Debt Financing and Economic Growth: Evidence of Nigeria Economy

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Abstract: We analyzed implication of debt financing on Nigeria economic growth, by considering all the debt elements such as total external debt, FGN only, states & FCT, total domestic debt, FGN only and states & FCT, with the help of multiple regression on data covering from 2010 to 2022 and discovered that; debt finance has a positive correlation and impact on economic growth, the statistical value also reveal a very significant positive relationship among the variables at 0.0000, which negated our null hypothesis proposed above. Our model is also statistically significant with a probability level of 0.000041, at a confidence level of 87% approximately. Therefore we recommended that: Debt employed by government should be cannel into more productive sector in order to yield more positive returns; Comparative analysis, i.e., cost benefit analysis should be carryout by government officials before engaging in borrowing; and there should be proper monitoring of borrowed fund, in order to avoid diversion.

Keywords: Debt, finance and economic growth

I. Introduction

Every nation of the world has a way of keeping her economy running, over the years different approach has been adopted by economists and decision makers to keep the economy running at efficient level. While different countries of the world engage in buying and selling of commodities in order to generate most of her inflows, however in most cases this revenue fall short due to the increasing economic demand on the side of the government, hence such nation will have to other choice than to result to borrowing in order to finance her deficit budget. Although borrowing does not necessarily mean an economy has a deficit budget, an economy can borrow in most cases to finance an elephant project that they think is viable and is needed for the citizenry.

Sometimes borrowing might be encourage due to the monetary policy adopted by that economy, The valuable goals of money related approach incorporate smoothening of the business cycle, avoidance of monetary emergency and adjustment of long haul financing costs and genuine swapping scale, Abata (2012) most developing countries (Nigeria), the aimof monetary policy include, domestic price stability, adequate economic growth, external sector stability and full employment. Abdulkarim and Saidatulakmal (2023) developing economy have little or no options for raising public funds or attracting private investment. Therefore, debt is one of the tools used among others in order to meet growth funding requirements, but at unsustainable levels that jeopardize economic growth. Government borrow from domestic or external sources to bridge both short and long-term resource gaps and stimulate growth when revenue falls short of government expenditure. Subsequently, public obligation is a vital device the public authority could use to effectively fund capital development, support public consumptions, and prod monetary development, particularly in circumstances where it is trying to increment burdens and diminish public spending.

The idea of debt financing whichever type of form it take, is a major menace militating against developing economy particularly countries like Nigeria, between the period of 1950 to 1960, Nigeria had a magnificent growth in her gross domestic product, this was due to her huge investment in agriculture which was a major source of revenue for the country. However, in the eighties Nigeria's external debt rapidly escalated due to the diversion of her attention from agriculture to oil exploration, which also experience decline in activities. Debt financing be it internal or external in Nigeria can be traced to so many influences in the past which has led the growth of the economy to nosedive alongside its development(Osuji &Ozurumba, 2013).

II. Review of Related Literature

2.1Empirical reviewed

Abdulkarim and Saidatulakmal (2023) examined the nonlinear effects of public debt on economic growth in Nigeria, employed data from 1980 to 2020 using the Nonlinear Autoregressive Distributed Lag method, and discovered that Empirical evidence indicated that external debt have a significant positive and symmetric impact on economic growth in the long and short run, while debt service payment supporting the debt overhang hypothesis activated a symmetric effect that stifle growth. Domestic debt retarded growth asymmetrically in the short term and linearly over the long term. Foreign reserve holding, on the other hand, had an asymmetric long-run influence and a symmetric short-run impact on growth motivation. Therefore suggested that, in order to mitigate the negative effects of unsustainable public debt, the study advocated for fiscal reforms that effectively reduce deficit financing to keep the level of government debt low and be able to respond robustly to an economic shock, improve domestic revenue generation and infrastructure spending, and strengthen governance practices and institutions.

Victor, Clement and Nonso (2022) employed secondary data ranging from 2000 to 2020 to empirically reviewed the implications of excessive internal borrowing and debt management of Nigeria economy, with the help of Regression analysis, correlation analysis and revealed that internal borrowings have affected the growth of the economy negatively, a positive relationship exists between domestic debt servicing and internal borrowings and that rising budget deficit has a negative impact on domestic debt, therefore suggested that federal government should lay down well considered guidelines for internal loan, defining the purpose, duration, negotiation fee and conditions under which it can approve and guarantee a loan. Also limit domestic borrowings and mobilize untapped domestic resources as well as curb corruption in the country as borrowed funds are either misapplied or embezzled.

Olusegun, Oladipo and Omotayo (2021)employed secondary data covering from 1990 to 2020 in order toexamined debt service and its impact on economic growth the data were analyzed with the help of descriptive and covariance estimate method of analysis, and discovered that; there was presence of co-integration (long-run relationship) among the dependent and all the explanatory variables which is a clear indication that working debt servicing has positive and significant impact on economic growth of the country both in short and long run if properly managed. It was concluded that debt servicing has significant impact on the economic growth due to his positive relationship with gross domestic product, while exchange rate reflected a negative significant relation to Gross domestic product. Hence suggested that government should ensure that any debt both internal and external debt should be deal that will open Nigeria to greater trade and investment and can stimulate the economic growth of the country.

Samuel, John and Michael (2020) investigated the effects of monetary policy on bank lending and economic performance in Nigeria with secondary data covering from 1984 to 2018, they employed broad money supply, monetary policy rate, prime lending rate and inflation rate as monetary policy indicators while real gross domestic product was regressed as economic performance. The data were gathered from Nigeria Central Bank Statistical Bulletin and National Bureau of Statistics. The review utilized two models to break down the impact of money related approach on bank loaning and financial execution individually by applying the assessment procedures of Expanded Dickey Fuller (ADF) stationarity test and relapse investigation. Proof from model one situated that cash supply and expansion rate have huge impact on bank loaning while and financial arrangement rate had unimportant effect on bank loaning. The subsequent model found that cash supply has critical impact on financial execution though different factors of prime loaning rate, money related strategy rate and expansion rate significantly affect monetary execution under the review period. Notwithstanding, the review reasoned that money related arrangement emphatically and essentially affected monetary execution in Nigeria. It was in this manner prescribed that Nigeria's banks ought to adjust to government vision of cost strength, as well as working with the administrative and administrative structures to get major areas of strength for an area for productive intermediation.

Ademokoya, Sanni, Oke and Abogun (2020) employed secondary data from 2007 to 2019 with the help of multiple regression analysis to investigates the impact of monetary policy rate, money supply, liquidity ratio, and change in maximum lending rate on bank credit in Nigeria, and discovered that money supply significantly and positively influence bank credit in Nigeria; while liquidity ratio significantly but negatively influence bank credit in Nigeria. On the contrary, monetary policy rate and maximum lending rate were found not to significantly affect bank credit in the case of Nigeria, therefore suggested that monetary authorities especially, the Central Bank of Nigeria should pay more attention to lowering the liquidity ratio while increasing money supply in order to engender banks credit creation ability and further stimulate the Nigerian economy for growth.

Alagba and Eferakeya (2019) investigated the effect of public debts on economic growth of Nigeria for the period of thirty-eight (38) years, 1981 to 2018. Relevant secondary data were sourced from Central Bank of Nigeria Statistical bulletin and Debt Management Office. Among the objectives of the study is to: analyze the effect of domestic debts on the economic growth of Nigeria and evaluate the effect of foreign debts on the economic growth of Nigeria. The findings showed that domestic debts of the Federal government of Nigeria is positive and statistically significant to economic growth of Nigeria while foreign debts contribute less to the economic growth of the country. Cost of debts servicing is significant and has a negative effect on economic growth.

Sunday, Ngozi, Michael and Ogochukwu (2016) employed the Vector Autoregressive framework, the Granger causality test, impulse response, and variance decomposition to examined the impact of public sector borrowings on prices, interest rates, and output in Nigeria, with secondary data, and discovered that shock to external debt stock increases prime lending rate, but with a

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lag. However, the level of external and domestic debt over the period of this study had no significant impact on the general price level and output.

Jegede (2014) investigated the effect of monetary policy on commercial bank lending inNigeria, employed secondary data ranging from 1988 to 2008, macroeconomic time series variables of exchange rate, interest rate, liquidity ratio, money supply, and commercial bank loan and Advances, whilethe Vector error correction mechanism of ordinary least square econometric technique was adopted, and discovered that; a long run relationship among the variables in the model. Specifically, the findings revealed that exchange rate and interest significantly influenced commercial banks' lending, while liquidity ratio and money supply exert negative effect on commercial banks' loan and advances. Based on the output, He suggested that major conclusion drawn is that monetary policy instruments are not effective to stimulate commercial bank loans and advances in the long-run, while banks' total credit is more responsive to cash reserve ratio. Thus, monetary authority should make efforts to develop indirect monetary instruments and exercise appropriate control over the monetary sector.

Osuji and Ozurumba, (2013) employed secondary data covering from 1996 to 2011 investigate the impact of external debt financing on economic growth in Nigeria, time series variable properties of the study were stationary and co integration. The VEC model estimate revealed that London debt financing possessed positive impact on economic growth while Paris debt, Multila and Promissory note were inversely related to economic growth in Nigeria, therefore suggested that debt service cancellation and global marketing participation to encourage survival of SMEs in Nigeria.

Sulaiman and Azeez (2012) employed ordinary least square (OLS), Augmented Dickey-Fuller (ADF) Unit Root test, Johansen Co-integration test and Error Correction Method (ECM) with data covering from 1970 to 2010 to analyzed the effect of external debt on the economic growth of Nigeria, gross domestic product was employed as the endogenous variable measuring economic growth as a function of external debt, ratio of external debt to export, inflation, and exchange rate proxy as the exogenous variables. The result revealed that the co-integration test shows that long-run equilibrium relationship exist among the variables. The findings from the error correction method show that external debt has contributed positively to the Nigerian economy. The study recommends that government should ensure economic and political stability and external debt should be acquired largely for economic reasons rather than social or political reasons.

2.3Evidence of research gap

Over the years, different scholars have delve into this area of research work, however there is no consensus among them, this assertion is seconded by Victor, Clement and Nonso (2022) in their study of debt management and economic growth, and they discovered that debt have affected the growth of the economy negatively, however Sunday, Ngozi, Michael and Ogochukwu (2016) has a contrary view and findings, we also went further by employing a more recent data with the help of multi regression analysis.

III. Methodology

3.1Sources of Data and method of Analysis

We employed ex-post factor to analysed secondary data covering from 2010 to 2022 collected from Nigeria statistical bulletin and debt management office, this approached was to ensure data used are reliable as the researchers have no power to manipulate the data. Descriptive statistics and a multiple regressionwas adopted by the researchers using SPSS. The hypotheses were tested using the analysed result from the study; the decision rule was to reject the hypotheses if the calculated the p-value is less than 5% (0.05).

3.2Model specification

The below variables will tested using regression analysis with the help e-view 9.0 the model is stated as follows:

GDP = f (TBD, IFNR,)

This can be expressed into an equation as follows:

$GDP = \beta0+ \beta1TBD+ \beta2IFNR + \mu$

Where:

GDP = Gross domestic producti.e.representation of economic growth (the dependent variable).

TBD= Total public debt, which is a combination of: Total External Debt, FGN Only, States & FCT, Total Domestic Debt, FGN Only and States & FCT.

IFNR = Inflation rate, served as a control variable in the analysis.

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$\beta 0$= server as intercept or constant term

$\beta 1$ and $\beta 2$, = served as the parameters or coefficients of the independent variables to be estimated through the regression.

μ = is the error term of the regression equation (stochastic variable)

IV.Data Presentation and Analysis

The data used and presented in our study were extracted from statistical bulletin of Nigeria, debt management office web-site.

4.1 Data Presentation

YEARS	Total Public Debt (₦'Million)	inflation	GDP
2022	46,250,367.94	13.88	3,028.98
2021	39,556,032.50	11.08	2,547.84
2020	32,915,514.85	9.7	1,928.25
2019	27,401,381.29	11.701	1,428.65
2018	24,387,071.74	12.094	1,350.08
2017	21,725,773.03	16.502	1,187.62
2016	17,360,009.58	15.696	1,085.93
2015	12,603,705.28	9.01	1,032.78
2014	11,243,120.22	8.048	1,093.37
2013	10,044,198.82	8.495	917.4
2012	7,532,283.52	12.225	885.69
2011	7,554,258.00	10.825	732.96
2010	6,454,853.52	13.742	857.09

Sources:Debt Management office and Nigeria statistical bulletin

The above data represent the variables that will be used for our analysis, total debt is a combination of; Total External Debt, FGN Only, States & FCT, Total Domestic Debt, FGN Only and States & FCT. Inflation is employed as a control variable in our analysis.

4.1 Data Descriptive statistics

	TBD	IFN	GDP
Mean	16.63154	2.441538	7.143077
Median	16.67000	2.460000	7.000000
Maximum	17.65000	2.800000	8.020000
Minimum	15.68000	2.090000	6.600000
Std. Dev.	0.668529	0.224382	0.429561
Skewness	0.031386	-0.016557	0.846340
Kurtosis	1.645577	1.983062	2.645219
Jarque-Bera	0.995801	0.560766	1.620144

Probability	0.607805	0.755494	0.444826
Sum	216.2100	31.74000	92.86000
Sum Sq. Dev.	5.363169	0.604169	2.214277
Observations	13	13	13

Source: Authors computations using SPSS

The above descriptive statistics showed that the TBD has the highest values in all the descriptive values presented, this also revealed that as TBD increases the real GDP also increases, which negate Victor, Clement and Nonso (2022) in their study of debt management and economic growth, that discovered that debt have affected the growth of the economy negatively

4.2Data analysis and hypothesis testing

Debt finance has no significant on Nigeria economic growth

Dependent Variable: GDP				
Method: Least Squares				
Date: 06/22/23 Time: 10:00				
Sample: 2010 2022				
Included observations: 13				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TBD	0.605931	0.075657	8.008927	0.0000
INFLATION	-0.130679	0.225414	-0.579730	0.5749
C	-2.615436	1.265648	-2.066479	0.0657
R-squared	0.867296	Mean dependent var		7.143077
Adjusted R-squared	0.840755	S.D. dependent var		0.429561
S.E. of regression	0.171418	Akaike info criterion		-0.490244
Sum squared resid	0.293843	Schwarz criterion		-0.359871
Log likelihood	6.186583	Hannan-Quinn criter.		-0.517041
F-statistic	32.67789	Durbin-Watson stat		0.904002
Prob(F-statistic)	0.000041			

Source: Authors computations using SPSS

The data presented in the table above has showed that debt financehas a positive correlation and impact on economic growth, the statistical value also reveal a very significant relationship among the variables at 0.0000, which negated our null hypothesis proposed above.Generally, our model is also statistically significant with a probability level of 0.000041, at a confidence level of 87% approximately.

V. Conclusion and Recommendations

We analyzed implication of debt financing on Nigeria economic growth, by considering all the debt elements employ by the country thus far, for a period of thirteen years, we used multiple regression analysis with data collected from Nigeria statistical bulletin and debt management office of Nigeria, our finding revealed that debt finance has a positive impact on economic growth, this finding seconded, this supported Alagba and Eferakeya (2019), who also discovered that debt has a positive significant impact on economic growth.

We therefore recommended that:

i. Debt employed by government should be cannel into more productive sector in order to yield more positive returns;

ii. Comparative analysis , i.e., cost benefit analysis should be carryout by government officials before engaging in borrowing;

iii. There should be proper monitoring of borrowed fund, in order to avoid diversion.

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