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Deficit Financing and Standard of Living in Nigeria

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Abstract

Empirically diagnosed here is how deficit financing impacts on living standard of Nigerians. Living standard is indicated by gross domestic product per capita while deficit financing is applied as borrowings from the (African Development Bank, World Bank, International Monetary Funds, private financial institutions) and debt service payments. Yearly time-based data taking from 1990 to 2023 were obtained for analysis from the (National Bureau of Statistics' report, Central Bank of Nigeria's statistical bulletin and Debt Management Office reports). The Autoregressive Distributed Lag (ARDL) technique is applied as the analytical method from which outcome showed that filling fiscal deficit gap from African Development Bank, World Bank, International Monetary Funds, and private financial institutions' borrowings produced positively significant effects on Nigerians' living standard indicated as gross domestic product per capita, conversely, debt repayment obligations appeared negatively significant on the regressand. The findings emphasize the significance of deficit financing as fiscal policy measure for strategically improving the country's standard of living status, but unsustainable obligation for debt service crowd investable funds, resulting in low living standard. Thus, it is necessary to highlight need for improving the country's debt management strategies by prioritizing development institutions' concessional loans; as such from the African Development Bank and the World Bank can suffice to enhance long-run standard of living, ensure targeted deployment of borrowed funds, and disciplined management of debt scale for sustainability.

Keywords: Deficit Financing, Debt Servicing, Living Standard, Sustainability, Nigeria, ARDL

JEL Classification: F34, H63, I31

Introduction

Hardly can any evident be cited from modern international economic landscape that a country is financially self-sufficient and independent to achieve its expected sustainable height of progress and better quality of life. This reality necessitates need for deficit financing by extra-market institutions of states. Deficit financing is a non-market mechanism designed to stimulate economic growth and development by filling revenue shortfalls of state budget based on expansionary fiscal policies practice. In similar sense, deficit financing is aimed to augment domestic revenues and catalyze general economic growth. Accordingly, Okoro (2013) [26] noted that deficit financing is mainly occasioned by need to propel socioeconomic fundamentals in the face of internal revenue mobilization gap which limits financing hard and soft public goods. This scenario induces sourcing funds exogenous of state coffers. In other words, governments finance capital projects by either domestic borrowing, external borrowing, or by adopting monetary mechanisms to increase circulation of funds in the economy (Ogwueleka, Uju, Amaka, Obisike & Uzoma, 2022) [22]. Thus, one of the reasons why government borrow or finance its deficit is to fulfil its function of mobilizing resources for improved standard of living coupled with strengthened economic growth and development. Therefore, deficit financing is a critical instrument of any administration for covering public spending obligations, especially when the tax revenue is inadequate (Joy & Panda, 2020) [12].

Deficit financing is a well-known policy instrument for stimulating economic activities; however, unsustainable accumulation usually leads to debt overhang due to excessive servicing obligations with implication of significant alternatives forgone on generations to come. More so, excessive debt services weaken government capacity to service debt and consequently limit

their attempts at reaching intended hard economic and social sectors' investment policies objectives (Johnny and Johnnywalker, 2018) [11]. The Neoclassical Growth model's exposition, according to Madow, Nimonka, Brigitte and Camarero (2021) [14] justify that governments need to borrow from capital sufficient sources to enhance capital accumulation process and hence increase the per capita steady-state level of output. Also, the originating implications of the global economic crises further induced countries, especially those developing ones, to borrow since they commonly face necessity to increase expenditure inhibited by downward flow of scarce capital (Ogbonna, Ibenta, Chris-Ejiogu & Atsanan, 2019) [20].

In periods of downturns, deficit financing has been championed in Keynesian thesis as mechanism for moderating undesirable economic realities in western economies. This line of thought is also supported by the post-Keynesian school; that loanable funds for revenue short-falls is one vital component of the tool-kits for addressing the economic ills, especially unemployment plaguing resource poor countries. The advocates argue that inadequate aggregate demand, mainly caused by spending deficiency orchestrated depression as witnessed during the Great Depression of 1929-1932 and recently the 2008 Global Financial and Economic crisis. Expansionary outlay enhances real goods and services demand and transmit to employment creation (Iya, 2014; Ali, Mandara & Ibrahim, 2018) [10, 1]. As Onwioduokit and Inam (2018) [28] noted, prolonged foreign debt adoption may extend severe influence on a country's living standard as hiked interest rates stifle private investment. By its importance, deficit financing is considered a policy element for boosting economic activities by growing non-market spendings over its revenue (Ughulu and Ughulu, 2020) [31]. In addition, Okah, Chukwu and Anwude (2019) [23] assert that sustained utilization of deficit financing via issuance of 'high-powered money' may not guarantee achieving intended broad economic goals; this may implicatively undermine potential market-based investment and, consequently undercut living standards.

However, external borrowing to augment government's outlays is an integral aspect of Nigeria's budgetary policy. It encapsulates borrowings from multilateral organization; like the African Development Bank (AfDB), World Bank, International Monetary Fund (IMF) and domestic private financial institutions. While such fund is targeted at growth stimulation and development, it is usually accompanied by non-negligible challenges thus, weakening standard of living in Nigeria. Specifically, continuous borrowing from multilateral lenders contributes to Nigeria's rising external debt. As of 2023, Nigeria's public debt was in the region of $103.11 billion, with AfDB accounting for a significant portion. Also, accessed loans from the World Bank as at October 2024 contributed active investment of $12.2 billion to the nation's hiking debt while by December 31, 2024, Nigeria's outstanding purchases and loans from the IMF had amounted to $613.62 million Special Drawing Rights (SDR). In addition, by June 30, 2024, Nigeria's total public debt stood at ₦134.30 trillion (US$91.35 billion), with domestic debt accounting for ₦71.22 trillion (US$48.45 billion), representing approximately 53.05% of the aggregate. Consequently, the climbing debt number necessitates higher debt service obligations, which can strain national budgets and culminate in crucial scarce resource diversion from critical sectors (health care, education and development of infrastructure). Such diversion weakens pursuit of growth and development goals, such as gross domestic product (GDP) per capita and Human Development Index (HDI). According to the IMF, Nigeria's GDP per capita plunged from $877.07 in 2024 to $835.49 in 2025, indicating a 4.74% weakening. The report infers that, despite towering external borrowings, the average Nigerian's share of economic output nosedived, conjecturing that borrowed funds may not have been effectively translated into inclusive economic growth. More so, the country's standard of living numbers has remained a major socioeconomic concern despite being acclaimed one of Africa's largest economies. Existing National Bureau of Statistics data (Central Bank of Nigeria, 2024) [4] stated that over 133 million Nigerians (in the region of 63% of the population) are multidimensionally poor, with incapacity to access education, healthcare, housing, and basic infrastructure. Sequel to the preceding context, this study is designed to empirically diagnose the effect of deficit financing on the living standard of Nigerians.

Deduced from the composite background, the study specifically sought to analyze how accessed loans from:

1. African Development Bank,
2. World Bank,
3. International Monetary Fund,
4. domestic private financial institutions, and
5. debt service payment influenced living standard in Nigeria as indicated using gross domestic product per capita.

Literature Review

Theoretical Framework

Necessary theoretical expositions have been put forward by myriads of scholars in respect to the topic under review. Selected associated theories as applicable in forming the constructing block to the research are discussed in this section:

a. Neoclassical Theory of Deficit Financing

Economists in the Neoclassical family suggest existence of negative correlation between fiscal deficits and economic development. Fiscal deficits increase current consumption by transferring tax associated burden to future generations. Supposing that available resources are exhaustively utilized, the Neoclassicals contends that high consumption transmits to less savings (Ayuba and Khan, 2019) [3]. The ensuing incremental rate of interest, in turn, causes plunging private investment, domestic output, and culminate in soaring price levels. Increased public sector is associated with increased price of loanable resources, attributable to oversized extra-market institutions' demand, with the market side of the economy shrinking and reducing investment consumption. This suggests that, broadening extra-market economic activities in Africa debilitate the non-public (private) sector. In addition, the palpable scenario of unfavourable resource concentration issue concerning developing economies (like Nigeria) which limits private sector robust activeness, growth in government's demand for loanable funds impairs private sector real productive actions. This strengthens the position of Ayadi and Ayadi (2015) [2], which is core part of the neoclassical assertion that excessive public borrowing limits private sector players' investments.

b. Keynesian Theory of Budget Deficit

Keynes (1936) [13] in his proposition put forward the budget deficit idea. This scholar assumed the likelihood of some economic resources remaining untapped, and the sensitivity of 'aggregate consumption to after-tax incomes variability'. Economists in this school opine that expansionary public sector outlay from loans propels endogenous real economic demand but may exacerbate loan price with consequent of repelling market driven (private sector) investment and growth. And that fiscal deficit adversely affects external components of an economy in terms of trade deficits. More so, Keynes emphasized that borrowing in necessarily critical in period when the economy is in downturns, characterized by wider savings against private sector capital and employment needs. Furthermore, considering that the magnitude of deficit an economy experiences is high, financing via compulsory levy (tax revenue) mobilization or outsourced loans is tantamount to public sector dominating utilization of available real resources that would otherwise have been accessible to the private sector. This is buttressed by corresponding that investment demand could possibly be undermined by skyrocketing foreign debt accompanied by idle domestic capital. However, where non-market's borrowed liquid capital is employed in production drivers, the expectation is 'overall efficiency' where 'social return (gains) from public expenditure exceeds private opportunity cost'. In other words, loan-financed public spending can on one hand relegate private sector economic activities (crowding-out consequence), and on the other hand encourage market-based economic progress if such resources are deployed to provide productive assets.

Empirical Review

Ololu-Briggs and Samson (2023) [27] investigated how Sub-Saharan African economies performed by mobilizing deficit finance for period 1986-2021. Expositions from the Hausman's analysis evidenced panel fixed-effects approach as the more applicable. It indicated short-run association at the conventional significance basis of 0.05 per cent, thus amongst majority of Sub-Saharan African economies, external reserves and domestic borrowings palpably exude adequate propelling implication on GDP, with external debt and budget deficit moderately retarding GDP.

In evaluating the effect of deficit financing on the Nigeria's growth by sampling from 1981 to 2019, Stephen, Edogiawerie, and Abubakar (2023) [29] employed the fully modified version of Ordinary Least Squares empirical process for estimation. Their discovery revealed the nation's 'domestic debt, budget deficit, exchange reserves, and supplied broad money' propellants of economic growth whereas external debt component trivially weakened the economy's growth. Ogwueleka, Uju, Amaka, Obisike, and Uzoma (2022) [22] reported from their research outcome that by utilizing the Lagged Autoregressive Distributed Bounds specification for data period 1984-2019, that aggregative financing of deficit stimulates Nigeria's growth. Thus, suggesting adoption of disaggregated policy approach for deficit financing management. To ascertain how Nigeria's budget revenue shortfall financing influenced her economic development trajectory, (Oko & Etim 2022) [24] in their application of the 'Ordinary Least-Squares' and descriptive specifications for 2011 to 2020 data, established that borrowing to finance deficit worsens price level of goods and services. Studying the economic recovery consequences of Nigeria's deficit financing actions over 1981-2019, Ugwuanyi, Onoh, and Agbaeze (2021) [32] applied the Johansen version of cointegration procedure, which established that deficit financing by taking domestic and external debts greatly supported recovery but that the domestic borrowing is more effective.

In addition, Ogwu (2023) [21] applying the lagged Autoregressive Distributed estimation process on 1981 to 2022 data horizon, diagnosed how 'deficit financing and debt servicing influenced Nigeria's economic development'. The examined outcome attributed low short and long terms Human Development Index to rising CSD, GED, INF, and INTR, while GDD is reported to have only long run enhancement on the regressand within sampled year period. Tosan Jakpa and Osho-Itsueli (2020) [30] examined how deficit financing and macro-economic performance, represented by GDP relates as sampled in 1990-2019. The utilized ARDL specification outcome showed long-run relations with the economy being positively impacted by domestic money supply but negatively by inflation and fiscal deficit. Mohammed and Abubakar (2020) [16] diagnosed how asymmetrical deficit-financing is with growth. Adopting quarterly Nigerian data sample of 2000-2019 by applying the nonlinear ARDL procedure, the systematic outcomes results indicated exertion of positive and negative deficit financing implication on growth, where negative innovations is stronger. Nonetheless, poor savings and institutional quality also evidently retarded the economy as reported. Through OLS estimation technique, Igudia (2021) [9] substantiated external debt servicing data for 1960-2019 to unravel its influence on Nigeria's human capital growth. It is evidently cleared that debt servicing scarce resources undermined investment for developing human capital but real external borrowing exerted growth influence. Empirically examining deficit financing effect on Nigeria's economic growth for 1981-2016, Ifeanyi and Umeh (2019) [8] availed themselves of the composite processes of the Johanson Co-integration estimation, thereby producing the outcome that deficit financing by external borrowing distresses growth; domestic debt spurs growth while debt service cost plunges growth. In similar study for Nigeria, applying the ARDL specifications for sample data 1981-2016, it was shown that government deficit finances significantly improved growth output (Ali, Mandara & Ibrahim, 2018) [1].

Investigating the implication of financing public-sector budget-deficit on Nigeria's economic growth over 2003 to 2018 estimating the log-linear real GDP model, the study established that real growth of the economy is encouraged by bank credit and non-bank public credit, whereas ways and means is counter-productive. More so, financing public sector deficit via external source produced negatively underwhelming influence (Ejike & Nwankpa, 2022) [7]. The article by Mojeed (2021) [17] conducted asymmetry study utilizing nonlinear ARDL model to ascertain the empirical link between budget deficit and economic growth in Nigeria. Estimating the 1981-2018 data, the results revealed short and long-run asymmetries in the variables, as well as inverse growth influence from budget deficit to growth. In assessing how budget deficit influence economic growth, Mohammed and Likita (2021) [15] diagnosed data sets covering 1985-2020 by using the tools of lagged Autoregressive Distributed cointegration and Granger causality testing processes. Reporting mixed outcomes, the researchers

established insignificant regressive effect from state budget deficit, theoretically incongruent positive but minor effect from inflation and positively substantial implication from government expenditure to growth. Looked into how budget deficit influences Nigeria's output growth, the applied autoregressive distributed lag specification on data sample of 1981-2019 established that the economy's growth is encouraged by deficit budgeting, interest rate exhibited inversely critical impact whereas the effect from exchange rate in infinitesimal (Umaru, Aliero & Abubakar, 2021) [33]. In a study to ascertain how deficit budgeting influences Nigeria's public-health outcomes, Chinedu, Chinedu, and Ugochukwu (2021) [6] employed the methodological process of error-correction specification on sample data for 1980-2018. The results show that: deficit spending insufficiently improved health sector outcome; funds borrowed from foreign source for revenue shortfall financing had trivially retarded the health sector; and endogenous borrowing to fill deficit remarkably spurred performance of the sector.

More so, the study by Chigbo (2021) [5] was devoted to fiscal deficit with impact emphasis on growth in Nigerian economy. Adopting the Error-Correction estimation procedure in principle, the researchers revealed that the nation's external debt, aggregate revenue and cost of borrowing are the strongest factors of growth, with the best ECM represents the relationship of growth performance with fiscal deficit. In empirically demystifying how fiscal deficits played out on economy-wide variables by using Nigerian quarterly data for 2000-2015. The estimated Autoregressive Distributed Lag product made apparent that the nation's revenue deficits greatly impact on external debt and inflation. The paper concludes that fiscal deficits are very essential in the determination of broad economic performance (Okoro & Oksakei, 2020) [25]. Reporting the outcome of a systematic examination of Nigeria's growth effect of public debt, Nzeh (2020) [19] utilized the lagged Autoregressive Distributed study on sample data of 1981-2018, and the study discovered short term and long run public debt growth impact on the economy with extra market debt beyond 40.2 percent causing dwindling effect on growth. Utilizing the Johansen co-integration and granger causality models on data for sample period 1981 to 2015, Nwakobi, Echekoba, and Ananwude (2018) [18] established that fiscal deficit does not have any meaningful impact on GDP, money supply and inflation.

Literature Gap

The theoretical and empirical excursions into related researches about how deficit financing influenced standard of living in Nigeria has been provided in this chapter. Based on the studied empirical literatures, existence of empirical properties about deficit financing and nation's economic growth were accessed globally but interestingly, none of the study linked deficit financing to standard of living in Nigeria context. Moreover, none of the related studies covered up to 2023. Sequel to the revelations, the current study aimed to systematically ascertain how endogenous and exogenous sources of financing extra market revenue deficit impacted Nigerian's standard of living. The researcher, as a matter of necessity also extend the time scope of the study to 2023 to ensure capturing more recent data for Nigeria's deficit financing and standard of living indicators.

Methodological Process

Research Design

This study explored an *ex-post facto* design for the research, which for this study is considered suitable since the research will rely on available historical data; that is, the data to be analyzed are already subsisting, implying that the researchers have no influence to manipulate such numbers to satisfy personal line of thinking. Therefore, in this research, thirty-four (34) years yearly interval series of data on the variables for 1990 to 2023 were estimated, having been gathered from the Bureau of Statistics reports of the nation (NBS), the statistical bulletin of Nigeria's apex bank (CBN), as well as the Debt Management Office (DMO) reports.

Model Specification

Theoretical, the model for this study is anchored on the Neoclassical Theory of Deficit Financing while the empirical model of the study modified that of Ogwueleka, Uju, Amaka, Obisike and Uzoma (2022) [22]. Functionally, the adjusted model is stated as follows:

$$GDPPC = f(BADB, BWBK, BIMF, BPFI, DSP) \quad (3.1)$$

Model (3.1) above is transformed into a mathematical model with the introduction of regression intercept and parameters as follows:

$$GDPPC = \delta_0 + \delta_1 BADB + \delta_2 BWBK + \delta_3 BIMF + \delta_4 BPFI + \delta_5 DSP \quad (3.2)$$

More so, the preceding (3.2) is altered to an econometric model by introducing an error term as specified below:

$$\log GDPPC = \delta_0 + \delta_1 \log BADB + \delta_2 \log BWBK + \delta_3 \log BIMF + \delta_4 \log BPFI + \delta_5 \log DSP + \mu_t \quad (3.3)$$

The Theoretical Expectation: $\delta_1 > 0$; $\delta_2 > 0$; $\delta_3 > 0$; $\delta_4 > 0$; $\delta_5 < 0$

Where: GDPPC = Gross domestic product per capita, BADB = Borrowings from African Development Bank, BWBK = Borrowings from World Bank, BIMF = Borrowings from International Monetary Fund, BPFI = Borrowings from private financial institutions, DSP = Debt service payments. All variables are expressed in billion Naira except per capita GDP which is in US Dollars. δ_0 = Intercept of the Regression Line, δ_1 = Coefficient of borrowings from African Development Bank, δ_2 = Coefficient of borrowings from World Bank, δ_3 = Coefficient of borrowings from International Monetary Fund, δ_4 = Coefficient of borrowings from private financial institutions, δ_5 = Coefficient of debt service payments, μ_t = Error term

Data Analysis Techniques

Data gathered for research purposes are meaningless if not

analyzed. Therefore, the annual time series data obtained for this study is estimated with the instrumentality of Autoregressive Distributed Lag (ARDL) method. This adoption is justified as all assessed outcomes of the variables using unit root showed mixed integration characterized by 'I(0) and I(1)' orders of stationarity. Moreover, data analysis was carried out through the use of EViews 12.0 estimation software, which is a quantitative time series measurement software package for econometric application.

Analyses Results and Discussions

Pre-Estimation Tests

Unit Root Results

To ascertain the data set's stability behaviour, this study applied the Augmented Dickey-Fuller analytical mechanism aimed at overcoming spurious outcomes. Therefore, the estimates are scheduled in Table 1:

Table 1: Augmented Dickey-Fuller Diagnostic Results

	At Levels		At First Difference			
Variables	**ADF.**	**Mackinnon 5% Critical Value**	**ADF.**	**Mackinnon 5% Critical Value**	**Remark Stationary @**	**Order**
LOG(GDPPC)	-0.806733	-2.957110	-4.870188	-2.957110	1st Diff.	I(1)
LOG(BADB)	-1.426385	-2.954021	-7.990304	-2.957110	1st Diff.	I(1)
LOG(BWBK)	-0.836828	-2.954021	-7.306607	-2.957110	1st Diff.	I(1)
LOG(BIMF)	-0.583545	-2.954021	-7.525078	-2.957110	1st Diff.	I(1)
LOG(BPFI)	-1.573306	-2.954021	-9.148454	-2.957110	1st Diff.	I(1)
LOG(DSP)	-3.600877	-2.954021	-	-	Level	I(0)

Source: Researchers' Computation (EViews 12), 2026

Evident in Table 1 above, debt service payment (DSP) got integrated of order zero which is I(0) since it has no unit root at level. Contrary to the preceding outcome, the Augmented Dickey Fuller test statistic showed per capita gross domestic product (GDPPC), borrowings from African Development Bank (BADB), borrowings from World Bank (BWBK), borrowings from International Monetary Fund (BIMF) and borrowings from private financial institutions (BPFI) are by ignoring their negative signs greater than their critical values, suggesting that these quantitative variables as earlier mentioned characteristically had unit root but subsequently exhibited stationarity after first differencing indicated as I(1). Sequel to the stationarity test expositions, the variables were stable in mixed orders, both at level and first differences, which are symbolically of orders zero [I(0)] and one [I(1)] stability. This thus permits proceeding to determine the presence or absence of long run stability relationship between the change causing variables and the regressand in the equation by applying the ARDL based bounds cointegration diagnosis.

Bounds Cointegration Diagnostic Results

The ARDL based Bounds cointegration diagnostic outcomes are scheduled in Table 2 below:

Table 2: Bounds Diagnostic Results

Null Hypothesis: Long-Run Associations Do Not Exist			**Critical Bounds' Values**	
	Value	Significance	I(0)	I(1)
F-stat.	5.930329	10%	2.08	3
K	5	5%	2.39	3.38
		1%	3.06	4.15

Source: Researchers' Computation (EViews 12), 2026

The Bounds stability diagnosis result displayed in Table 2 indicates evidence of long-run stable association among the investigated quantitative variables. As computed revealed F-statistic of 5.930329 is greater than both established lower and upper critical values stated as (I(0) and (I(1) respectively across all levels of significance (10%, 5%, and 1%). Specifically, at the 5% level, the calculated values of 2.39 and 3.38 as the respective lower and upper critical thresholds are apparently smaller than the F-statistic estimate. This outcome accentuates rejection of the null hypothesis stated as "no long-run relationships exist", confirming that Gross Domestic Product per capita, Borrowings from the Development Bank of African, borrowings from the World Bank, borrowings from International Monetary Fund, borrowings from domestic Private Financial Institutions, and funds for Debt Service Payment share cointegrating relationship over the study period. In economic terms, this result suggests that the adopted deficit financing components, applied as borrowings from multilateral institutional funds and domestic sources with funds for debt servicing are of long-run equilibrium associations living standard in Nigeria, proxied by Gross Domestic Product per capita. It implies that although short-term fluctuations may occur, over time these financing measures and debt obligations collectively influence the trajectory of living standards. Thus, policymakers must recognize that loanable funds from domestic and external sources, alongside commitments for servicing debt, play critical roles in shaping Nigeria's long-run standard of living.

Short-Run and Long-Run Autoregressive Distributed Lag Estimates

The estimation outcomes for short-run and long-run ARDL are scheduled in Table 3:

Table 3: Estimated Short and Long Runs Coefficients

	Caused Variable = LOG(GDPPC)			
Variables	**Coefficients**	**Std. Errors**	**t-Statistics**	**Probs.***
DLOG(GDPPC(-1))	0.750359	0.150762	4.977096	0.0002
DLOG(BADB)	0.168001	0.050549	3.323541	0.0034
DLOG(BWBK)	0.377423	0.091456	4.126820	0.0009
DLOG(BWBK(-1))	-0.069865	0.040362	-1.730948	0.1040
DLOG(BWBK(-2))	0.159952	0.070395	2.272220	0.0382
DLOG(BIMF)	0.226993	0.060770	3.735267	0.0020
DLOG(BIMF(-1))	-0.154495	0.064107	-2.409982	0.0292
DLOG(BPFI)	0.510454	0.083370	6.122766	0.0000
DLOG(DSP)	-0.400881	0.139887	-2.865751	0.0118
DLOG(DSP(-1))	-0.128807	0.116146	-1.109001	0.2849

DLOG(DSP(-2))	-0.216539	0.120196	-1.801546	0.0917
CointEq(-1)*	-0.710125	0.114421	-6.206225	0.0000
Adj. R-squared = 0.756825; D-W Stat. = 1.849426				
Caused Variable = LOG(GDPPC)				
Variables	**Coefficients**	**Std. Errors**	**t-Statistics**	**Probs.***
LOG(BADB)	0.130573	0.060080	2.173332	0.0462
LOG(BWBK)	0.960127	0.197256	4.867412	0.0002
LOG(BIMF)	0.617406	0.189691	3.254807	0.0053
LOG(BPFI)	0.078653	0.024130	3.259597	0.0053
LOG(DSP)	-0.542484	0.039912	-13.59188	0.0000
C	8.964274	0.557470	16.08027	0.0000

Source: Researchers' Computation (EViews 12), 2026

The scheduled Autoregressive Distributed Lag (ARDL) estimates in Table 3 offer comprehensive insight into the dynamics short and long runs' influences of proxies for financing deficit such as; borrowings from the Development Bank of African (BADB), Borrowings from World Bank (BWBK), borrowings from International Monetary Fund (BIMF), borrowings from Private Financial Institutions (BPFI), and debt service payment (DSP) on standard of living in Nigeria as measured by per Capita Gross Domestic Product (GDPPC). The model also provides statistical indicators such as the adjusted R-squared, Durbin-Watson statistic, and probability of the F-statistic to evaluate robustness. Each coefficient shows the direction and magnitude of the relationship, while the probability results define the estimates' statistical significance status.

Borrowings from African Development Bank (BADB)

In the short run, coefficient of borrowings from the African Development Bank (BADB) is 0.168001(0.0034) with p-value in parenthesis indicating positively significant influence on Gross Domestic Product per capita. This means that as Nigeria increases borrowing from BADB, her people's living standard, proxied as per capita GDP improves. More so, from the long run evaluations, borrowing from the African Development Bank (BADB) continues to exhibit a positive 0.130573 coefficient and calculated probability is 0.0462, reinforcing how African Development Bank loans support sustainable improvements in welfare. This reflects the focus of borrowing from the African Development Bank (BADB) on infrastructure and human capital projects, which contribute positively to economic productivity and household incomes, hence, living standard.

Borrowings from the World Bank (BWBK)

Borrowings from World Bank (BWBK) exhibits short run mixed effects. Specifically, the current impact is positive with coefficient of 0.377423 (p = 0.0009), but the one-period lag [BWBK(-1)] is negative at -0.069865 (p = 0.1040, insignificant), while the two-period lag [BWBK(-2)] improved to a positive 0.159952 (p = 0.0382) outcome. This suggests that while World Bank borrowing initially boosts GDP per capita, improper utilization or repayment obligations may reduce its impact in the following period, though benefits are enhanced after adjustments. In the long run, however, borrowing from World Bank (BWBK) had strong positive coefficient of 0.960127 (p = 0.0002), showing that, when properly managed, such loans significantly enhance long term standard of living through large-scale development projects.

Borrowings from International Monetary Fund (BIMF)

Borrowings from the Funds (BIMF) showed short-run positive coefficient of 0.226993 (p = 0.0020), indicating that IMF loans support GDP per capita growth in the immediate period. However, the one-period lag [BIMF(-1)] reveals a negative coefficient of -0.154495 (p = 0.0292), suggesting that repayment burdens or conditionalities reduce its positive effect in subsequent years. In the long run, borrowing from the International Monetary Fund (BIMF) remain positive with a coefficient of 0.617406 (p = 0.0053), signifying that IMF borrowings to Nigeria for fiscal stability ultimately strengthens Nigeria's living standards when properly managed.

Borrowing from Private Financial Institutions (BPFI)

Borrowing from private financial institutions (BPFI) exerts highly significant and consistent positive short and long runs' effects. The revealed short run's coefficient is 0.510454 with clearly significant p-value of 0.0000. This signaled current period GDP per capita gains as domestic private loans provide resources for economic activities. Similarly, the long run's effect remains positively contributory with 0.078653 coefficient and p = 0.0053. Although the magnitude of the long-run impact is smaller compared to the short run, it still shows that private sector source for financing deficit plays essential role in enhancing economic progress and improving living standards in Nigeria.

Debt Service Payment (DSP)

Debt service payments (DSP) consistently exert inverse influence on GDP per capita. The short run's contemporaneous coefficient is -0.400881 (p = 0.0118), showing that higher debt servicing reduces funds available for investment in social and economic infrastructure, thereby reducing living standards. Although DSP(-1) and DSP(-2) are respectively negative (-0.128807 and -0.216539), their effects are statistically weak at the 5% benchmark. This aspect of the study also indicated long run's strong negative -0.542484 (p = 0.0000), confirming that rising debt service obligations significantly erode welfare improvements, highlighting the burden of debt sustainability challenges on Nigeria's economy.

In addition, the calculated coefficient of the adjustment Speed term (Error Correction Term), symbolized as CointEq (-1) = -0.710125 and its p -value = 0.0000, shows agreement with theoretically negative expectation with statistically strong impact. This is suggestive that with around 71 percent speed of adjustment, 'disequilibrium in GDP per capita' is corrected annually, thus fast restoration of long-run living standard stability is achieved whenever shock arises. This high rate of adjustment underscores the stability of the ARDL model, and demonstrates how the nation's standard of living is strongly influenced by the short and long run's performances of the adopted critical deficit financing indicators.

Furthermore, the model demonstrates a high explanatory power as the calculated adjusted R-square is 0.756825. Suggesting the regressors such as loans from 'the World Bank, African Development Bank, International Monetary Fund, private financial institutions, and the associated debt service payments' accounted for 76% region of GDP per capita changes. The overall stability of living standard model is strong. The dependability of the estimates is

strengthened by the Durbin-Watson statistic of 1.849426, which is near 2, indicating there is no autocorrelation concern in the residuals. Thus, the model is robust and suitable for policy recommendations.

Post-Estimation Tests

This study conducted diagnostic tests to determine how reliable and valid the analyzed empirical results are. The conducted diagnostic tests' outcome are as presented hereunder:

a. Normality Test

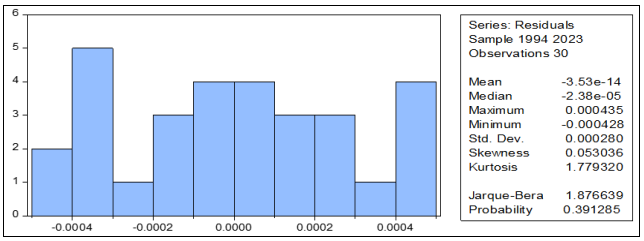

Fig 1: Normality Test Result

The normal distribution null hypothesis was tested using Jarque-Bera mechanism. Given that the probability value (0.391285) in figure 4.1 is higher than 5%, we maintain the null hypothesis and draw the conclusion that the estimates' residuals are distributed normally.

b. Serial Correlation Analysis Result

Table 4: Breusch-Godfrey Serial Correlation LM Diagnosis outcome

F-stat.	DF	P-Value	Decision
1.532348	Prob. F(2,19)	0.2526	The null hypothesis of no serial correlation is retained

Source: Researchers' Computation (EViews 12), 2026

At the 5 percent benchmark, the stated null hypothesis of no serial correlation was tested using the Breusch-Godfrey's LM method, and based on the calculated probability of 0.0994, which is above 5%, postulated no serial correlation hypothesis is maintained.

c. Heteroscedasticity Analysis Result

Table 5: Breusch-Pagan-Godfrey Heteroscedasticity Diagnosis outcome

F-statistic	DF	P-Value	Decision
1.194853	Prob. F(9,21)	0.3674	Retain homoscedastic null hypothesis

Source: Researchers' Computation (EViews 12), 2026.

At the five percent significance level, the null hypothesis that there is no heteroskedasticity was tested by applying the Breusch-Pagan-Godfrey's method. The outcome certified the working hypothesis, indication the model's freedom from heteroskedasticity since the probability of the Breusch-Pagan-Godfrey Heteroscedasticity calculated as 0.3674 is above 5%.

d. Ramsey RESET Analysis

Table 6: Ramsey RESET Test Result

F-statistic	DF	P-Value	Decision
0.530939	14 (1,14)	0.4782	Retained null hypothesis of correct specification

Source: Researchers' Computation (EViews 12), 2026

At the five percent significance benchmark, the correct specification null hypothesis was tested by applying as reported. Since the Ramsey RESET statistics' probability result of 0.4782 is above 5%, the correct specification assumption of the model is chosen to be maintained.

e. CUSUM Diagnosis for Results Stability

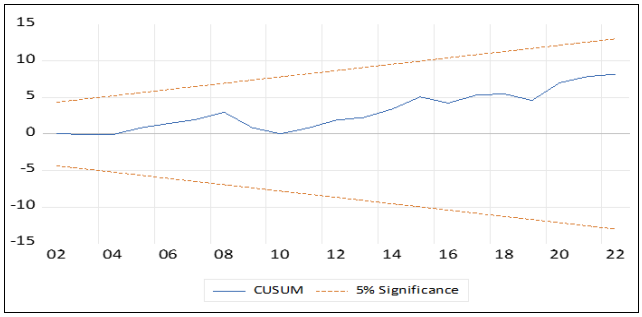

Fig 2: Cumulative sum (CUSUM) Diagnosis

The cumulative sum diagnosis was applied to ascertain if the error correction model is properly fitted. As established, the coefficient estimates are stable as the displayed CUSUM line fall within the 5% stability boundaries, shown as the two red lines in Figure 4.2. This demonstrates the model's stability without spuriousness.

Results Discussion

As evident from the research outcomes, African Development Bank (BADB) loans to Nigeria had positively strong impact on per capita Gross Domestic Product and aligns with theoretical expectation. This is consistent with Onwioduokit and Inam (2018) [28], who found that multilateral development bank loans in Nigeria contributed positively to infrastructural development and economic performance. Additionally, the study's short and long runs' findings revealed World Bank's loans to Nigeria to have significantly improved living standard capture here as GDP per capita. This outcome is as found by Olulu-Briggs and Samson (2020), who argued that while World Bank facilities support macroeconomic stability, the short-term austerity measures they impose may slow welfare improvements. Therefore, the long-run positive relationship found here is in line with economic expectations and scholarly evidence. More so, borrowings from International Monetary Fund as earlier reported had significantly positive influence on Nigeria's per capita gross domestic product. This finding mirrors Oladipo and Akinbobola (2019), who documented that IMF loans provided temporary fiscal relief but also led to contractionary effects on consumption and social spending in Nigeria. Furthermore, the study's findings

showed domestic private financial institutions' loan to Nigeria as significantly propelled Nigeria's GDP per capita. This supports the research of Oko and Etim (2022) [24], who highlighted that Nigeria's growing debt service-to-revenue ratio restricts the country's ability to spend on infrastructure, health care, and education. Finally, the study's findings showed that in short and long terms, Nigeria's per capita gross domestic product is significantly weakened by debt service obligations. The results are consistent with those of Mojeed (2021) [17], whose research reported Nigeria's economic development as negatively influenced by debt service payments.

Concluding Remark and Policy Recommendations

Having embarked on empirical journey to ascertain how deficit financing influence Nigerian's living standard, and following the specific research outcomes that African Development Bank's loans, World Bank's loans, the Fund's borrowings as well as private domestic financial institutions' borrowings to Nigeria exhibited individual and joint strong positive effects on Nigeria's per capita gross domestic product status with inverse servicing obligations, this research deduced that deficit financing is critical for strategically improving standard of living in Nigeria.

Predicated on the outcomes and conclusion, the research necessarily suggests the following policy actions:

1. Nigeria ought to improve its debt management strategies by prioritizing concessional loans from development institutions such as the African Development Bank's and the World Bank's loans Nigeria, which were found to have positive long-run effects on standard of living.
2. Government should restructure existing debt, and implement policies that expand domestic revenue generation to reduce the high debt service-to-revenue ratio, which significantly undermines welfare.
3. Loans, particularly from private financial institutions and multilaterals, should be directed toward infrastructure, health, education, and technology, as these sectors enhance productivity and welfare outcomes for enhancing living standard.
4. There should be enhancement of transparency and accountability by strengthening institutional mechanisms aimed at limiting diversion of borrowed funds but ensure mobilization to projects with measurable impacts on gross domestic product per capita per capita.
5. **There should be adoption of sustainable borrowing practices by i**mplement fiscal rules that limit borrowing to levels that are sustainable relative to Nigeria's revenue capacity, thereby preventing welfare losses linked to excessive debt servicing.

References

1. Ali MB, Mandara B, Ibrahim MA. Impact of deficit financing on economic growth in Nigeria. Global Journal of Management and Business Research: Economics and Commerce. 2018; 18(3):1.0.
2. Ayadi FS, Ayadi FO. The Impact of external debt on economic growth: A comparative study of Nigeria and South Africa. Journal of Sustainable Development in Africa. 2015; 10(3):67-81.
3. Ayuba IK, Khan SM. Domestic debt and economic growth in Nigeria: An ARDL Bound test approach. Economics and Business. 2019; 33(1):88-99.
4. Central Bank of Nigeria. Statistical bulletin. Abuja; CBN, 2024.
5. Chigbo NC. Fiscal deficit and Nigeria economic growth (1990-2020). International Research Journal of Management, IT & Social Sciences Available. 2021; 8(5):411-433.
6. Chinedu AU, Chinedu DO, Ugochukwu RI. Impact of government budget deficits on public health sector output in Nigeria. World Journal of Advanced Research and Reviews. 2021; 11(2):350-364.
7. Ejike I, Nwankpa G. Implications of public sector budget deficit financing on economic growth in Nigeria: 2003-2018. J Eco Res & Rev. 2022; 2(2):147-155.
8. Ifeanyi ON, Umeh GN. Deficit Financing and Economic Growth: The Nigerian Experience. International Journal of Economics and Financial Management. 2019; 4(1):90-112.
9. Igudia O. Deficit financing and economic growth in Nigeria: Empirical evidence and policy implications. Journal of Economic Development and Policy. 2021; 12(1):78-92.
10. Iya IB. Empirical analysis of the effects of fiscal deficits on economic growth in Nigeria. International Journal of Emerging Technology and Advanced Engineering. 2014; 4(8):120-139.
11. Johnny N, Johnnywalker W. The relationship between external reserves and economic growth in Nigeria (1980-2016). International Journal of Economics, Commerce and Management. 2018; 6(50):213-241.
12. Joy D, Panda S. Deficit financing and macroeconomic performance: A review of theoretical and empirical evidence. International Journal of Economics and Financial Research. 2020; 6(5):112-124.
13. Keynes JM. The general theory of employment, interest and money. Macmillan, 1936.
14. Madow N, Nimonka B, Brigitte KK, Camarero M. On the robust drivers of public debt in Africa: Fresh evidence from Bayesian model averaging approach. Cogent Economics & Finance. 2021; 9(1):186-198.
15. Mohammed IG, Likita JO. An evaluation of budget deficit on economic growth in Nigeria: Empirical Evidence. Lafia Journal of Economics and Management Science. 2021; 6(2):67-78.
16. Mohammed ID, Abubakar S. Deficit financing asymmetry and Nigeria's economic growth: A Nonlinear Autoregressive Distributed Lag Approach. The Economics and Finance Letters. 2020; 7(2):112-121.
17. Mojeed OA. Asymmetric relationship between budget deficit and economic growth in Nigeria. Chiang Mai University Journal of Economics. 2021; 25(2).
18. Nwakobi BC, Echekoba FN, Ananwude AC. Deficit financing and inflation: Evidence from Nigeria. Nigerian Journal of Economic and Social Studies. 2018; 60(3):341-361.
19. Nzeh CN. Fiscal deficit financing and economic growth in sub-Saharan Africa. African Journal of Economic Review. 2020; 8(2):45-60.
20. Ogbonna KS, Ibenta SN, Chris-Ejiogu UG, Atsanan AN. Public debt services and Nigerian economic

growth: 1970-2017. European Academic Research. 2019; 6(10):22-34.
21. Ogwu CB. Deficit Financing, debt servicing and economic development in Nigeria. European Journal of Accounting, Auditing and Finance Research. 2023; 6(8):122-135.
22. Ogwueleka C, Uju R, Amaka GM, Obisike N, Uzoma K. Impact of deficit financing on economic growth in Nigeria. International Journal of Management Studies and Social Science Research. 2022; 6(4):127-134.
23. Okah JC, Chukwu KC, Ananwude AC. Deficit financing and economic growth in Nigeria: 1987-2017. Asian Journal of Economics, Business and Accounting. 2019; 12(1):1-15.
24. Oko SU, Etim EN. Impact of budget deficit financing on economic development in Nigeria. International Journal of Advances in Engineering and Management (IJAEM). 2022; 4(12):820-828.
25. Okoro AS, Oksakei YP. Impact of fiscal deficits on macroeconomic variables in Nigeria. International Journal of Accounting Research. 2020; 6(1):1-13.
26. Okoro AS. Deficit Financing and Trade Balance in Nigeria. International Journal of Accounting Research. 2013; 2(1):49-54.
27. Olulu-Briggs OV, Samson KT. Deficit financing and Economic Growth: Evidence from Sub-Sahara African Countries. South Asian Res J Bus Manag. 2023; 5(4):106-113.
28. Onwioduokit EA, Inam US. Budget deficit and economic growth in Liberia: an empirical investigation. American Journal of Social Sciences and Humanities Research. 2018; 2(6):68-78.
29. Stephen EU, Edogiawerie NM, Abubakar AB. Deficit financing and economic Growth: Empirical evidence from Nigeria. Journal of Economics and Public Finance. 2023; 9(2).
30. Tosan Jakpa N, Osho-Itsueli AO. Fiscal deficit financing and public debt sustainability in Nigeria. Journal of Public Finance and Policy Analysis. 2020; 7(4):27-49.
31. Ughulu SE, Ughulu MO. Capital market operations and economic growth in Nigeria: An Empirical Investigation. International Journal of Advanced Engineering and Management Research. 2020; 5(3):1-18.
32. Ugwuanyi GO, Onoh UA, Agbaeze CC. Implication of deficit financing on economic recovery in Nigeria. Middle East Research Journal of Economics and Management. 2021; 1(1):8-17.
33. Umaru AD, Aliero HM, Abubakar M. Budget deficit and economic growth in Nigeria, CBN Economic and Financial Review (EFR). 2021; 59(2):23-41.