Impact of External Debt on Economic Growth in Nigeria: An ARDL Bound Testing Approach.

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Abstract

This study examined the impact of external debt on economic growth in Nigeria covering the period 1990-2020. The study used time series data sourced from World Development Indicator 2022. The technique of data analysis employed was Autoregressive Distributive lag (ARDL) for data analysis. The series were found to be stationary at levels. The long run relationship was established using bound test. The result of ARDL estimates showed that external debt has negative and insignificant impact on economic growth in Nigeria. Exchange rate that has also affected public debt stock and value was negative and significant in influencing growth. However, gross fixed capital formation was positive and significant in influencing growth. Based n the findings of the study, the study suggest that Debt Management Office should set mechanisms in motion to ensure that loans are utilized for the purpose for which they were acquired. More so, the government should continue to encourage foreign direct investment in order to bring more inflows that will trigger economic growth.

Keywords: External debt, economic growth, ARD
JEL Code: G10, K46

1. Introduction

One of the macroeconomic objectives of a nation is sustainable economic growth. To achieve this goal, every government needs a substantial amount of capital to finance investment in infrastructure and productive capacity (Umaru, Hamidu, and Musa, 2013). This facilitates growth of gross domestic product (GDP) especially in less developed countries (LDCs). However, the required capital is not readily available in most developing countries coupled with low savings capacity leading to savings-investment gap (Ayadi and Ayadi, 2008). To bridge this gap, government usually result to borrowing to invest in various sectors of their economy. Similarly, Obudah and Tombofa (2013) argue that the specific reasons why countries may borrow include: to be able to finance their reoccurring budget deficit, as a means of deepening their financial markets, to enable them fund the increasing government expenditures, to enhance their narrow revenue sources and low output productivity which results in poor economic growth.

Debt, arguably, remains one of the major economic challenges facing governments in low income countries due to their persistence budget deficit and this has continued to attract the attention of international financial institutions and bilateral lenders. Nigeria's debt profile remained of great concern given the high level of the public debt. Nigeria, like most highly indebted poor countries, has low economic growth and low per capita income, with domestic savings not enough to meet developmental and other national goals. The country's exports were primarily commodities with export earnings too small to finance imports which are mostly capital intensive (Manufactured) goods which are comparably more expensive (Siddique, Selvanathan and Selvanathan, 2015).

The inability of Nigeria to effectively meet her debt obligations has adverse effect on the economy, as interests arrears accumulate over the years, thereby creating a much greater debt burden on the nation resulting in a greater percent of her revenue being spent on debt service arrears. Audu (2004) succumbs that the debt service burden has continued to hamper Nigeria's rapid economic development and worsened the social problems; this is because debt servicing crowds out investment and growth. Furthermore, Pattilo et al (2002) asserts that at low levels, debt has positive effects on growth but above the threshold point accumulated debt begins to have a negative impact on growth.

Therefore, this study examines the impact of external debt on economic growth rate in Nigeria. To achieve this, the study is structured into 5 parts. Part 1 is introduction. Part 2 is literature review. Part 3 is methodology. Part 4 is data presentation, analysis and discussion of findings. Chapter 5 is conclusion and recommendations.

2. Literature Review

2.1 Conceptual Clarification

2.1.1 External Debt

External debt is that portion of a country's debt that is acquired from foreign sources such as foreign corporations, government or financial institutions. It is the borrowing from foreign creditors primarily to finance their own excess expenditures, build additional infrastructure, finance recovery from natural disasters, and even to repay its previous external debt. This may, however, lead to a debt cycle of continuous borrowing, accumulating payment burden, and eventual default (Arnone, Bandiera & Presbiterio, 2005). External debt as that portion of a

country's debt that is acquired from foreign sources such as foreign corporations, government or financial institutions. It is that part of the total debt of a country that is owed to creditors outside the country.

The debtors can be the government, corporations or private households (Abula et al, 2016). According to Ogbeifm (2007), external debt arises as a result of the gap between domestic savings and investment. As the gap widens, debt accumulates, and this makes the country to persistently borrow increasing amounts in order to stay afloat. He further defined Nigeria's external debt as the debt owed by the public and private sectors of the Nigerian economy to non residents and citizens that is payable in foreign currency, goods and services. According to Muhammad & Fayyaz (2015), external debts affect the economy in different ways, explaining that where efficient use of external debts can bring economic prosperity to a nation, their inefficient use can cause severe damages as well. In essence, what matters most is not the amount of the foreign loans but the ways the loans are used in developmental process in the economy. However, if these loans are used for current consumption, they will have less impact on future economic growth, but if invested rationally in productive sectors of the economy, they will contribute positively to real growth and enhance the productive capacity of the economy.

2.1.2 Economic Growth

According to Balami (2016) Economic growth which is always proxied by GDP often conceptualized as increase in output of an economy's capacity to produce goods and services essential to improve the welfare of the country's citizens. Growth is seen as a steady process which involves raising the level of output of goods and services in the economy. Growth is meaningful when the rate of growth is much higher than population growth because it has to lead to improve human welfare. Economic growth is related to the quantitative and sustained increase in the countries per capita output or income accompanied by expansion in its labor force, consumption level, capital and volume of trade (Ijirshar, Joseph and Godoo, 2016).

Dwivendi (2002) further opines that economic growth emerges because of sustained increase in per capita output or net national product over a long period. Hence, another qualification of economic growth requires that the national output be composed of goods and services, which satisfy maximum wants of the maximum number of people. Alternatively, Anyanwu (1995) states that economic growth is a steady process of increasing the productive

capacity of the economy and hence, of increasing national income characterized by high rates of increasing per capita output and total factor (most especially labour) productivity. From these diverse definitions, it can be deduce that economic growth is simply an increase in the capacity of an economy to produce goods and services, compared from one period of time to another.

2.2 Theoretical Review

Debt overhang theory is the theoretical Framework that underpins this work. The debt overhang theory provides a new dimension to the growth-debt crisis, and the basis of this theory is that, if the level of a country's borrowing is over and above its capacity to pay, the expectation is that the debt servicing commitments will lead to a drain in the debtor's country output, thereby increasing the country debt burden, i.e. liquidity crisis. According to the debt overhang theory, high debts leads to anticipation of foreign taxation, reduce private sector incentive for savings and investment as well as promote outflow of capital from the domestic economy (Patillo, Poirson and Ricci, 2002).

This theory purports that accumulation of high stock of public debt would lead to reduction in economic growth and tangle developmental efforts through the channels of reduced public revenue and investment expenditure. It maintains that debt accumulation brings about growth initially but when it surpasses the debt sustainability threshold, the debt accumulation effect will intensify through liquidity constraint while debt servicing commitment diminish the earnings from exportation within the public sector for expenditure and by this means undermining economic development.

2.3 Empirical Review

There are studies carried out to examine the nexus between debt and growth. Timothy, Ogbemudiare Idehi, Maria, Chinecherem, and Uzonwanne (2021) examined the impact of external debt on economic growth in Nigeria covering the period, 1985-2019. The study used Ordinary least square (OLS) technique for regression analysis. The result showed that external debt has negative and insignificant impact on economic growth in Nigeria. Getinet and Ersumo (2020) analyzed the impacts of public external debt on economic growth in Ethiopia with ARDL approach using a time series annual data from 1983-2018. The study used bound testing for co-integration in the long-run and ECM for short-run dynamics. The study showed long-run co-integration, while

the speed with which the disequilibrium caused by lack of proper management of external fund in earlier years returns to long-term equilibrium is 60.96% in the current year as indicated by coefficient of error correction term.

Saungweme and Odhiambho (2019) explored the causal relationship between government debt, debt servicing and economic growth in Zambia for the period 1979-2017 using a dynamic multivariate ARDL approach. The results indicated a unidirectional causal relationship from economic growth to public debt in Zambia. Panagiotis (2018) investigated the nexus between public debt and economic growth using auto-regressive distributed lag (ARDL) model for data analysis. The findings show that private and government consumption, investment and trade openness had positive effects on economic growth; while government debt and population growth had a negative impact on growth.

Thao (2018) analyzed the effect of government debt on economic growth in six ASEAN countries, namely, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam over the period 1995– 2015. The General Method of Moments (GMM) estimation technique was adopted to measure the effect of government debt indicators on economic growth. The findings revealed a significant and positive impact of public debt, FDI, GFCF and real effective exchange rate on economic growth while population growth had a significant negative effect on the growth rate of these countries. Lucky and Godday (2017) examined the nexus between the public debts structure and the growth performance of the Nigerian economy for the period 1990-2015, using simple and multiple regression analyses. The findings show that total public debt to have a positive and significant impact on gross domestic product in Nigeria.

Elom-Obed, Odo, Elom, and Anoke (2017) examined the nexus between public debt and economic growth in Nigeria for the period 1980-2015 using cointegration test, Vector Error Correction Model (VECM) and Granger causality test. The results revealed that external debt and domestic debt have negative and significant effects on economic growth in Nigeria. More so, the results showed that domestic debt and external debt granger cause real gross domestic product (RGDP) with causality runs from external debt and domestic debt to RGDP. Igbodika, Jessie and Andabai (2016) investigated the nexus between domestic debt and growth performance of Nigerian economy from 1987-2014 using ordinary least square (OLS) technique. The results indicated that the interest rate had a negative and significant effect on the gross domestic product (GDP) in Nigeria. The results also showed that domestic debt had a positive and significant

influence on the gross domestic product in Nigeria.

Similarly, Sunday, Ngozi, Michael, and Ogochukwu (2016) investigated the impact of public sector borrowings on interest rates, prices, and output in Nigeria. Vector Autoregressive (VAR), Granger causality test, impulse response, and variance decomposition of the various innovations were engaged in the analysis to study the impact of the variables. The results showed that shock to external debt stock raises the prime lending rate. The results indicated that external and domestic debts had an insignificant impact on the output and general price level.

3 Methodology

The estimation method adopted in this study is the Autoregressive Distributive Lag (ARDL) method of co integration analysis. Time series data sourced from various publications of Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. The models used are estimated using data on Gross Domestic Product (GDP), Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR) for the period 1990-2020.

3.1 Model Specification

A model was formulated in which a linear relationship is established between growth in GDP as the dependent Variable, Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR) as independent variables. These will be tested to see if they impact on GDP.

The functional relationship between the variables is;

$$GDP = F(EXD, EXCHR, FDI, GFCF, INFR) \quad \ldots\ldots\ldots\

Foreign Direct Investment, GFCF = Gross Fixed Capital Formation, INFR = Inflation Rate, Ɛt = The disturbance/Error term.

As stated in this study, economic growth i.e. GDP, has a functional relationship with Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR).

3.2 Autoregressive Distribution lag (ARDL) Model

The ARDL Model estimation technique is capable of estimating short-run and long coefficients on variables that are purely I(1) or even variables that have the combination of I(1) and I(0) (Pesaran and Shin, 2001). Based on the fact that the variables considered for the analysis are I(1) and I(0). The study considered this estimation technique to be appropriate for the analysis of data. The model specification for the objective in the ARDL model is as follows:

$$\Delta GDPPC_t = \alpha_0 + \sum_{i=1}^{n} \alpha_{1i}\,\Delta GDPPC_{t-i} + \sum_{i=1}^{n} \alpha_{2i}\,\Delta EXD_{t-i} + \sum_{i=0}^{n} \alpha_{3i}\,\Delta EXCHR_{t-i} + \sum_{i=0}^{n} \alpha_{4i}\,\Delta FDI_{t-i} + \sum_{i=0}^{n} \alpha_{5i}\,\Delta GFCF_{t-i} + \sum_{i=0}^{n} \alpha_{6i}\,\Delta INFR_{t-i} + \beta_1 GDPPC_{t-i} + \beta_2 PHE_{t-i} + \beta_3 ODA_{t-i} + \beta_4 FDI_{t-i} + \beta_{5_i} GFC_{t-i} + \beta_{5_i} INFR_{t-i} + \varepsilon_t \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3$$

Where: GDP=Gross Domestic Product, EXD= External Debt, EXCHR= Exchange Rate, FDI= Foreign Direct Investment, GFCF= INFR=Inflation Rate, α_1-α_6= Short-Run Coefficients, β_1-β_6=Long-Run Coefficients, Δ=Difference, Ɛ=Error Term, t=time trend

4. Empirical Analysis

The unit root test is conducted to determine the stationarity of the data. Table 1 provides the descriptive statistics of the data. It shows that Gross Domestic Product (GDP), Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR) is 7.669672, 0.281189, 3.048178, 2.799937, 3.281294, 2.478995 respectively. It was observed that Gross Domestic Product (GDP) is positively skewed while Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR) were negatively skewed. All the variables were normally distributed as observed from the Jarque-Bera statistics.

Table 1: Descriptive Statistics.

	LGDP	LFDI	LEXD	LEXCHR	LGFCF	LIFR
Mean	7.669672	0.281189	3.048178	2.799937	3.281294	2.478995
Median	7.970809	0.438255	2.883683	3.086030	3.317091	2.325325
Maximum	10.74858	1.756132	4.794467	5.012633	3.973870	4.322807
Minimum	4.910447	-1.609438	1.599388	-0.597837	2.701361	-0.371064
Std. Dev.	2.037530	0.704807	1.111632	1.997094	0.401178	0.930859
Skewness	0.045944	-0.307703	-0.039791	-0.464058	-0.051764	-0.584609
Kurtosis	1.555104	3.383287	1.413348	1.829373	1.720669	4.326725
Jarque-Bera	2.707550	0.678943	3.259908	2.882700	2.127900	4.039395
Probability	0.258263	0.712147	0.195939	0.236608	0.345090	0.132696
Sum	237.7598	8.716861	94.49351	86.79805	101.7201	76.84884
Sum Sq. Dev.	124.5458	14.90259	37.07180	119.6515	4.828313	25.99498
Observations	31	31	31	31	31	31

Source: Author's Computation (2024) Eviews 9.

Estimation of ARDL Bound Test

As it can be seen in table 2 the variables are integrated at different order. This means that the Autoregressive distributive lag ARDL bound test for co integration can be applied to test the various relationships among the variables. Accordingly, ARDL model is estimated using eviews. The dependent variable is GDP while the independent variables are Foreign Direct Investment, External Debt, Exchange Rate, Gross fixed Capital Formation, and Inflation Rate.

Null hypothesis states that there is no cointegration between the coefficients of real GDP and independent variables coefficient, while the alternative hypothesis states that there is significant long run relationship between the real GDP and independent variables.

Table 2: ARDL Bound Test Estimates

Variables	*Levels First differences*					
		T-stat.	*1%*	*5%*	*10%*	*PROB.*
GDP	*I(1)*	*-3.600432*	*-3.679322*	*-2.967767*	*-2.622989*	*0.0121*
EXD	*I(1)*	*-3.141055*	*-3.679322*	*-2.967767*	*-2.622989*	*0.0345*
EXCHR	*I(0)*	*-5.118246*	*-3.679322*	*-2.622989*	*-2.607932*	*0.0003*
INFR	*I(1)*	*-4.028768*	*-3.699871*	*-2.976263*	*-2.627420*	*0.0046*
FDI	*I(0)*	*-5.867248*	*-3.679322*	*-2.967767*	*-2.622989*	*0.0000*
GFCF	*I(1)*	*-3.689734*	*-3.679322*	*-2.967767*	*-2.622989*	*0.0098*

Source: Author's Computation (2024) Eviews 9.

The test was based on two statements of hypothesis, the null which states that there is unit root, implying that variables are not stationary. The alternative hypothesis states that there is no unit root, implying that variables are stationary. However, the review of table two above showed stationarity of variables used for this study with focus on 5% level of significance. From empirical evidence above, the null hypothesis is rejected while alternative hypothesis is accepted, thus concluding that the variables Gross Domestic Product (GDP), Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR) are stationary series.

Table 3 Results of bounds test using F-statistic

F STATISTIC		*9.368306*	
PERCENT	*LOWER BOUND*	*UPPER BOUND*	*OUTCOME*

10%	2.26	3.35	Cointegration
5%	2.62	3.79	Cointegration
2.5%	2.96	4.18	Cointegration
1%	3.41	4.68	Cointegration

F Statistics = 9.368306 K= 5, Actual Sample size = 28; Source: Author's computation Eviews Version 9.

Bound testing approach is based on F-statistics and two critical values which are called lower and upper bound. If the F-statistics is greater than lower and upper bound, the vectors are said to be cointegrated. On the other hand if they are less than the lower and upper bound, they are not cointegrated. If it falls in between the two it is said to be inconclusive. As it is shown in the table 3 above, the F-statistics from the result above is greater than both the lower and upper bound for sample size of 28. Thus, the study concludes that the variables are co integrated.

ARDL Short-Run Estimate for Objective One

The study estimates the short-run model using Akaike Information Criterion for an optimal lag selection and automatically selects ARDL (3, 2, 2, 1, 3, 3). The variables were logged so as to minimize the effect of outliers in the data. The result of the short-run ARDL estimate is presented in Table 4 below.

Table 4: ARDL Short-Run Estimate for Objective One

Dependent variable= D(log(GDP))

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-0.502076	0.218230	-2.300675	0.0504
D(LGDP(-2))	-0.146003	0.169060	-0.863613	0.4129
D(LEXCHR)	-0.155428	0.075902	-2.047743	0.0748
D(LEXCHR(-1))	-0.116817	0.066339	-1.760905	0.1163
D(LEXD)	-0.040370	0.055636	-0.725601	0.4888
D(LEXD(-1))	-0.446458	0.103394	-4.318044	0.0026
D(LGFCF)	0.014588	0.187513	0.077800	0.9399
D(LFDI)	0.111129	0.033154	3.351927	0.0101
D(LFDI(-1))	-0.027968	0.032033	-0.873108	0.4080
D(LFDI(-2))	-0.075655	0.040167	-1.883485	0.0964
D(LINFR)	-0.079405	0.041052	-1.934247	0.0891
D(LINFR(-1))	0.022594	0.020938	1.079085	0.3120
D(LINFR(-2))	0.030695	0.021720	1.413208	0.1953

CointEq(-1)	-0.013534	0.047024	-0.287809	0.7808
R-squared=0.999802, Prob (F-statistic)=0.00000				

Source: Author's Computation, 2023 using EVIEWS 9.

The variables Gross Domestic Product (GDP), Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR) were logged to minimize the effect of outliers in the data. Thus, the result of the short-run ARDL model is presented in Table 4. The p-values of constant and trend shows significant values less than 0.05 percent, therefore the study utilized constant and trend to estimate this analysis. The rule of thumb states that if p-value is less that 5 percent or 0.05 it shows are positive significance order wise, it is insignificant. The results however suggest that, the coefficient of lagged dependent variable (LGDP(-1)) and D(LGDP(-2)) has negative and insignificant value at 5 percent level, implying that the current level of Gross domestic product does not significantly depends on previous information of gross domestic product in Nigeria.

The coefficient of Gross fixed Capital Formation has positive and insignificant values at 5 percent level. This suggests that, Gross fixed Capital Formation have a insignificant positive effect on economic growth in Nigeria in the short-run. Thereby, indicating that, a unit increase in Gross fixed Capital Formation rate will lead to increase in economic growth in Nigeria by 0.014588 percent. Additionally, the coefficient Inflation rate at lag 1 and lag 2 (INFR(-1), (INFR(-2)) has positive and insignificant values at 5 percent level. This suggests that, Inflation Rate at lag 1 and lag 2 have insignificant positive impact on economic growth in Nigeria in the short-run. Thereby, indicating that, a unit increase in inflation rate will lead to increase in economic growth in Nigeria by 0.022594 and 0.030695 percent respectively.

For the Error Correction Term (ECT), the coefficient showed significant negative value (-0.013534) at 5 percent level which implied that there is a long run relationship among the variables; Gross Domestic product is explained by Foreign Direct Investment (FDI), External Debt (EXD), Exchange Rate (EXCHR) Gross fixed Capital Formation (GFCF) and Inflation Rate (INFR). while only less than 1 percent is explained by the error term. The significant negative coefficient of the ECT term implied that there is an adjustment in the system if any disequilibrium occurs.

Table 5 ARDL Long-Run Estimate

Dependent Variable=log(GDP)				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LEXCHR	5.940441	18.123347	0.327778	0.7515
LEXD	30.707228	111.294112	0.275911	0.7896
LGFCF	-45.905248	162.969871	-0.281679	0.7853
LFDI	17.455246	63.938460	0.273001	0.7918
LINFR	-22.441020	83.346610	-0.269249	0.7946
C	123.888418	421.999940	0.293574	0.7766

Source: Author's Computation, 2023 using Eviews 9.

The results revealed that exchange rate (EXCHR) has insignificant positive impact on Economic Growth in the long-run. Precisely, the coefficient revealed that a unit increase in EXCHR will results in about 5.940441 percent insignificant increase in Economic Growth in Nigeria. The results also showed that External debt (EXD) has positive and insignificant impact on Economic Growth in the long-run. The coefficient explained that a unit increase in External Debt (EXD) will results in about 30.707228 percent significant increase in Economic Growth in Nigeria. The results also showed that inflation rate (GFCF) has insignificant negative impact on Economic Growth in the long-run. The coefficient explained that a unit increase in GFCF will results in about 45.905248 percent insignificant reduction in Economic Growth in Nigeria. Additionally, Foreign Direct Investment (FDI) has insignificant positive impact on Economic Growth in the long-run. Precisely, the coefficient revealed that a unit increase in FDI will results in about 17.455246 percent insignificant increase in Economic Growth in Nigeria.

Diagnostic Check

The study conducts diagnostic test to ascertain the reliability of the above ARDL estimates and presents the result in Table 6. From the above diagnostic test results, the probability value of the JarqueBera statistic is more than 5 percent which implied that the model has residual that is normally distributed. Similarly, the probability values of the observed R squares for both Breusch-Godfrey Serial Correlation LM test and Breusch-Pagan-Godfrey heteroscedasticity test are more than 5 percent which implied that the model is free from serial autocorrelation and heteroscedasticity problem. In addition, the parameters of the model are stable because the CUSUM plot in Figure 1 above falls within the 5 percent critical bound.

Table 6: Diagnostic Check

Test	***Statistic***	***P-Values***
Heteroskedasticity :Breusch-Pagan-Godfrey	*1.200057*	*0.4152*
Ramsey RESET Test	*0.994089*	*0.3533*
Breusch-Godfrey Serial Correlation LM	*0.572908*	*0.5920*
Heteroskedasticity Test Arch	*1.120651*	*0.2999*

Source: Author's Computation, 2023 using EVIEWS 9.

The a priori expectation is that debt would enhance economic growth in line with the postulate of Keynesian theory. The result was not so. Instead, debt had negative impact on economic growth. This was in line with the findings of Atique and Malik (2012), Patillo et al (2004), Ogege and Ekpudu (2010) and Ezeabasili et al (2011). However, this was in contrast to the findings of Amooteng and Anoako (1996), Iya et al (2013), Bamidele and Joseph (2013); and Sulaiman and Azeez (2012) who found that external debt to have a positive relationship with economic growth. The positive correlation of debt and economic growth could be due to good debt utilization and management as seen in Asian Tigers – Malaysia, Singapore, Indonesia and Taiwan. (Momodu, 2012).

5. Conclusion and Recommendations

The study examines the impact of external debts on economic growth using ARDL approach. The findings show a negative relationship between external debt and growth in Nigeria. While it is crucial for borrow both for private and public investment, it is expedient to utilize the funds more efficiently for results. This is backed by both theory and empirical studies. It should be approached with caution, ensuring optimal utilization and higher return than the interest (cost of fund). To sum, exchange rate fluctuation has positive impact on the Nigerian economy while external debt stock and debt service payment have negative impacts on the same economy.

The study made the following recommendations, which are aimed at ensuring efficient utilization of external debts in Nigeria. Debt Management Office (DMO) should set mechanisms in motion to ensure that loans are utilized for the purpose for which they were acquired. This could be achieved through proper monitoring of the use to which the funds are put. Government should

aggressively pursue the process of diversification of the economy. This will result in buoyant and robust economy which will reduce the need for external debt to the barest minimum.

Reference

Abula, M., & Ben, D. M. (2016). The impact of public debt on economic development of Nigeria. *Asian Research Journal of Arts & Social Science,* 1(1), 1-16.

Ademola, I. S, Olaleya, S.O., and Olusiyi A. E (2013). External debt and the Nigerian economy. *International Journal of Humanities and Social science Invention,* 2.

Arize, A.C, Sang T. & Slottie D.J. (2000). Exchange rate volatility and foreign trade: Evidence from thirteen LDCS. *Journal of Business and Economic Statistics*. 18(1), 10- 17.

Thao, P. T. P. (2018). Impacts of public debt on economic growth in six ASEAN countries. Retsumeikan *Annual Review of International Studies,* 17(1), 63–88.

Arnone, M., Bandiera, L., & Presbitero, A. (2005). External debt sustainability: Theory and empirical evidence. Retrieved from http://www3.umcatt.it/dipartmenti/DlSES/allegati/ArnoneBandicraPresbitero .pdf

Audu, I. (2004). " The impact of External debt on Economic growth and Public Investment:The case of Nigeria" *African Institute of Economic Development and Planning* (IDEP) Dakar Sengal.

Anyanwu, J. C. & Oaikhenan, H. E. (1995). Modern macroeconomics: *Theory and applications in Nigeria.* Benin, Nigeria: Department of economics and statistics, university of Benin.

Ayadi F. S. and Ayadi F.O. (2008). The impact of external debt on economic growth: A comparative study of Nigeria and South Africa". *Journal of Sustainable development in Africa,* 10(3).

Chenery, H.B.; and Strout, A. (1966). Foreign assistance and economic development. *American Economic Review*, 56.

Elbadawi, Ibrahim A.; Ndulu, Benno J.; Ndungu, Njuguna (1999). *Debt overhang and Economic Growth in Sub-Saharan Africa. External Finance for Low-Income Countries.* Iqbal, Zubair, and Ravi Kanbur (eds). Washington D.C. IMF Institute Chapter 5.

Elom-Obed, F. O., Odo, S. I., Elom-Obed, O., & Anoke, C. I. (2017). Public debt and economic growth in Nigeria. *Asian Research Journal of Arts & Social Sciences,* 4(3), 1–16.

Eme D.A & Olugboyega, O.A (2012). Exchange rate and macroeconomic Aggregate in Nigeria, *Journal of Economics and Sustainable Development*, 3(2), 93-102.

Fajana, F.O., (1993). Nigeria debt crisis. United National Economic Commission for African Socio-Economic Research and planning Division Addis-Ababa, Ethiopia.

Friday, E., Fidelis, O., Udeme, U., & Olumide, A. (2016). Impact of government expenditure on economic growth in Nigeria: A disaggregated analysis. *Asian Journal of Economics and Empirical Research* 3(1), 113-121.

Gómez-Puig, M., & Sosvilla-Rivero, S. (2017). Public debt and economic growth: Further evidence for the Euro Area*. Research Institute of Applied Economics, Working Paper* 2017/15, 1–37.

Igbodika, M. N., Jessie, I. C., & Andabai, P. W. (2016). Domestic debt and the performance of Nigerian economy (1987-2014): An empirical investigation. *European Journal of Research and Reflection in Management Science*, 4(3), 34-42.

Ijirshar, V. U., Joseph, I., & Godoo, M. (2016). The relationship between external debt and economic growth in Nigeria, *international Journal of Economics & Management Sciences.* 4(8).

Kabadiya, B., Uzun, A. and Karakoyi, C. (2012). The impact of external debt on economic growth in transitional economies*. Chinese Business Review* Vol. ll

Krugman Paul (1988). Financing vs forgiving a debt overhang: Some Analytic notes. *Journal of Development Economics,* 29, 253-268.

Lucky, E. U., & Godday, O. O. (2017). The Nigeria debt structure and its effects on economic performance. *International Journal of Business and Management Review*, 5(10), 79-88.

Mbah S. and Amassoma D. (2014). The linkage between foreign aid and economic growth in Nigeria.

International Journal of Economic Practices and Theories, 4(6),

Mhlaba, N., Phiri, A., & Nsiah, C. (2019). Is public debt harmful towards economic growth? New evidence from South Africa. *Cogent Economics & Finance*, 7(1), 1603653.

Muhammad, U. D. & Fayyaz, A. (2015). External debts and exchange rates of oil producing and I non-oil producing Nations: evidence from Nigeria and Pakistan. *Journal of Advanced Management Sciences.* 3(1), 8-12.

Ndubuisi, P. (2017). Analysis of the impact of external debt on economic growth in an emerging economy: Evidence from Nigeria. *African Research Review*, 11, 156-173.

Obudah, B.C. and Tombofa, S.S. (2013). Effects of interest rate and debt on equity investment. *American Journal of Humanities and Social Sciences,* 1.

Ogbeifun, L. B. (2007). Effects of petroleum products pipeline vandalism on society., employee and organizational productivity: the dilemma of downstream operation in Nigeria. *Journal of Economics and Sustainable Development*. 5(8), 22-34.

Ogbonna, O., Ihemeje, I., Obioma, O., Hanson, H., & Amadi, A. (2021). Impact of external debt management on economic growth of Nigeria. *Journal La Bisecoman*, 2, 25-41.

Okoye, L. U., Modebe, N. J., Erin, O. A., & Evbuomwan, G. O. (2013). Effect of external debt on economic growth: Evidence from Nigeria. Sustainable Economic Growth, Education Excellence, and Innovation Management through Vision 2020. 4046-4058

Okwu, A. T., Obiwuru, T. C., Obiakor, R. T., & Oluwalaiye, O. B. (2016). Domestic debt and economic growth in Nigeria: Data-based evidence. *Green Journal of Economics and Accountancy, 5 (1), 1-12.*

Olasode, O.S. & Babatunde, T.S. (2016). External debts and economic growth in Nigeria: An empirical study using autoregressive distributed lag model. *Business and Economics Journal*, 6(3), 37-43.

Paul, N. (2017). Analysis of the impact of external debt on economic growth in an emerging economy: Evidence from Nigeria. *African Research Review*, 11(4), 156-173.

Precious, L. N. (2015). Effects of public debt on economic growth in Swaziland. *International Journal of Business and Commerce,* 5(1) 1-4

Rodric, D., (2006). The real exchange rate and economic growth. Harvard, University Cambrige, September.

Ugwuegbe, S. U., Okafor, I. G., & Akarogbe, C.A. (2016). Effect of external borrowing and foreign aid on economic growth in Nigeria *International Journal of Academic Research in Business and Social Sciences,* 6(4), 155-175.

Pattilo C., Poirson H. and Ricci L. (2002). External debt and growth. *Review of Economics and Institutions.* 2(3)

Paul, N. (2017). Analysis of the impact of external debt on economic growth in an emerging economy: *Evidence from Nigeria African Research Review.* 11(4), 156-173.

Saungweme, T., Odhiambo, N. M., & Camarero, M. (2019). Government debt, government debt service and economic growth nexus in Zambia: A multivariate analysis. *Cogent Economics & Finance, 7*(1), 1622998.

Thao, P. T. P. (2018). Impacts of public debt on economic growth in six ASEAN countries. *Retsumeikan Annual Review of International Studies*, 17(1), 63–88.

Umaru, A. Hamidu, A.A, and Musa, S. (2013). External debt and domestic Impact on the growth of the Nigerian Economy. *International Journal of Educational Research*, 12(5).