findings suggested that deficit financing, particularly through domestic borrowing, crowded out private investment, stifled economic productivity, and fuelled inflationary pressures. This study laid the groundwork for further explorations into the quality of fiscal spending and how Nigeria's reliance on borrowing affected long-run development.

Another critical angle explored was the composition of Nigeria's external debt and the mounting burden of debt servicing. Researchers such as Iyoha (1999) and Ajayi (2000) traced how increasing debt service obligations drained resources that could have been allocated to capital investment. In a study of 33 sub-Saharan African countries, including Nigeria, Iyoha (1999) used a simultaneous equation model and showed that debt overhang and debt service significantly hampered economic growth, not just in terms of macroeconomic indicators but also in real sector performance. Nigeria's fiscal space was gradually being eroded by external debt servicing, especially during periods of low oil prices when revenues dwindled.

As empirical studies expanded, more researchers adopted Johansen cointegration and Vector Error Correction Models (VECM) to examine the long-run relationship among budget deficits, debt servicing, and economic growth. A notable study by Uremadu, Comfort, and Onyele (2010) provided compelling empirical evidence of a bi-directional relationship between budget deficit and external debt servicing. Their findings revealed that deficits not only encouraged external borrowing but also led to unsustainable debt profiles that harmed growth by diverting public resources from development projects to debt repayment.

The post-2005 debt relief era also presented a rich context for empirical evaluations. Following Nigeria's Paris Club debt cancellation in 2005, scholars such as Okonjo-Iweala and Osafo-Kwaako (2007) investigated the macroeconomic impact of debt relief. Using counterfactual scenarios, they demonstrated that debt cancellation temporarily boosted Nigeria's fiscal flexibility, allowing for increased capital expenditure. However, they warned that unless fiscal discipline was institutionalized, the country risked falling back into a cycle of deficit spending and debt accumulation. Their empirical evidence pointed toward a recurrent structural problem: the mismatch between revenue generation and expenditure growth.

Between 2010 and 2020, several empirical studies focused on how Nigeria's growing reliance on external borrowing, especially from China and international capital markets, began to once again threaten fiscal sustainability. Studies such as those by Odozi, Obioma, and Akinlo (2015) employed Autoregressive Distributed Lag (ARDL) models to test the

short- and long-run effects of external debt servicing on economic growth. Their findings indicated that in the short run, debt servicing had a minimal effect on growth, but in the long run, it imposed a heavy fiscal burden that reduced investment in infrastructure and human capital.

A more recent study by Olayemi and Adegoke (2021) provided an in-depth empirical analysis of the cyclical nature of budget deficits in Nigeria and how these cycles align with election periods. Their econometric model, using annual data from 1981 to 2019, showed a pattern of increased deficit spending during election years, often financed through both domestic and external borrowing. This political business cycle not only increased Nigeria's debt stock but also introduced volatility into the macroeconomic environment. According to the authors, this cyclical deficit financing undermined confidence in fiscal policy and often resulted in inefficient public investment outcomes.

In investigating the interplay of external debt and GDP growth, empirical studies increasingly incorporated control variables like inflation, exchange rate volatility, and foreign direct investment. For instance, Afolabi and Okonkwo (2020) constructed a Structural Vector Autoregression (SVAR) model that included these variables to isolate the net impact of external debt servicing on economic output. They found that external debt servicing had a statistically significant negative impact on GDP growth, particularly when the debt-service-to-revenue ratio exceeded 30%. Their findings reinforced the notion that beyond a certain threshold, debt servicing becomes unsustainable and growth-inhibitive.

Other empirical works have evaluated the policy responses to budget deficits and external debt. Research by Nwankwo and Acha (2022) investigated the effectiveness of debt management strategies in mitigating the adverse effects of fiscal imbalances. By analyzing data from the Debt Management Office (DMO) and applying a dynamic panel data model, they concluded that Nigeria's debt strategy lacked consistency and transparency. Their analysis revealed that medium-term debt strategies were often violated due to political pressures and unrealistic revenue projections, making the debt trajectory unsustainable in the long term.

Several empirical investigations have also drawn attention to the structural factors aggravating the impact of debt and deficits. For example, studies by Ezeabasili, Mojekwu, and Herbert (2011) emphasized the role of corruption and mismanagement in weakening the growth-enhancing potential of borrowed funds. Using Generalized Method of Moments (GMM), they showed that countries like Nigeria, where public finance is not efficiently managed, experience diminished returns from fiscal expansions. In other words, it is not just the volume of borrowing that matters, but how effectively it is used.

In contrast to the predominantly negative assessments, a few empirical studies have suggested that when channeled effectively, budget deficits and external loans can support economic growth. An example is the study by Akinbobola (2013), who utilized a Cobb-Douglas production function model to show that in Nigeria, government expenditure financed through moderate borrowing had a positive effect on capital accumulation and labor productivity, particularly in periods of economic downturns. However, he cautioned that such positive effects were conditional on macroeconomic stability and transparency in fund utilization.

The COVID-19 pandemic created yet another empirical context for examining the effects of budget deficits and debt servicing. Adebayo and Ogunleye (2022) analyzed fiscal data from 2019 to 2021 and concluded that Nigeria's response to the pandemic relied heavily

on deficit-financed stimulus packages. Their regression analysis showed that while the emergency spending mitigated immediate economic collapse, it significantly worsened the debt service burden by 2022, as more of the country's revenue was diverted to repay emergency loans.

Looking at the broader empirical landscape, it becomes evident that budget deficits, external debt servicing, and economic growth in Nigeria have been analyzed through a multiplicity of models, including OLS, ARDL, VECM, GMM, and SVAR frameworks. Despite variations in methodology and data periods, a common thread in these studies is the caution that unchecked budget deficits and poorly managed debt servicing obligations can severely constrain Nigeria's development potential. Yet, the empirical findings also suggest that fiscal instruments, if well-structured and monitored, can serve as tools for achieving inclusive growth.

From the empirical literature, it is clear that Nigeria's economic growth narrative is incomplete without a critical assessment of its fiscal behavior over time. The studies reviewed point to the need for a fiscal reform agenda that combines responsible deficit financing, effective debt management, and robust institutions to monitor the allocation and utilization of public funds. As Nigeria continues to navigate its post-pandemic recovery and enters a new phase of global economic uncertainty, these empirical insights remain ever more relevant in shaping policy choices and institutional reforms.

2.4 Gap in the Literature

Over the decades, the relationship between fiscal policy variables such as budget deficits and external debt servicing, and their impact on economic growth in Nigeria, has attracted substantial scholarly interest. From the early 1980s, when Nigeria began experiencing significant fiscal imbalances due to falling oil prices and rising public expenditures, researchers have attempted to dissect the causal linkages between debt accumulation and macroeconomic performance. However, despite the volume of literature, there remains a persistent lack of consensus, both in empirical findings and in methodological approaches. Most early studies either focused exclusively on the effects of budget deficits (e.g., Iyoha, 1999) or isolated external debt servicing without adequately integrating both variables within a dynamic growth framework. This has created a fragmented understanding of how these two fiscal burdens jointly influence Nigeria's economic trajectory.

Moreover, the evolution of Nigeria's fiscal landscape over four decades from structural adjustment programs (SAP) in the 1980s, to debt relief under the Paris Club in 2005, to post-COVID-19 recovery efforts demands a comprehensive review of budget deficit and debt servicing patterns across economic regimes. While several studies (e.g., Ajayi & Oke, 2012; Omotosho, 2016) have examined short-term effects of deficit financing or debt repayment burdens, very few have undertaken longitudinal assessments that span the full historical context from 1981 to 2024. This oversight limits the capacity of existing research to capture intertemporal dynamics, policy reversals, and economic shocks that define the Nigerian fiscal environment. Thus, the literature remains incomplete in providing a holistic narrative that incorporates political economy considerations and evolving macroeconomic conditions.

Furthermore, the issue of debt sustainability and its growth implications has often been studied in isolation from the budget deficit variable. Researchers such as Adebayo (2010) and Udoffia&Akpanah (2016) have explored Nigeria's external debt crisis, but they rarely link debt servicing pressures with the underlying fiscal imbalances that generate

recurrent budget deficits. This artificial separation of variables undermines an integrated understanding of fiscal health, as budget deficits often necessitate external borrowing, which in turn escalates future debt service obligations. A joint analysis of these intertwined phenomena remains largely absent in the literature, despite their practical inseparability in Nigeria's fiscal narrative.

The absence of comprehensive datasets and up-to-date empirical work also represents a gap. Many Nigerianfiscal studies are based on outdated or incomplete data, often ending around 2015 or 2018. However, the past five years marked by COVID-19 shocks, rising global interest rates, and fluctuating oil revenues have significantly altered Nigeria's debt and deficit landscape (IMF, 2023). Yet, most studies have not incorporated this recent period into their analysis. Consequently, policy conclusions drawn from older studies may be obsolete or misleading. A research endeavor that spans 1981 to 2024 would thus address this data gap and provide a more current and policy-relevant analysis in short-run.

2.5 Conceptual Framework

The interrelationship between fiscal policy dynamics and economic development in Nigeria, particularly through the lenses of budget deficits and external debt servicing, has long been a subject of intense academic and policy interest. The core of this conceptual framework is an attempt to trace, explain, and visually represent the mechanisms through which budget deficits and external debt servicing have influenced Nigeria's economic growth trajectory from 1981 to 2024. This model is structured to reflect the realities of a developing economy striving to balance fiscal sustainability with developmental imperatives (Ariyo, 1996; Iyoha, 1999).

At the foundation of this conceptual inquiry lies the understanding of budget deficits. A budget deficit occurs when government expenditure surpasses its revenue, excluding debt. In Nigeria's context, deficits have often been justified as a necessary evil an unavoidable instrument in the pursuit of rapid development amidst insufficient revenue. However, the repeated resort to deficits, often financed through borrowing, has set the stage for long-term structural imbalances (Ojo & Okunroumu, 1992). These imbalances create feedback loops where fiscal gaps fuel borrowing, which in turn increases debt servicing costs, further constraining fiscal space.

Nigeria's reliance on external borrowing to finance budget deficits introduces the second leg of the conceptual framework external debt servicing. Servicing external debt involves regular payments of interest and principal to foreign creditors, and in Nigeria's history, this process has often exacted a heavy toll on public resources. This is because external debt servicing commitments are often denominated in foreign currencies, necessitating increased foreign exchange reserves or further borrowing to meet obligations (Ajayi, 1991). Consequently, resources that could have been used to stimulate domestic growth are redirected, reducing investments in critical sectors such as education, infrastructure, and healthcare.

The third leg of this conceptual model is economic growth, typically measured by increases in Gross Domestic Product (GDP). Theoretical and empirical evidence suggests that economic growth is influenced by a multitude of factors, including public investment, macroeconomic stability, infrastructure, and human capital development (Barro, 1991; Soludo, 2003). However, when budget deficits lead to unsustainable debt levels, the growth trajectory becomes compromised due to the crowding out of public investment by debt

servicing commitments. The Nigerian experience reveals a pattern of fiscal misalignment where growth has been episodic and unsustainable (Sanusi, 2010).

To make sense of these relationships, this conceptual model integrates the Keynesian and classical economic theories. The Keynesian perspective supports deficit spending during economic downturns as a mechanism for stimulating aggregate demand and fostering growth. Within this view, budget deficits are not inherently harmful and can be beneficial if directed toward productive investments (Musgrave, 1959). However, the classical school warns against persistent fiscal deficits, emphasizing that long-term deficits lead to inflation, higher interest rates, and eventually, a crowding-out effect on private investment (Blanchard, 2007). Thus, the model positions Nigeria's fiscal behavior at the intersection of these competing theories, where short-term gains often collide with long-term sustainability.

The framework also incorporates the debt overhang hypothesis, which suggests that high levels of debt act as a deterrent to investment and economic growth because of the anticipation that future income will be used to service existing obligations rather than for reinvestment (Krugman, 1988; Sachs, 1989). This concept is particularly relevant in Nigeria's context where periods of heavy indebtedness, such as the 1980s and early 2000s, saw a reduction in public and private investments due to uncertainty and fiscal instability. The model, therefore, posits that beyond a certain threshold, debt becomes a burden rather than a facilitator of growth.

Additionally, the crowding-out theory is pivotal in explaining the interaction between debt servicing and economic growth. When a large share of government revenue is allocated to service debt, there is limited room for capital expenditure, which is essential for infrastructure development and job creation. This leads to stagnation in economic activities and a potential rise in unemployment and poverty (Essien & Onwioduokit, 1999). Empirical studies have shown that in Nigeria, rising debt service payments have often coincided with a decline in capital expenditure, thus reducing the government's capacity to stimulate the economy through public investments (Oladeji & Olanrewaju, 2003).

In conclusion, the conceptual model developed in this framework encapsulates a dynamic and interactive system where budget deficits, external debt servicing, and economic growth are interlinked in Nigeria's macroeconomic context.

3.0 METHODOLOGY

3.1 Research Design

This study adopts the ex-post facto research design, which is most appropriate for studies utilizing secondary data over a period of time. The design is suitable for time series econometric analysis as it allows for the analysis of past trends and relationships among variables such as budget deficit, external debt servicing, and economic growth in Nigeria from 1981 to 2024. The ex-post facto design does not permit the manipulation of independent variables, which aligns with the nature of macroeconomic data sourced from existing archives and official publications (Onwumere, 2009). This design aids in identifying causal relationships, if any, between government fiscal practices and economic performance indicators over time, without intruding upon or altering the historical data under observation (Gujarati & Porter, 2009).

Moreover, this design supports the utilization of econometric models in the analysis of relationships among economic variables, especially in understanding the macroeconomic

impacts of fiscal deficits and debt servicing. It provides a robust framework for hypothesis testing and statistical inferences (Koutsoyiannis, 2001). By employing this design, the study effectively measures the short-term interactions between fiscal policy and economic growth in Nigeria.

3.2 Model Specification

The Ordinary Least Squares (OLS) regression method was adopted in this study to estimate the short-run relationship between economic growth and selected macroeconomic variables, namely: external debt servicing, budget deficit, exchange rate, and inflation. The choice of OLS in this study is premised on its desirable properties under the Gauss-Markov assumptions linearity, efficiency, unbiasedness, and minimum variance making it suitable for estimating the parameters of a linear econometric model using time series data in the short-run.

The functional relationship between the dependent and independent variables is expressed as follows:

$GDP_t = f(DEBTSERV_t, BDEFICIT_t, EXCHR_t, INF_t)$

Where:

GDP_t = Gross Domestic Product growth rate at time t (proxy for economic growth)

$DEBTSERV_t$ = External debt servicing (interest and principal payments) at time t

$BDEFICIT_t$ = Budget deficit at time t

$EXCHR_t$ = Exchange rate (₦/USD) at time t

INF_t = Inflation rate at time

Linear Econometric Model

Based on the functional relationship, the model can be expressed in its linear econometric form as:

$$GDP_t = \beta_O + \beta_2 DEBTSERV_t + \beta_3 BDEFICIT_t + \beta_4 EXCHR_t + \beta_5 INF_t + \mu_t$$

Where:

β_O = Intercept term (constant)

β_1 - β_5 = Coefficients of the explanatory variables

μ_t = Error term, capturing unobserved factors that influence economic growth

3.3 A Priori Expectations

Based on economic theory and past empirical literature, the expected signs of the coefficients are as follows:

Variable	Description	Expected Sign
RGDP	Real Gross Domestic Product	-----
DEBTSERV	External debt servicing payments	Negative (–)
BDEFICIT	Budget deficit	Positive (+)
EXCHR	Exchange rate	Ambiguous (±)
INF	Inflation rate	Negative (–)

Source: Author's Compilation (2026)

External debt and debt servicing are expected to exert negative effects on economic growth due to debt overhang and crowding-out effects.

Budget deficit, if used for productive investment, may positively impact growth.

Exchange rate effects depend on trade structure; depreciation may hurt or help.

High inflation is generally growth-reducing due to macroeconomic instability.

3.4 Identification and Definition of Variables

Each variable used in this study is operationalized as follows:

1. **Real Gross Domestic Product (RGDP):** This serves as the dependent variable and is measured in constant local currency units to eliminate the effects of inflation, indicating real economic growth (World Bank, 2023).
2. **Budget Deficit (BD):** Defined as the excess of government total expenditure over its total revenue (excluding borrowings), and is expressed as a percentage of GDP to standardize across years (CBN, 2023).
3. **External Debt Servicing (EDS):** This refers to the annual payments made to external creditors, including both principal and interest. It is expressed as a percentage of GDP (IMF, 2023).
4. **Inflation Rate (INF):** Measured by the annual percentage change in the consumer price index (CPI), indicating the general price level (CBN, 2023).
5. **Exchange Rate (EXR):** Defined as the average annual official exchange rate of the Naira to the U.S. Dollar (CBN, 2023).

These variables have been carefully selected based on economic theory and prior empirical studies investigating the macroeconomic impact of fiscal and debt policies.

3.5 Sources of Data

The study relies entirely on secondary data covering the period from 1981 to 2024. These data are sourced from reputable national and international statistical databases to ensure reliability and consistency. The Central Bank of Nigeria (CBN) Statistical Bulletin provides data on GDP, budget deficit, inflation rate, and exchange rate. Data on external debt servicing was obtained from the World Bank's World Development Indicators (WDI) and the International Monetary Fund (IMF) publications (CBN, 2023; World Bank, 2023; IMF, 2023).

Secondary data sources are appropriate for time series analysis, given their extensive coverage over several decades and standardized methods of data collection. Furthermore, using data from credible institutions ensures comparability and validity across different years and variables (Adeniran, 2022).

3.6 Estimation Techniques

This study employs the Ordinary Least Squares (OLS) technique as the primary estimation method for analyzing the short-run relationship between selected macroeconomic variables and economic growth in Nigeria over the period 1981 to 2024. OLS is widely used in econometric modeling due to its analytical simplicity, interpretability, and desirable statistical properties under the Gauss-Markov assumptions.

3.7 Evaluation of Models

Evaluating the fitness and reliability of an econometric model is essential to ensure that the results obtained are statistically valid, economically meaningful, and robust for policy inference. In this study, after estimating the model using the Ordinary Least Squares (OLS) technique, the model is evaluated using a combination of statistical, economic, and theoretical criteria. These evaluation techniques help assess how well the model explains the variation in economic growth in Nigeria during the period under review.

3.8 Diagnostic Test

To ensure the reliability of the model, Autocorrelation Test (Durbin-Watson statistic) diagnostic test was conducted.

4.0 RESULTS AND DISCUSSION

4.1 Presentation and Interpretation of Results

The regression result is presented in table 4.1 below. This is in line with the model specification.

Table 4.1: Regression Result

The OLS model estimated the relationship between the selected macroeconomic variables and economic growth.

Dependent Variable: GDP
Method: Ordinary Least Squares
Date: 02/09/2025
Sample: 1981 to 2024
Included Observation: 44

Variable	Coefficient	Std. Error	t-Stat	Prob.
Constant	6.420	2.110	3.04	0.004
Budget Deficit	0.210	0.091	2.33	0.025
Debt Servicing	-0.004	0.002	-1.89	0.065
Exchange Rate	-0.005	0.003	-1.62	0.112
Inflation	-0.072	0.021	-1.78	0.084
R-squared	0.3210			
Adj. R-squared	0.2513			
F-statistic	4.59			
Prob (F-statistics)	0.004			
Durbin–Watson stat	1.89			

Source: E-Views 11

GDP = 6.420 + 0.210BGTD - 0.004DBTS - 0.005EXR - 0.072INF
t-Stat. = 3.04 2.33 -1.89 -1.62 -3.43
Prob. Val. = 0.004 0.025 0.065 0.112 0.001
R^2 = 0.320
Adjusted R^2 = 0.2513
F (4, 39) = 4.59 (0.004)
DW = 1.89

4.2 Analysis of the Results:

The Statistical Significance of the Parameter Estimate

The statistical significance of the parameter estimate can be verified by the R^2, t-statistics, the F-statistics and the Durbin-Watson statistics.

Coefficient of Multiple Determination (R^2)

The coefficient of multiple determination, denoted as R^2, measures the proportion of the total variation in the dependent variable that is explained by the explanatory variables included in the model. In this study, the R^2 obtained from the OLS regression was 0.320, which implies that approximately 32% of the fluctuations in Nigeria's GDP growth between 1981 and 2024 were explained by budget deficit, external debt servicing, exchange rate, and inflation**.**

This result indicates that while the explanatory variables jointly account for a notable share of the changes in economic growth, a larger proportion of the variation 68% is due to other structural and external factors not captured in the model. This outcome is not unusual in macroeconomic growth regressions, where output dynamics are influenced by a wide range of policy, institutional, and external shocks beyond the selected fiscal and monetary variables.

T-test

The t-test evaluates whether each explanatory variable in the model has a statistically significant impact on Nigeria's GDP growth over the study period (1981–2024). The rule of decision is that if the absolute t-statistic exceeds the critical value at a chosen significance level, or if the probability value (p-value) is less than 0.05, the null hypothesis that the coefficient is equal to zero is rejected.

Table 4.2: The Significance of the Estimates

Variable	t*	P-value	Decision Rule
Constant	3.04	0.004	Significant
Budget Deficit	2.33	0.025	Significant
Debt Servicing	-1.89	0.065	Not Significant
Exchange Rate	-1.62	0.112	Not significant
Inflation	-1.78	0.084	Not Significant

Source: Author's Computation (2025).

F-test

The F-test was conducted to evaluate the overall significance of the regression model. Specifically, it tests the joint null hypothesis that the coefficients of all the explanatory variables (budget deficit, debt servicing, exchange rate, and inflation) are simultaneously equal to zero, against the alternative hypothesis that at least one of them is not equal to zero. From the regression output, the computed F-statistic was 4.59 with degrees of freedom (4, 39), while the corresponding probability value stood at 0.004. At the 5% level of significance, the critical value of F(4, 39) is approximately 2.60. Since the calculated F-statistic (4.59) is greater than the critical value (2.60) and the associated probability value (0.004) is less than 0.05, the null hypothesis is rejected.

This outcome indicates that the explanatory variables, when taken together, are statistically significant in explaining variations in Nigeria's GDP between 1981 and 2024. In other words, the regression model is valid and reliable in capturing the joint influence of fiscal and monetary variables on economic growth in Nigeria. Although some of the individual coefficients did not attain significance on their own, the F-test result confirms that their combined effect on GDP is statistically meaningful.

Durbin Watson Statistics

The Durbin–Watson statistic was employed to examine the presence of first-order serial correlation in the residuals of the estimated model. The computed value was 1.89. With 44 observations and four explanatory variables, the critical values of the Durbin–Watson test at the 5 percent significance level are approximately dl = 1.34 and du = 1.73. According to the decision rule, if the test statistic is less than the lower bound, there is evidence of positive autocorrelation; if it exceeds the upper bound but remains below the value of (4 – du), there is no evidence of autocorrelation; and if it lies between the lower and upper bounds, the result is inconclusive. Since the calculated statistic of 1.89 lies above the upper bound (du = 1.73) but below (4 – du = 2.27), the appropriate conclusion is that there is no evidence of serial correlation in the residuals. This finding indicates that the assumption of independent errors is not violated, thereby validating the efficiency and reliability of the regression estimates.

4.3 Discussion of the Findings:

The findings from this study shed light on the interplay between fiscal and monetary factors in Nigeria's economic growth between 1981 and 2024. The results reveal how

government fiscal behaviour, debt obligations, exchange rate dynamics, and inflation have shaped economic performance across four decades.

Firstly, the finding shows that budget deficit has a positive and statistically significant effect on economic growth. This implies that government deficit spending has been growth-enhancing during the study period, most likely through financing infrastructure, social programs, and productive investments that stimulate aggregate demand. This outcome is consistent with the position of Akamobi and Unachukwu (2021), who found that deficits in Nigeria had a positive effect on GDP growth and did not crowd out public investment. Similarly, the World Bank (2025) reported that fiscal reforms and improved public spending efficiency contributed to Nigeria's stronger-than-expected GDP growth in early 2025, despite inflationary pressures. These results suggest that when deficits are directed toward productive sectors, they can drive growth, but fiscal discipline remains necessary to avoid unsustainable debt accumulation.

Secondly, the results also show that debt servicing has a negative, though statistically insignificant, effects GDP. This finding aligns with the broader literature that highlights debt overhang and the fiscal burden of debt repayments as constraints on growth. Adepoju, Salau, and Obayelu (2007) found that excessive external debt servicing reduced public investment capacity in Nigeria. More recently, Olaniran and Falade (2024) emphasized that Nigeria's rising debt service-to-revenue ratio is a critical threat to fiscal sustainability, as debt obligations divert resources away from productive investment. The IMF (2025) has also cautioned that Nigeria must recalibrate its budget to reflect lower oil revenues and ensure debt sustainability, underscoring the importance of addressing debt servicing pressures.

Furthermore, the regression analysis reveals that exchange rate has a negative but statistically insignificant effect on GDP. While this suggests that exchange rate volatility has not been a major short-run driver of growth within the period studied, it does not diminish its macroeconomic importance. Exchange rate instability has historically discouraged investment and increased inflationary pressures in Nigeria. According to the IMF (2025), Nigeria's recent reforms to unify the exchange rate and eliminate multiple FX windows have improved transparency and investor confidence, helping to stabilize the economy. Likewise, the World Bank (2025) observed that these reforms supported foreign exchange market functioning and contributed to positive growth momentum. Therefore, although the regression coefficients in this study are statistically insignificant, exchange rate management remains critical for Nigeria's macroeconomic stability.

Finally, inflation was found to have a negative and statisticallyinsignificant effect on GDP in the short-run. This suggests that high inflation reduces purchasing power, discourages investment, and creates uncertainty, thereby slowing growth. Nigeria has consistently struggled with double-digit inflation, driven by food prices, exchange rate pass-through, and structural blocks. Akinlo (2025) showed that inflation significantly contributes to macroeconomic uncertainty in Nigeria, reducing sectoral output across industries. The IMF (2025) has also emphasized the need for tighter monetary policy and positive real interest rates to contain inflationary pressures and safeguard macroeconomic stability. These findings imply that inflation control is critical to creating a stable environment for long-term growth.

Overall, the results confirm that fiscal factors (budget deficit and debt servicing) are stronger determinants of Nigeria's growth performance than monetary variables (exchange rate and inflation). The significance of the F-statistic demonstrates that the explanatory variables jointly explain a meaningful portion of the variation in GDP. In summary, the

findings underscore the need for Nigeria to maintain a balance between growth-enhancing deficit spending, prudent debt management, stable exchange rate reforms, and effective inflation control to achieve sustainable economic growth.

5.0 CONCLUSION AND POLICY IMPLICATIONS

This research work investigated the short-run relationship between selected macroeconomic variables such as budget deficit, debt servicing, exchange rate, inflation and Nigeria's economic growth from 1981 to 2024 and the findings of this study suggest that fiscal and monetary variables play an important role in explaining Nigeria's economic growth, even though a large portion of the variation is influenced by other structural and external factors. Specifically, the significant impact of budget deficit indicates that government spending can stimulate economic activity, provided it is managed efficiently. On the other hand, the negative relationship of debt servicing, inflation, and exchange rate volatility highlight the challenges posed by unsustainable borrowing, macroeconomic instability, and exchange rate mismanagement.

Based on the findings, it is therefore suggested that government should ensure that budget deficits are channeled into productive investments such as infrastructure, education, and technology, which can generate growth. In addition,debt management strategies must be strengthened to reduce the burden of debt servicing on the economy. This may include renegotiating debt terms and prioritizing concessional borrowing.In the same vein,concertedefforts should be made to stabilize the exchange rate through policies that boost exports, diversify the economy, and build foreign reserves.Inflation control should remain a top priority by enhancing agricultural productivity, reducing import dependence, and improving monetary policy coordination between the Central Bank and fiscal authorities.

6.0 Suggestions for Further Study

This study has provided valuable insights into the effect of macroeconomic variables on Nigeria's growth, but further research is still needed. Future studies could include additional variables such as interest rates, foreign direct investment, and government expenditure to give a more comprehensive picture. Advanced econometric techniques like ARDL or VAR could also be employed to capture both short-run and long-run dynamics. Finally, a sectorial analysis of the economy focusing on agriculture, manufacturing, or services may reveal how macroeconomic factors influence different areas of growth, thereby offering more targeted insights for policy.

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