EFFECTS OF DEFICIT FINANCING ON ECONOMIC DEVELOPMENT IN NIGERIA

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ABSTRACT

This study examined the effects of deficit financing on economic development in Nigeria (2003-2021). The specific objectives were; to ascertain the effect of budget deficit on economic development in Nigeria, to determine the effect of domestic borrowing on economic development in Nigeria and lastly to evaluate the effect of external borrowing on economic development in Nigeria. The study adopted Ex-post facto research design with yearly time series data obtained from publications of the United Nations Development Programme (UNDP) and the Central Bank of Nigeria Statistical Bulletin. A computer based multiple regression equation using autoregressive distributed lag (ARDL) method of estimation and other descriptive statistics techniques were employed to determine the relationship between the variables in the study. The findings from the study revealed that budget deficit and domestic borrowing had significant positive effect on economic development in Nigeria whereas external borrowing had weak effect on economic development in Nigeria. Consequently, the study recommended among others that there must be genuine commitment in executing budgets and also the need for adequate monitoring so that budgetary allocations can result in actual development across all the targeted sectors. The study therefore concludes that deficit financing is a major driver of economic development in Nigeria and that financing the deficit through domestic borrowing is also an important contributor to development in Nigeria.

Keywords: Deficit financing, budget deficit, domestic borrowing, external borrowing, economic development

INTRODUCTION

Deficit financing is a key tool for fostering economic growth and development and will be required when the government has a budget deficit. For the economy to grow as projected, the government must raise money from other sources to make up for revenue shortage brought on by excessive expenditure. Although government spending in Nigeria has increased significantly over the years, the anticipated rate of economic growth and development is still not being met as higher proportion of Nigerians live in extreme poverty, high unemployment rate, food scarcity, poor infrastructure as well as high death rate and low life expectancy due to limited access to quality medical services (Ogwueleka et al., 2022). The significance of deficit financing is mostly due to its effect on economic growth and consequently on economic development. When government revenue streams are not sufficient to cover rising government expenditures, borrowing by the government becomes imperative (Abdulkarim & Saidatulakmal, 2021). As a fiscal policy tool, deficit financing can be used to address the issue of unemployment, depression and ultimately boosting the economy (Keynes, 1936). In particular during depression, the Keynesian school of thought supports increase in government spending above current income. They contend that the absence of public sector spending during periods of low aggregate demand is the primary contributor to depression.

In reality, external sources, non-bank sources and bank sources can all be used to finance the deficit (Kasasbeh & Alzoub, 2019). Borrowing at a reasonable interest rate is crucial for furthering economic growth and development. That said, taking on too much debt without making wise investment choices could lead to high levels of debt and high cost of debt which may have several adverse effects on the economy. Today, many Nigerians are seriously concerned about the country’s debt profile even as the billions of naira

spent have no discernible effect on the citizens standard of living (Nwikina et al., 2021). According to Ughulu et al., (2023), Nigeria's high debt profile has resulted in increasing prices and exchange rate instability, consequently robbing the economy of its ability to produce goods and services, create jobs, accumulate savings and capital, all of which were the primary goals of the debt at the start. Over the years, these issues have attracted policies so as to mitigate the aforementioned effects. For example, in 1986, Nigeria took on the International Monetary Fund's structural adjustment program with the aim of boosting local production of tradable commodities, maintain a manageable external debt profile and attain non-inflationary growth as well as boosting investment, domestic savings and the inflow of foreign funds. Another step taken by the authorities to address debt-related issues was to stop accessing foreign loans, unless they were granted on favorable terms and exclusively for operations that would increase exports or decrease imports and could be repaid (CBN, 1999). The setting up of the Debt Management Office (DMO) in 2000 is also one of the policy measures introduced to control debt. The DMO is responsible for managing the nation's entire public debt which was formerly managed by the CBN. Meanwhile, these steps have not rescued Nigeria from experiencing all of the negative indicators listed above.

Despite Nigeria having fiscal surplus in 1995 and 1996, successive years have been one of budget deficits (CBN, 2021). The nation's public debt is on the rise as a result of the continuous annual deficit and if this situation persists, achieving sustainable growth and development may become difficult. In 2021, recurrent expenditure accounted for more than 75 percent of the total federal budget. Whereas the total expenditure of the government in 2021 was N12.1 trillion, only N2.5 trillion of that amount was actually spent on capital projects, while the fiscal deficit was N7.1 trillion (CBN, 2021). Evidently, the government of Nigeria is borrowing more money, leaving the nation with huge debt burden that must be serviced, some of which in foreign currency, thereby possibly impacting negatively on the economy. Depending on how the debt fund is used, the effect of deficit financing on economic development might vary. If the borrowed amount is employed to finance developmental projects like water supply, power generation, transportation infrastructure and human capital development (sound health, quality education etc), the country's productive capacity could increase, resulting in economic growth and development. In addition, the income from these infrastructures may be sufficient to pay off the debt or at least service it. On the flip side, the government would be compelled to hike tax rates in the years to come so as to pay off the debt if the borrowed funds are spent on recurrent items like administrative costs. Not only would this drive away investors and slow economic progress, paying off the debt will put enormous strain on governments and generations to come (Alesina et al., 2018).

There are concerns regarding the impact of Nigeria's rising debt and deficits on the economy. Nigeria is currently one of the most indebted nations in Sub-Saharan Africa, with a slow growth rate in export and GDP, rising levels of poverty and a fast-declining per capita income (Ezenwobi & Anisiobi, 2021). As of December 31, 2022, Nigeria's total debt was N46.25 trillion, including states and Abuja (DMO, 2022). Her debt situation is expected to worsen in 2023, with an approved federal government new borrowing amounting to N8.8 trillion to finance a budget deficit of N10.78 trillion and a projected total expenditure of N21.83 trillion which is the highest to date (BOF, 2023). The government maintains that its debt-to-GDP ratio is within safe bounds, yet for years, it has used substantial amount of its earnings to service increasing debt. It is anticipated that government spending from deficit financing will revitalize the economy, increase its growth potential as well as improve the welfare of the populace. Surprisingly in Nigeria, the situation is the opposite. Specifically in 2019, Nigeria fiscal deficit stood at N4.8 trillion; rising in 2020 to N6.2 trillion representing 29 % increase from the previous year. The deficit level jumped again to N7.1 trillion in 2021 (CBN, 2021). Again, the ratio of debt service to revenue has been on the increase making the situation more worrisome for Nigeria. Out of its total N10.3 trillion federally collected revenue in 2019, the Nigerian government paid N2.45 trillion in debt service representing approximately 24 percent of her revenue. In 2020, revenue level dropped to N9.28 trillion while the Nigerian government paid N3.26 trillion in debt service representing approximately 35 percent of revenue. In 2021, revenue level rose to N10.76 trillion while N4.22 trillion was spent on debt service representing approximately 39 percent of revenue (CBN, 2021). In 2023, the approved projected federally collected revenue is N11.045 trillion and N6.31 trillion is earmarked for debt service, representing approximately 57 percent of her projected revenue (BOF, 2023). This implies that 57 percent of the 2023 anticipated federally collected revenue will be spent on debt servicing, which is disturbing.

Economic development in Nigeria may have been stifled as a result of the aforementioned findings, considering that achieving development goals often entails gains in a number of areas such as life expectancy, per capita income and literacy rates. For instance, a 2019 study revealed that approximately 83 million people or 40.1 percent of the population live below the poverty line of N137,430 per year (NBS, 2020). Likewise, a 2022 study revealed that 133 million people or 63 percent of the population are multi-dimensionally poor (NBS, 2022). This baffling situation has caused a great deal of concern among researchers. One aspect of the process of economic development is economic growth (Sen, 1983) and given that researchers concur that there is a positive relationship between deficit financing and economic growth (Ihegboro et al., 2021; Ughulu et al., 2023; Umaru et al., 2021), others support the neoclassical theory of negative relationship between them (Dickson, 2020; Tosan & Olubomi, 2020; Ishaka & Likita, 2021) while the Ricardian Equivalence theory opines that there is no causality between deficit financing and economic growth. Since economic development entails both economic growth and gradual improvements in several key parameters like health, education and income. Therefore, the aforementioned arguments among researchers along with examining deficit financing relative to economic development in Nigeria is what inspired this investigation.

The main objective of the study was to examine the effects of deficit financing on economic development in Nigeria. The specific objectives of the study were to ascertain the effect of budget deficit on economic development in Nigeria, to determine the effect of domestic borrowing on economic development in Nigeria and to evaluate the effect of external borrowing on economic development in Nigeria. To achieve the stated objectives, the study attempted to ask the following questions: to what extent does budget deficit affect economic development in Nigeria? To what extent does domestic borrowing affect economic development in Nigeria? and to what extent does external borrowing affect economic development in Nigeria? The study aims to inform decision-makers on the optimal course of action as it bothers on deficit financing strategies. The study also has academic relevance as it can be used by future researchers to update previous work and develop ideas. The study investigated the association between deficit financing and economic development in Nigeria. The focus is on federal government deficit financing. Consequently, budget deficit, domestic borrowing and external borrowing were investigated. The analysis only covers the period from 2003 to 2021. The choice of this timeframe is hinged on data availability as there was no available data on the dependent variable for earlier years.

LITERATURE REVIEW

Economic Development

It is the persistent and deliberate efforts of policy makers that improves the quality of life and economic wellness of a particular area (Magehema, 2015). Economic development entails both economic growth and gradual improvements in several key parameters like health, education and income which affect people's well-being. It is also referred to as the qualitative and quantitative changes in the economy (Nwikina et al., 2021). According to Pritchett et al., (2013), economic development is the process in which individuals in a nation get healthier, wealthier, better educated as well as have improved access to quality housing. Finnemore (1996) posits that prior to the 1960s, economic development policies were more concerned with infrastructure and industrialization than with reducing poverty. A very popular measure for development is the human development index (HDI), which the United Nations Development Programme (UNDP) regularly publishes in its Human Development Report. A long and healthy life, knowledge and a descent standard of living are three key dimensions of human development that the HDI measures (UNDP, 2022). Among other commonly used measures of economic development are gross national product, per capita income, poverty index etc.

Deficit Financing

Deficit financing refers to any expenditure by the government that exceeds current revenue (Eze & Nwambeke, 2015). It implies the disparity between budget receipts and budget expenditures funded by cash withdrawals and borrowing (Nwanna & Umeh, 2019). It is the net increase in the quantity of money in circulation when such a rise is brought about by a deliberate government policy intended to promote commercial activities that wouldn't have occurred (Adesuyi & Falowo, 2013).

It is typically used in government finance since income, represented by tax receipts and levies are usually insufficient to cover expenditure. It can also be viewed as the sale of debt securities to fund expenditures that exceed revenue. This funding strategy can also be seen as a non-bank source of finance. Other non-bank sources of deficit financing in Nigeria include sale of government assets (privitazation) as well as recovered looted public funds from government officials. All of these descriptions clearly show that deficit financing occurs when government spending exceeds expected revenue. The four methods that Fischer and Easterly (1990) identified for funding the deficit are domestic borrowing, external borrowing, the use of foreign reserves and printing money (ways and means).

Budget Deficit and Economic Development

Budget deficit occurs when government total expenditures exceeds its total revenue for a given time period, leaving a negative balance. Reducing savings, printing money or borrowing addresses this financial imbalance. Economic development on the other hand is heavily reliant on capital formation and savings is the main driver of capital formation (Dickson, 2020). Less developed countries (LDCs) are known for having low saving-to-income ratio. Therefore, borrowing to finance deficit budget becomes a major source of capital accumulation. Inflation benefits producer more than low-income people. Thus, during inflation the propensity to save is higher for producers. Consequently, the community’s overall savings grows, which can be employed for capital formation to drive economic development. Thus in LDCs, borrowing by the government to finance deficit budget is aimed at mobilizing savings (Dickson, 2020). According to Malhotra (2019) budget deficit is also helpful when a developing economy is experiencing depression. During depression, aggregate demand is low. By adding more purchasing power to the economy through budget deficit, effective demand might rise to be at par with aggregate demand. Consequently, production will rise and if this increase matches the level of aggregate spending, the possibility of creating inflation will be eliminated. Therefore, the extent to which budget deficit has impacted on economic development in Nigeria will be empirically determined in this study.

Domestic Borrowing and Economic Development

Domestic borrowing is the sum of money collected by the government from its own citizens and in local currency. It refers to the portion of a country’s overall public debt that is owed to lenders within the country. Bank and non-bank borrowings are the two forms of domestic debt. Bank borrowing consists of the central bank’s loans and advances to the government. Non-bank borrowing is obtained from the public by the government through the issuance of government securities such as bonds, development stocks and treasury bills. As of December 31, 2022, Nigeria’s total domestic debt stock (including States and Federal capital Territory) was N27.5 trillion, comprising bonds, treasury bills, FGN Sukuk and promissory notes (DMO, 2022). Due to the presence of domestic debt instruments, savers may have an inducing alternative to capital flight and may be persuaded to bring their resources back into the formal financial system. One key reason governments opt for domestic borrowing is that it can aid in strengthening the money and financial markets, as well as in increasing private savings and stimulating investment (Abbas & Christensen, 2009).

The crowding out effect on private investment is the main concern regarding domestic debt. Government borrowing domestically consumes savings from domestic households that otherwise could have been used for lending in the private sector. As a result, the market’s remaining pool of loanable funds shrinks, thereby increasing the cost of capital for private borrowers and decreasing the demand for private investments, which in turn reduces capital accumulation, growth and development (Diamond, 1965). Critics of domestic debt are also worried about the effects on inflationary risks, weakened bank efficiency as well as fiscal and debt sustainability (Abbas & Christensen, 2009). Whether or not domestic borrowing has contributed significantly in any way to Nigeria’s economic development will be empirically verified by this study.

External Borrowing and Economic Development

It refers to the portion of a nation’s debt that is borrowed from overseas lenders, such as international financial institutions, governments or commercial banks (Ughulu et al., (2023). External debt which is also referred to as foreign debt, consists of principal and interest which must be repaid in the currency in which the loan was granted. Typically, countries take on this debt to finance investments across several sectors like education, health etc. As of December 31, 2022, Nigeria's total external debt stock (including States and

Federal capital Territory) was N18.7 trillion comprising multilateral and bilateral loans as well as commercial debt (DMO, 2022).

A major concern regarding external borrowing is the debt overhang effect. This is when the loan repayment leaves the debtor country with limited funds to invest in economic development. In addition, it raises the debtor country's exposure to interest rate risk (Akanbi et al., 2022). Currency risk is also another problem with borrowing from abroad since it increases the demand for foreign currency which is usually in short supply. More so, depreciation or devaluation of the local currency will make it more difficult to pay off the external loan (Elhendawy, 2022). Therefore, the research tests the following hypotheses;

Ho_1: budget deficit has no significant effect on economic development in Nigeria.
Ho_2: domestic borrowing has no significant effect on economic development in Nigeria.
Ho_3: external borrowing has no significant effect on economic development in Nigeria.

EMPIRICAL REVIEW

Ezenwobi and Anisiobi (2021) investigated the effect of government public debt on economic development in Nigeria. The study employed annual times series data for the period 1990 to 2020. Human development index (HDI) was used as the dependent variable while domestic debt (DOD), external debt (EXD), inflation (INF) and interest rate (INTR) were the independent variables. The study employed multiple regression model and error correction mechanism (ECM) estimation techniques and found that external debt and domestic debt had positive and significant effect on economic development in Nigeria. Interest rates had negative and significant effect on economic development in Nigeria while inflation had negative effect but not statistically significant. Nwikina et al. (2021) investigated the relationship between deficit financing and economic development in Nigeria. The study employed annual times series data for the period 1986 to 2019. The study also employed HDI as dependent variable while budget deficit (BD) and government expenditure (GE) were used as the independent variables. The study employed Autoregressive Distributive Lag estimation technique and found that budget deficit and government expenditure had positive effect on HDI but not statistically significant

Ihegboro et al. (2021) examined the relationship between deficit financing and economic recovery in Nigeria. The study employed annual times series data for the period 1981 to 2015. The study also employed HDI as the explained variable while federal government deficit budget, federal government external debt and federal government domestic debt served as explanatory variables. The study employed ECM estimation technique and found that federal government external debt had positive and significant effect on economic recovery and development in Nigeria while domestic debt and budget deficit had negative and positive effect respectively on economic recovery and development in Nigeria but not statistically significant.

Ughulu et al. (2023) examined the impact of deficit financing on economic growth in Nigeria. The study employed annual times series data for the period 1981 to 2019. The study employed real gross domestic product as the dependent variable while federal government domestic debt, federal government external debt, federal government budget deficit, foreign exchange reserves and broad money supply served as the independent variables. The study employed Fully Modified Ordinary Least Square (OLS) estimation technique and found that domestic debt, budget deficit and the broad money supply had positive and significant impact on economic growth in Nigeria while external debt had negative and significant impact on economic growth in Nigeria. The impact of foreign exchange reserves on economic growth in Nigeria was positive but not statistically significant.

Ishaka and Likita (2021) investigated the effect of budget deficit on economic growth in Nigeria. The study employed annual times series data for the period 1985 to 2020. The study employed real gross domestic product as the explained variable while government deficit budget, inflation rate, government expenditure and external debt served as explanatory variables. The study employed Autoregressive Distributed Lag (ARDL) estimation technique and found that government expenditure and external debt had positive and significant effect on economic growth in Nigeria. Inflation rate had positive effect on economic growth in Nigeria but not statistically significant while government budget deficit had negative effect on economic growth in Nigeria but not statistically significant. Eche et al. (2022) examined the impact of fiscal deficit on

Nigeria economic growth. The study employed annual time series data for the period 1981 to 2020. The study employed gross domestic product as the dependent variable while government deficit financing, interest rate, exchange rate and inflation rate served as the independent variables. The study employed autoregressive distributed lag (ARDL) estimation technique and found that government deficit financing, exchange rate and interest rate had negative and significant impact on economic growth in Nigeria while inflation rate had positive impact on economic growth in Nigeria but not statistically significant.

Nwanna and Umeh (2019) examined the effect of deficit financing on Nigeria economic growth. The study employed annual time series data for the period 1981 to 2016. The study employed real gross domestic product as the dependent variable while external debt, domestic debt and debt service served as the independent variables. The study employed ordinary least square (OLS) estimation technique and found that external debt had negative and significant effect on economic growth in Nigeria. Domestic debt had positive and significant effect on Nigeria's economic growth while the control variable of debt service had no significant effect on economic growth in Nigeria. Dickson (2020) examined the relationship between deficit financing and economic growth in Ghana. The Study employed annual time series data for the period 2007 to 2016. The study employed economic growth rate as the explained variable while budget deficit served as the explanatory variable. The study employed correlation analysis in determining the relationship and found that a negative correlation exist between deficit financing and economic growth in Ghana.

METHODOLOGY

Research Design

Given that there is already existing secondary data, the *ex-post facto* research design was used to accomplish the objectives. Notably, the researcher's primary concerns while adopting the *ex-post facto* design are data gathering and interpretation. Consequently, yearly time series data for the years 2003 to 2021 were collected and used in the study.

Sources of Data

The data used were mainly extracted from various publications of the United Nations Development Programme (UNDP) and the Central Bank of Nigeria Statistical Bulletin. Particularly, measures for deficit financing were retrieved from various issues of CBN Statistical Bulletin while the measure for economic development was compiled from various reports of UNDP.

Description of Model Variables

The study adopted multiple regression equation to show the relationship between deficit financing and economic development in Nigeria. The dependent variable (economic development) is proxy by Human Development Index which measures the average level of achievement in terms of a long and healthy life, knowledge and a descent standard of living. Life expectancy at birth is used in assessing the health dimension. The average number of years spent in school for adults aged 25 and above as well as the anticipated number of years to be spent in school for children who have reached school-age is used in assessing the education dimension. Lastly, gross national income per capita is used in assessing the standard of living dimension. Thereafter, a composite index is produced using geometric mean by adding up the scores from the three HDI dimension indices. Budget deficit is the difference between federal government total expenditure and retained revenue. Domestic debt is measured as the portion of the total federal government debt that is owed to lenders within Nigeria. External debt is measured as the component of the total federal government debt that is sourced from foreign lenders comprising multilateral and bilateral loans as well as commercial debt (DMO, 2022). Inflation is measured as the percentage change in the price of a basket of goods and services consumed by households in Nigeria.

Model Specification

The model used is adapted from the work of Nwikina et al., (2021). The linear regression employed by the researcher is stated thus:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + U$……………………………... (1)

Where Y = HDI (as measure of economic development); $X_1 - X_2$ = independent variables of budget deficit and government expenditure. The model for this study was modified in terms of the measures for deficit financing.

Consequently, the model is given as:
HDI = f(BUD, DOD, EXD, IFL) ……………………………………….. (2)
Given that the variables have varying units and measurements, the variables had to be logarithmized to make them of equal base.
Transforming equation (2) into a linear equation in log form:
$_{Log}HDI = \beta_0 + \beta_{1Log}BUD + \beta_{2Log}DOD + \beta_{3Log}EXD + \beta_{4Log}IFL + U$ ………….. (3)
where:
HDI = Human Development Index as proxy for economic development; β_0 = Intercept of the regression; $\beta_1, \beta_2, \beta_3, \beta_4$ = Slope of the line; BUD = Budget Deficit; DOD = Domestic Debt; EXD = External Debt; IFL = Inflation Rate; U = Error term.
A priori Expectation
Deficit financing and economic development in Nigeria is expected to be positively related. Therefore, it is anticipated that $\beta_1, \beta_2, \beta_3 > 0, \beta_4 < 0$

Analytical Techniques
The data was first analyzed using descriptive statistical tools such as Jarque-Bera (J-B), skewness, standard deviation, median, mean among others. Thereafter, Augmented Dickey-Fuller (ADF) unit root test was conducted to ascertain the order of integration of the variables employed. Consequently, the autoregresive distributed lag (ARDL) bounds test was carried out to ascertain if the variables have long-run relationship. The ARDL method was used to estimate the model and stability test was performed to ascertain the strength of the model using E-views econometric software 9.0.

Decision Rule: Reject the null hypothesis and accept the alternate when the significant (prob) value is less than 0.05.

RESULT AND DISCUSSION

Table 1 below presents the summary statistics of the variables under consideration. According to the descriptive statistics, the average (mean) yearly index on economic development in Nigeria is approximately 0.5. The mean value which is slightly higher than the median value of 0.49 indicates that the values of economic development are nearly identical and are also skewed to the left (negative skewedness). The standard deviation of 0.027022 is lower than the average value, indicating low variability in economic development in Nigeria. Among the explanatory variables, only IFL was negatively skewed to the left. The J-B, kurtosis and skewness statistic sheds light on the normality of the series. The null hypothesis of normal distribution is accepted for all the variables in the model except EXD given that the probability (p) value of their J-B statistics are shown to be greater than 0.05.

Table 1: Descriptive Statistics of the Variables

	HDI	BUD	DOD	EXD	IFL
Mean	0.499947	1920.947	7380.556	4022.135	12.25632
Median	0.499000	1105.400	6537.540	2111.510	12.22000
Maximum	0.538000	7118.700	19242.56	15855.23	17.86000
Minimum	0.450000	47.40000	1329.680	438.8900	5.390000
Std. Dev.	0.027022	2172.294	5555.853	4449.015	3.384767
Skewness	-0.112829	1.206919	0.600591	1.415895	-0.187442
Kurtosis	1.834602	3.251522	2.215292	4.061443	2.290307
Jarque-Bera	1.115517	4.662822	1.629728	7.240343	0.509993
Probability	0.572491	0.097159	0.442700	0.026778	0.774919
Observations	19	19	19	19	19

Source: Author’s Computation, 2024 using E-views

Stationarity Test
ADF unit root tests were carried out at levels and first difference to determine the stationarity property of the variables. Table 2 captures the ADF test result.

Table 2: ADF Unit Root test at Levels and First Difference

Var	ADF Test Stat	Level 1%	Level 5%	Prob	ADF Test Stat	First Diff 1%	First Diff 5%	Order
LHDI	-2.323985	-3.857386	-3.040391	0.1755	-3.301367	-3.886751	-3.052169	I (1)
LBUD	-0.748820	-3.857386	-3.040391	0.8094	-4.959559	-3.886751	-3.052169	I (1)
LDOD	-0.555906	-3.857386	-3.040391	0.8577	-3.068110	-3.886751	-3.052169	I (1)
LEXD	-1.028917	-3.886751	-3.052169	0.7177	-3.105834	-3.886751	-3.052169	I (1)
LIFL	-3.578080	-3.886751	-3.052169	0.0183				I (0)

Source: Author's Computation, 2024 using E-views

Note: The stochastic time series properties are integrated of order one, I(1) and order zero I(0). Source: Author's Computation, 2024 using E-views

According to the test results, one independent variable (IFL) was found to be stationary at levels since its ADF test statistic value (absolute) was greater than the 5% critical value. All other variables became stationary only at first difference.

Co-integration Test
Following proof that the variables are of different order of integration, the study then test for co-integration of the variables. Consequently, Pesaran, Shin and Smith (2001) bound test for long run relationship was employed in the study to obtain accurate result.

Table 3: Bounds Test for Co-integration

Variables	F-Statistics	Co-integration
F(LHDI, LBUD, LDOD, LEXD, LIFL)	4.047212	Co-integration
Critical Values	Lower Bound	Upper Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Author's Computation, 2024 using E-views

The bounds test result revealed that the F-statistic value of 4.04 is greater than the 5 percent upper bound critical value of I(1). The result therefore suggests that deficit financing and economic development in Nigeria have a long run relationship. Consequently, the study went on to conduct the ARDL method of estimation.

Estimation of the Relationship
In line with the ARDL optimal model of (1, 1, 1, 1, 0), the result of the long-run and short-run forms of the ARDL model is presented in Table 4 below.

Table 4: Showing Result of ARDL short and Long Run Coefficients

Short Run

Variable	Coefficient	t-statistics	Prob. Value
D(LBUD)	0.003177	0.691820	0.5065
D(LDOD)	0.006889	0.184093	0.8580
D(LEXD)	0.002226	0.527055	0.6109
D(LIFL)	-0.004840	-0.812747	0.4373
CointEq(-1)	-0.571844	-3.257550	0.0099
Long Run			
Variable	Coefficient	t-statistics	Prob. Value
C	1.239499	12.922732	0.0000
LBUD	0.014989	2.556488	0.0228
LDOD	0.073250	5.391053	0.0004
LEXD	0.007231	1.337418	0.2139
LIFL	-0.008464	-0.851929	0.4163

Source: Author's Computation, 2024 using E-views.

As can been seen in Table 4 above, the error correction term (ECT) represented as CointEq(-1) is significant at 5% and has the anticipated negative sign. This provides more evidence that the variables have a long-run relationship. The coefficient of the ECT implies that the previous period deviation from long run equilibrium is corrected in the current period at a speed of 57 percent.

Diagnostic Tests

The Breusch-Godfrey Residual Serial Correlation test and the Breusch-Pagan-Godfrey Heteroskedasticity test results in Table 5 respectively shows that their p-values of 0.7088 and 0.3692 are greater than 0.05, implying that the null hypothesis of no serial correlation and no heteroskedasticity in the residuals are accepted. Therefore, the model has no problem with serial correlation and heteroskedasticity. Also, the jarque-bera normality test result in appendix eight show that the p-value of 0.488354 is greater than 0.05, implying that the hypothesis of normality is not rejected.

Table 5: Diagnostic Tests

Test	F-Statistics	Prob.
Serial Correlation	0.361607	0.7088
Heteroskedasticity	1.254180	0.3692
Jarque-Bera Normality	1.433431	0.488354

Source: Author's Computation, 2024 using E-views

Test of Hypothesis One

Hypothesis One: The null and alternate hypothesis one is stated thus:
H_{O1}: budget deficit has no significant effect on economic development in Nigeria.
H_{A1}: budget deficit has significant effect on economic development in Nigeria.
Decision Rule: Reject the null hypothesis and accept the alternate when the significant (prob) value is less than 0.05.
For hypothesis one, the p-value is 0.5065 and 0.0228 for short and long run respectively. Only the p-value for long run is less than 0.05 and therefore the null hypothesis is rejected. Consequently in the long run, budget deficit has significant effect on economic development in Nigeria.

Test of Hypothesis Two

Hypothesis Two: The null and alternate hypothesis two is stated thus:

H_{O2}: domestic borrowing has no significant effect on economic development in Nigeria.
H_{A2}: domestic borrowing has significant effect on economic development in Nigeria.
For hypothesis two, the p-value is 0.8580 and 0.0004 for short and long run respectively. Again, only the p-value for long run is less than 0.05 and therefore the null hypothesis is rejected. Hence in the long run, domestic borrowing has significant effect on economic development in Nigeria.

Test of Hypothesis Three
Hypothesis Three: The null and alternate hypothesis three is stated thus:
H_{O3}: external borrowing has no significant effect on economic development in Nigeria.
H_{A3}: external borrowing has significant effect on economic development in Nigeria
For hypothesis three, the p-value is 0.6109 and 0.2139 for short and long run respectively.
The p-values are greater than 0.05 and therefore the null hypothesis is not rejected which states that external borrowing has no significant effect on economic development in Nigeria.

Result and Policy Implication
The result of the study shows that budget deficit has positive effect on HDI for Nigeria over the time studied and the effect was statistically significant. The implication of the finding is that as budget deficit increases, HDI also increases. In line with a priori expectation, budget deficit has positive influence on economic development in Nigeria. The finding is not in consonance with the result of Nwikina et al., (2021) where their study reported a not significant positive effect of budget deficit on economic development in Nigeria. Domestic borrowing showed a positive effect on HDI for Nigeria over the time studied and the effect was statistically significant. The implication of the finding is that as deficit financing through domestic borrowing increases, HDI also increases. In line with a priori expectation, domestic borrowing has positive influence on economic development in Nigeria. The finding is in tandem with the work of Ezenwobi and Anisiobi (2021) but not in consonance with the result of Ihegboro et al. (2021).

Deficit financing through external borrowing showed positive effect on HDI for Nigeria over the time studied but the effect was not statistically significant. This may not likely be unconnected with the scarce foreign reserves spent on servicing foreign loans. The finding is not in tandem with Ezenwobi and Anisiobi (2021); Ihegboro et al., (2021) were their study reported a significant positive effect of external debt on economic development in Nigeria. Inflation as a control variable showed negative effect on HDI for Nigeria over the time studied but the effect was also not statistically significant. The finding is in line with the work of Ezenwobi and Anisiobi (2021).

Summary of Findings
This research basically examined the effect of deficit financing on economic development in Nigeria. The year 2003 to 2021 comprised the analysis's time frame. Specifically, the study sought to examine the significant effect of budget deficit, domestic borrowing and external borrowing on economic development in Nigeria. Descriptive and inferential statistics were applied in the data analyses and it was discovered that: budget deficit has significant positive effect on economic development in Nigeria in the long run as confirmed by the coefficient value of 0.014989, t-statistics value of 2.556488 and prob value of 0.0228. Domestic borrowing has significant positive effect on economic development in Nigeria in the long run as confirmed by the coefficient value of 0.073250, t-statistics value of 5.391053 and prob value of 0.0004. External borrowing has no significant effect on economic development in Nigeria as confirmed by the prob values of 0.6109 and 0.2139 for both short and long run respectively.

CONCLUSION

The findings of the study revealed that of all the main variables (budget deficit, domestic borrowing and external borrowing) regarded as drivers of economic development among other determinants in Nigeria, external borrowing does not have considerable influence on economic development in Nigeria. The model attributes change in Nigeria's economic development to the country's budget deficit and domestic debt. Therefore, the study submits that deficit financing is a major driver of economic development in Nigeria and that financing the deficit through domestic borrowing is also an important contributor to development in Nigeria.

RECOMMENDATIONS

Based on the above findings and conclusion, the study recommends the following for policy action:
There must be genuine commitment in executing approved budgets and also the need for adequate monitoring so that budgetary allocations can result in actual development across all the targeted sectors. Also, the government should augment the size of the budget deficit financed through domestic sources but with strict adherence to the fiscal responsibility act of 2007 as doing so will boost Nigeria's economy since payment of interest and principal on domestic borrowings constitutes economic reinvestment. Additionally, the government should make every effort to refrain from financing the deficit from external borrowing. This will reduce the amount of foreign exchange reserves spent on servicing external loans thereby strengthening the naira.

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