# The impact of external debt on economic growth in Nigeria

OPUBA Vincent Erorogba

*Department of Art and Humanities, School*
*Of General Studies, Delta State Polytecnic, Ogwashi Uku, Delta State-Nigeria*

## Abstract

The study examined whether external debt drives the growth rate of the Nigerian economy for the period of 1981 - 2021. Secondary data was collected from World development indicators and CBN statistical bulletin. Descriptive statistics, unit root test, co-integration test, correlation matrix and error correction model were conducted. Findings revealed that in the long run external debt has a positive effect on economic growth in Nigeria at 5% level of significance. In the short run, debt external debt also had positive effect on economic growth but not statistically significant at 5% level. Exchange rate and inflation rate responded negatively to economic growth in Nigeria both in the long run and short run at 5% level of significance. Capital stock both in the long run and short run responded negatively to economic growth in Nigeria at 5% level of significance. The result revealed 84.4% speed of adjustment to equilibrium. The study recommended that the debt management office should establish a maximum borrowing limit for state and federal governments. Instead of taking on further external debt, Nigeria could utilise her existing foreign reserves, which will guarantee increased real economic development and prevent capital flight. short-term domestic borrowings should be contracted than short-term foreign borrowings in order to stimulate economic development because short-term domestic borrowings have a greater impact on GDP.

## I.    Introduction

Government spending is a function of her income. Like corporate entities' government articulate her expected income and expenditure on yearly basis in a budget. This is a plan of action prepared by government or corporate entity expressed in financial terms, for a given period, usually a year. Sometimes the expected expenditure exceeds the expected income, when that happens, it is known as budget deficit in financial parlance (Essien, Agboegbulem, Mba & Onumonu, 2016).

The short fall in income is in most cases financed through borrowing with attendant cost and associated terms and conditions relating to payment patterns at maturity. Borrowing by countries is occasioned by inability to raise enough revenue from local sources for the administration of government business (Essien et al, 2016). A country's economic growth and development could be accelerated by borrowed money if it is used wisely. Therefore, public borrowing should have a significant impact on a country's growth and investment up until a point where a high level of external debt servicing kicks in and affects growth as the emphasis shifts from financing private investment to debt repayment (Sasmal & Sasmal, 2018; Nur, Shafinar & Abdul, 2019).

According to Chinanuife, Eze, and Nwodo (2018), borrowing is OK as long as it is done wisely. Like any other nation, Nigeria has turned to borrowing to cover its budget deficit. In the first decade of the 1970s, her mounting debt became apparent. Three main factors might be cited as the origins of the debts: First, there was the impact of the civil war that raged over the nation from mid-1967 to early 1970. The eastern region of Nigeria saw essentially little economic activity throughout the conflict. According to Chinanuife et al. (2018), almost all of the industries were damaged while some businesses left the area. After the conflict, the federal government responded by implementing the 3Rs strategy, which stands for Reconstruction, Rehabilitation, and Reconciliation. It suggested that the government's policy goal was to give these highlighted elements of the economy top importance, particularly in the eastern region. According to Chinanuife et al. (2018), the implementation was a difficult undertaking that needed a significant financial investment. In an economy, there are two types of borrowing: domestic and international.

Understanding when national debt becomes a burden is important given the enormous advantages of borrowing. Csaba and Gabriella (2017) claim that

indicators of national debt load and economic instability include increased debt overhang (total debt-to-GDP ratio), debt service-to-government revenue ratio, and short-term external debt-to-foreign reserves ratio over time. It becomes challenging to repay the original amount and the agreed-upon interest if the borrowed money are not used to support commercially viable ventures. Nigeria, like the majority of developing countries, has seen several economic upheavals brought on by a lack of resources, the demise of domestic businesses, recurring fiscal deficits, poor exports, a persistent balance of payment deficit brought on by growing imports, etc. This situation has led to widening of savings-investments gap and accumulation of debt that requires a large proportion of government revenue and drawdown on foreign reserves to service (Onyele & Nwokoacha, 2016). A careful investigation of this phenomenon using annual time series data for Nigeria indicates that rising national debt over a long period triggers economic instability due to inadequate government revenue, foreign reserves and domestic income to cover the debt service cost.

In order to finance its deficit, Nigeria usually borrows money from wealthier nations and international financial organizations, including the World Bank, African Development Bank (ADB), and International Monetary Fund (IMF), among others. Unfortunately, Nigeria's expanding national debt has started to exceed the country's capacity to generate money and draw down on its foreign reserves, restricting much-needed public capital projects and economic output. Furthermore, it has been claimed that these borrowed monies are frequently mishandled and misappropriated by public officials, failing to be employed for economically beneficial activities as a result. This, in turn, causes debt load, capital flight, and economic instability over the long term (Onyele & Nwokocha, 2016; Iyatse, 2020). Due to a high rate of embezzlement and shady practices among public officials, Nigeria has actually failed to prudently use borrowed funds over the years, leading former British Prime Minister David Cameron to call Nigeria "fantastically corrupt" at an anti-corruption summit in London. Due to the quantity of debt, local investments and production have been hampered, leading to various types of debt restructuring with some concessional borrowings as well as foreign debt relief by the Paris Club in 2005 (Ekperiware & Oladeji, 2012). Ironically, 14 years after the debt reduction, Nigeria's debt level is still growing with little economic expansion.

According to Soludo (2003), countries borrow for two main reasons: macroeconomic ones like boosting investment, particularly in infrastructure (education and health) or to finance temporary balance of payments deficits to lower nominal interest rates abroad, a lack of domestic long-term credit, or to get around strict budgetary restrictions. This implies that borrowing by the government is a strategy for boosting development and the economy. Additionally, he thinks that when a country's initial stock of debt reaches a certain level, paying it becomes difficult, and the country ends up on the wrong side of the debt-laffer curve, where debt crowds out investment and development. According to Tajudeen (2012), "Investment is flowing intermittently in both positive and negative directions, which appears to be the situation of Nigeria now. This will therefore result in high-speed growth with a favourable influence on poverty. When contractual loans are not properly used, investment returns become insufficient to cover maturing liabilities and also impede economic growth; thus public debt becomes a burden for nations (Erhieyovwe & Onovwoakpoma, 2013). It is against this background this study aims to examine whether external debt drives the growth rate of the Nigerian economy.

## II.    Literature Review
### 2.1    The Debt Overhang Theory
The term "debt overhang" comes from the corporate finance literature and refers to a situation where a firm's debt is so high that any profits from new investment projects are completely appropriated by existing debt holders; even projects with a positive net present value cannot lower the stock of debt for the firm or increase the firm's value (Kim, Lisic, Myers, & Pevzner 2011). The term "debt overhang" comes from the corporate finance literature and refers to a situation where a firm's debt is so high that any profits from new investment projects are completely appropriated by existing debt holders; even projects with a positive net present value cannot lower the stock of debt for the firm or increase the firm's value (Kim, Lisic, Myers, & Pevzner 2011). Thus, for a given tax rate, lower current investment levels result in poorer growth, lower government earnings, lower ability to pay, and lower predicted debt values. Because any new loans would only be worth a fraction of their nominal value, no new creditor would lend money to a country that was experiencing the negative impacts of debt overhang (Kobayashi, 2015). As a result, these countries would not see net asset flows. The "Debt Laffer curve" describes a situation in which partial debt cancellation that lowers the expected tax burden can make both lenders and borrowers better off by increasing

investment and growth and, as a result, tax revenues and the value of debt (Arai, Takuma, & Keigo, 2014). Nations that experience the negative effects of debt shade may be situated on some unacceptable side of the "Debt Laffer curve" Debt cancellation necessitates a coordinating mechanism that compels all creditors to suffer some minimal losses, even though reducing debt may put banks in an ideal position. Arai, Takuma, and Keigo (2014) state that without such a coordination mechanism, one creditor will choose to wait it out while other creditors partially discharge their claims.

### 2.2      Empirical review

The topic of public debt and its connection to macroeconomic factors has led to an increase in research on the factors that determine the burden of public debt, its effects on the economy, and the policy ramifications. Some of the empirical works discussed in this section analyze public debt and how it affects economic growth, with various writers employing various economic factors including prices (inflation), exchange rates, and interest rates.

The link between Nigeria's governmental debt and economic development was investigated by Nwanedo (2021). For the period of 1981 to 2019, the study examined yearly time series data for the consumer price index, exchange rate, domestic debt stock, and external debt stock. In this work, the multiple regression analysis, Unit Root test, Johansen cointegration test, and Granger causality test were all used. According to the results of the multiple regression study, domestic debt in Nigeria has a positive link with economic development whereas external debt has a substantial negative relationship with it.

Using multiple regression analysis, Alagba and Idowu (2019) looked at the impact of Nigeria's public debt on economic development over the course of 38 years, from 1981 to 2018. The Debt Management Office and the Central Bank of Nigeria's Statistical Bulletin were used as sources for pertinent secondary data.  The results demonstrated that while the Federal Government of Nigeria's internal debts have a positive and statistically significant impact on economic growth in Nigeria, the impact of its overseas obligations is less significant.

In his 2018 study, Panagiotis looked at the relationship between public borrowing and factors that affect economic development in Greece, including investment, trade openness, private and public consumption, and population growth. The information utilized ranges from 1970 to 2016. Utilizing auto-regressive distributed lag (ARDL)

modelling and the chosen unit root tests, the investigation was conducted. The unit root tests revealed a mixed level of order 0 and order 1 variable integration. The ARDL model's findings showed that some variables have a long-term link with one another. Additionally, it demonstrated that trade openness, government borrowing, and population expansion had a negative influence on economic growth, whereas private and public consumption, investment, and trade were positively correlated with growth.

In their 2017 study, Public Borrowing and Nigeria's Economic Growth, Elom-Obed, Odo, Elom, and Anoke used the cointegration test, Vector Error Correction Model (VECM), and Granger causality test to analyze the relationship between public borrowings and economic growth in Nigeria over the years 1981–2015. Real Gross Domestic Product, internal private savings, foreign borrowings, and internal borrowings were the variables used in the analysis. According to the empirical findings, both domestic and international borrowing have a negative and considerable impact on Nigeria's economic growth. More specifically, the findings demonstrated that real gross domestic product (RGDP), which is the sum of all domestic and foreign borrowings, is caused by both types of borrowing.

In their 2017 study, Ujuju and Oboro investigated the connection between Nigeria's economic development from 1990 to 2015 and the composition of its public debt. The study uses pertinent data from the CBN statistics bulletin on various topics, and the analysis is based on two regression techniques: basic and multiple. The basic regression analysis shows a substantial positive correlation between Nigeria's GDP and total public debt at the 0.05 level. External debt is adversely correlated with Nigeria's GDP, according to multiple regression analysis, whereas domestic debt is favourably correlated with Nigeria's GDP, which is significant at the 0.05 level.

Alejandro and Ileana (2017) examined the impact of government borrowings on gross internal product in 16 Latin American economies including Bolivia, Argentina, Chile, Brazil, Costa Rica, Colombia, Dominican Republic, Mexico, Honduras, Panama, Nicaragua, Peru, Paraguay, Venezuela and Uruguay for the period 1960- 2015 using Two Stage Least Squares (2-SLS) in the analysis. The results indicated that borrowings have a positive impact on GDP growth but declines to close to zero beyond public borrowings-to-GDP ratios between 64% and 71%; up to this threshold, additional borrowings have a stimulating impact on growth.

The impact of government borrowing on Nigeria's economic growth was studied by Abula and Ben (2016). The study carried out Granger Causality test, the Error Correction Method (ECM), and the Johansen cointegration test were used for the analysis, which covered the years 1986 to 2014. The findings suggested that the factors had a long-term association. The ECM's findings showed that while Nigeria's economic development is significantly influenced by its domestic borrowing stock, paying international debt and the stock of foreign debt have a negative and negligible impact on it. The findings further demonstrated that internal borrowing service payments have a negative and considerable impact on Nigeria's economic growth.

Peter and Ferdinand (2016) used secondary data from the National Bureau of Statistics fact book and the Central Bank of Nigeria statistics bulletin from the years 1981 to 2014 to analyze the relationship between Nigeria's debt load and economic progress. The Johansen test and Granger Causality findings indicate that different borrowings from stocks contributed to the success of the Nigerian economy.

### 3.1 Data description
The study utilised secondary data sourced from, world development indicators and CBN statistical bulletin for the period 1981 to 2021

### 3.2 Theoretical framework and model specification
Following the earlier studies, we base our model on the theoretical underpinning. This study is based on the Solow growth model developed by Robert Solow and Trevor Swan in 1956.The Solow growth model is developed based on a Cobb-Douglas production function given by the form:

$$Y=F (K, L) =K\alpha, L1-\alpha ...........................(1)$$

Where
Y=output
K=capital input
L=labour input
$1-\alpha$ and $\alpha$ are output elasticities of capital and labour respectively and $\alpha$ is a number between 0and 1. The other important equation from the Solow growth model is the capital accumulation equation expressed in the form;

$$K=sY-dK ...........................................(2)$$

Where
K=change in capita stock

sY=gross investment
dK=depreciation during the production process
Dereje (2013) explains how a Solow growth model accounts for external debt and economic development. He claimed that a closed economy using labor and capital as its primary sources of production is the foundation of the Solow growth model. According to this scenario, the impact of domestic saving, which is then employed as investment in a closed model, may be used to illustrate how foreign debt affects growth. Therefore, the overall impact of foreign debt on the Solow growth model may be examined by examining the specific implications of the debt overhang and debt crowding hypotheses.

### 3.3 Model specification
Cunningham (1993) asserts that economies with growing debt loads devote a sizeable percentage of their financial resources to paying debt obligations, which has a detrimental effect on choices about how to allocate capital and labor in the production function. The following formulation of the model was used for this study:

$$GDPGR = F (EXD, EXR, INF, CAPS,) ...........................................(3)$$

The Above equation can be defined econometrically as below:

$$GDPGR = \beta_0 + \beta_1 EXD + \beta_2 EXR + \beta_3 INF + \beta_4 CAPS + U ...........................................(4)$$

Where;
GDPGR = Gross Domestic Product growth rate
EXD = External Debt Stock
EXR = Exchange Rate
INF = Inflation rate
CAPS = Market capitalization
$U_i$ = error term
$\beta_0$ = constant, $\beta_0$, $\beta_1$. . . $\beta_4$ = the coefficients of the regression equation

### 3.4 Aprioiri Expectations
Theoretically, the coefficient will take the following outcome:
$\beta_1 > 0$, $\beta_2 > 0$, $\beta_4 > 0$; $\beta_3 > 0$. Thus, external debt, exchange rate and market capitalization are expected to have a positive effect on economic growth rate. However, inflation is expected to have negative relationship with economic growth rate.

### 3.5 Statistical Analyses
The method of analyses is regression. Co-integration and Error Correction Model (ECM)was engaged in the analyses. The stationarity state of the variables was examined using augmented Dickey Fuller (ADF). Long-run relation was examined using

Engel-Granger residual based co-integration tests. The autoregressive distributed lag model is used in estimating the short-run parsimonious ECM. The ordinary Least Square method will be used to estimate the long-run relationship.

## IV. Empirical Results and Discussion

This section begins with the descriptive statistics and correlation matrix analysis of the various variables used in estimating our regression model. Also, the unit root test and co-integration test were conducted. The ordinary least and error correction model were conducted. Furthermore, diagnostic tests such as normality residual tests, Serial correlation and Heteroscedasticity test were conducted to ascertain the credibility of our model.

### 4.1          Descriptive Statistics

Agung (2004) pointed out that summary descriptive statistics for variables in a data set have a very important role in data evaluation and measurement of each variable for further advance statistical analysis. Table 4.1 presents the summary descriptive statistics for the variables under study

**Table 4.1: Descriptive statistics**

|              | GDPGR     | DEBT     | CAPS     | EXR      | INF      |
|--------------|-----------|----------|----------|----------|----------|
| Mean         | 3.041468  | 3.11E+10 | 36.08710 | 108.1460 | 18.94905 |
| Median       | 3.647187  | 2.96E+10 | 33.83469 | 111.2313 | 12.87658 |
| Maximum      | 15.32916  | 7.77E+10 | 89.38105 | 403.5800 | 72.83550 |
| Minimum      | -13.12788 | 1.14E+10 | 14.90391 | 0.617708 | 5.388008 |
| Std. Dev.    | 5.385440  | 1.45E+10 | 18.63680 | 110.1323 | 16.65935 |
| Skewness     | -0.819168 | 1.384176 | 1.117120 | 0.984889 | 1.854175 |
| Kurtosis     | 4.620614  | 5.189625 | 4.039272 | 3.211465 | 5.306552 |
| Jarque-Bera  | 9.072163  | 21.28282 | 10.37285 | 6.704766 | 32.58139 |
| Probability  | 0.010715  | 0.000024 | 0.005592 | 0.035001 | 0.000000 |
| Sum          | 124.7002  | 1.27E+12 | 1479.571 | 4433.986 | 776.9108 |
| Sum Sq. Dev. | 1160.118  | 8.38E+21 | 13893.22 | 485165.0 | 11101.36 |
| Observations | 41        | 41       | 41       | 41       | 41       |

*Source: Author's computation (2023) using Eviews*

The table above shows the descriptive statistics of the variables used in estimating our regression model. It is revealed that economic growth rate (GDPGR) has an average value of 3.04 with a standard deviation of 5.38. External debt (DEBT) was seen to have an average value of 3.11 with a standard deviation of 1.45. Exportation of goods and services (EXPORT) was seen to have an average value of 21.47 with a standard deviation of 6.730. Importation of goods and services (IMPORT) is seen to have an average value of 16.99 with a standard deviation of 3.841. Inflation rate (INF) was seen to have an average value of 21.47 with a standard deviation of 15.930. Interest rate (INT) is seen to have an average value of 3.199 and a standard deviation of 10.45916.

### 4.2      Correlation Matrix

Pearson Correlation depicts the strength of linearity among variables under investigation. Thus the result of our Pearson correlation is given in table 4.2 below.

**Table 4.2: Correlation matrix**

|       | GDPGR     | DEBT      | EXR       | INF       | CAPS      |
|-------|-----------|-----------|-----------|-----------|-----------|
| GDPGR | 1.000000  | 0.099087  | 0.157743  | -0.207454 | -0.623289 |
| DEBT  | 0.099087  | 1.000000  | 0.697282  | 0.051541  | -0.307631 |
| CAPS  | -0.623289 | -0.307631 | -0.658730 | 0.201779  | 1.000000  |
| EXR   | 0.157743  | 0.697282  | 1.000000  | -0.316883 | -0.658730 |
| INF   | -0.207454 | 0.051541  | -0.316883 | 1.000000  | 0.201779  |

*Source: Author's computation (2023) using Eviews*

Table 4.2 above reveals the correlation between the variables used in the model. It is seen that economic growth rate (GDPGR), external debt (DEBT) and exchange rate have a positive correlation with economic growth rate in Nigeria. However, market capitalization (CAPS) and inflation rate have negative correlation with economic growth rate in Nigeria.

**4.3 Unit Root Test**

Most time series data are not usually stable in nature; hence they are most times not suitable for forecasting purposes. Thus, the need arises to check the stationary status of the data used. This test was carried out using augmented dickey-fuller ADF test and Phillip-perron test.

**Table 4.3: unit root test result**

| Variables | ADF 0(1) | ADF1(1) | PERRON0(1) | PERRON1(1) |
|---|---|---|---|---|
| GDPGR | -3.142158 ( 0.0315) | -10.35745 (0.0000) | -4.273959 (0.0016) | -10.70626 ( 0.0000) |
| DEBT | -0.529224 (0.8745) | -3.642217 (0.0092) | 0.226760 (0.9710) | -3.555863 (0.0115) |
| EXR | 2.794185 (1.0000) | -3.977945 (0.0038) | 3.150929 (1.0000) | -3.886917 ( 0.0048) |
| CAPS | -3.788519 (0.0062) | -4.448011 (0.0010) | -3.689195 (0.0080) | -4.327847 (0.0014) |
| INF | -3.009107 (0.0426) | -6.549707 (0.0000) | -2.877395 (0.0570) | -10.36868 (0.0000) |

**Source:** *Author's computation (2023) using Eviews*

The table above shows the unit root result of the variables used in the model. It is revealed that using ADF test all the variables were not stationary at levels. However, all the variables became stationary after first difference. Also, using Philip-Perron test, all the variables were not stationary at levels but they all became stationary at second difference.

**4.4      Co-Integration Test**

It is important we consider the relationship among macroeconomic variables in the long-run. If a long run relationship exists among the variables, then policy formulation will be reliable based on the perceived relationship among them. Against this backdrop, the Engle-granger co-integration test was conducted to examine the presence of long-run relationships among the variables.

**Table 4.4: Engel-Granger two step procedure**

| Null Hypothesis: ECM has a unit root | | |
|---|---|---|
| Exogenous: Constant | | |
| Lag Length: 0 (Automatic - based on SIC, maxlag=9) | | |
|  | t-Statistic | Prob.* |
| Augmented Dickey-Fuller test statistic | -4.777061 | 0.0004 |
| Test critical values:          1% level | -3.605593 | |
|                                 5% level | -2.936942 | |
|                                 10% level | -2.606857 | |
| *MacKinnon (1996) one-sided p-values. | | |

**Source:** *Author's computation (2023) using Eviews;*

From table 4.4 above, it is observed that the generated residual series known as the error correction term (ECM) subject to unit-root test rejects the null hypothesis of "no co-integration" for test model with intercept deterministic trend. This implies that the error correction term is stationary at level suggesting that the linear combination of all the variables used in the model do yield stationarity. Therefore, there is existence of long-run relationship among the variables used in the model.

**4.5 Regression Result and Interpretation**

**Table 4.6**: **Long and short run model** (GDPGR)

| Long run model (OLS) | | | Short run model (ECM) | | |
|---|---|---|---|---|---|
| Variables | Coefficients | Probability | Variables | Coefficients | Probability |
| C | 15.63516 | 0.0000 | C | 0.393717 | 0.5679 |
| DEBT | 1.70E-10 | 0.0092 | D(DEBT) | 8.41E-11 | 0.4653 |
| EXR | -0.046511 | 0.0001 | D(EXR) | -0.065522 | 0.0553 |
| CAPS | -0.301715 | 0.0000 | D(CAPS) | -0.301970 | 0.0146 |
| INF | -0.104016 | 0.0113 | D(INF) | -0.110845 | 0.0070 |
| R-square | 0.612849 | N/A | R-square | 0.538008 | N/A |
| F-statistics/Prob | 14.24673 (0.000) | N/A | F-statistics/Prob | 7.918856 (0.00049) | N/A |
| N/A | N/A | N/A | ECM(-1) | -0.844018 | 0.0001 |

*Source: Author's computation (2023) using Eviews*

The table above shows the result of the long run and short run model estimation. According to the long run estimation (OLS) result, external debt (DEBT) is seen to respond positively to economic growth rate in Nigeria at 5% level of significance. Furthermore, the result reveals that exchange rate, capital stock and inflation rate responded negatively to economic growth rate in Nigeria at 5% level of significance. However, in the short run estimation (ECM model), external debt (DEBT) is seen to respond positively to economic growth rate in Nigeria but not significance at 5% level. Furthermore, the result reveals that exchange rate, capital stock and inflation rate responded negatively to economic growth rate in Nigeria at 5% level of significance.

The R-square values of 0.612 and 0.538 show that all the independent variables (DEBT,EXR, CAPS, INF) can jointly explain 61.2% and 53.8% variation in the economic growth rate in Nigeria. The probability value (0.000) of the f-stat shows that the overall model is statistically significant and thus can be used for forecasting purposes. Based on table 4.6, it is revealed that the Error Correction mechanism (ECM) coefficient (-0.844) in the model is significant = 0.0001. This indicate that the error correction model (ECM) used is valid. The equilibrium value of – 0.844 means it will take 84.4% speed of adjustment for changes in the economic growth rate to return to equilibrium.

**4.6    Discussions of findings**
This study examined whether external debt drives the growth rate of the Nigerian economy. It was revealed that external debt both in the short and long positively drives the growth of the Nigerian economy. The impact of external debt on economic growth was not significant in the short term, but it was at the five percent level of significance in the

long term. This implies that over time, external debt helps Nigeria's economy thrive. Aguwamba and Adeghe (2017) investigate the foreign debt situation and Nigeria's economic expansion in line with this conclusion. The findings show a strong correlation between GDP and external debt. According to Karen and Edith (2021), public debt is a tool used by nations to close their budget gaps and fund economic initiatives that raise citizens' standards of life and advance sustainable growth and development. According to Hameed, Ashraf, and Chaudary (2008), public borrowing should quicken economic growth, particularly when domestic finance is insufficient. As a result of increased output, public debt also raises total factor productivity, which boosts a country's Gross Domestic Product (GDP) growth (Sasmal & Sasmal, 2018). It is impossible to overstate the significance of public debt since it is a powerful driver of economic growth, raising living standards, and reducing poverty. However, it is commonly acknowledged in the international community that high foreign debt in most developing nations is a significant barrier to their capacity to build and maintain their economies. A country's growth and investment should be significantly impacted by public borrowing up to a time where a high degree of external debt servicing kicks in and has an adverse effect on growth as the emphasis shifts from funding private investment to debt repayment (Nur, Shafinar & Abdul, 2019).

Developing nations like Nigeria frequently incur significant public debt, which causes trade debt arrears to accumulate and interest rates to become extremely lenient. For governments, particularly emerging ones, the servicing of accumulated debt presents a number of issues. Due to the fact that such countries' economies are being forced to service debts at rates higher than those at which they were originally incurred, their economic

development is slowed (Karen & Edith, 2021). Developing nations like Nigeria frequently incur significant public debt, which results in the accumulation of trade debt arrears at extremely low interest rates. For governments, especially emerging ones, accumulated debt service payments cause a number of issues. Due to the fact that these countries really have to pay more to service their debt than they did when it was first obtained, their economic development is slowed (Karen & Edith, 2021). The study also showed that in Nigeria, the capital stock, exchange rate, and inflation rate all had adverse effects on economic growth. The effect of exchange rates on output and inflation was studied by Mahonnye & Tenda (2019). According to the research, changes in real exchange rates have a considerable impact on the growth and expansion of real production both in the short run and the long run. Exchange rate volatility, according to Udeh, Ugwu, and Onwuka (2016), has a detrimental effect on the Nigerian economy. In their analysis, Bawa and Abdullahi (2021) found that while inflation has a low-level negative impact on economic activity over the threshold level, it has a large negative impact on growth below it.

All the variables used for estimating our model were found to stationary at second difference. The LM serial correlation result shows that the model has no sign of serial correlation which means the assumption of the linearity of the model has not been violated because of the superiority of the autocorrelation test in accepting of alternative hypothesis. The vector Normality test was also considered to show if the model is normally distributed. From the estimation result the Jarque-Bera statistics values which is not significant at 5%shows that the variables are normality distributed. Another test considered by this study is the heteroscedasticity white test confirms each of the specified equations has a constant variance.

## V. Conclusion and Recommendation

This study examined whether external debt drives economic growth rate in Nigeria. The study adopted the ordinary least squares and error correction model using annual time series data for the period 1981 to 2021 obtained from the CBN statistical database. From the study it is ascertained that external debts are necessary to meet shortfall internal resources, and stimulate the economy. However, it must be properly utilized to avoid serious consequences. Borrowing is not the most important issue but the use to which the fund is deployed. This should be the most important thing agitating the mind of any good accountant and

Economist whenever external debt is contemplated. It should be approached with caution, ensuring optimal utilization and higher return than the interest (cost of fund). External debt is a proportion of the nation's national debt sourced from international individuals, agencies and/or government. It has been observed and confirmed by this study that external debt contributed in positively and significantly towards economic growth in Nigeria under the study period. The significant effect implies that if the foreign borrowing were used for its major purpose without siphoning or diversion to unproductive sector it will enhance economic growth. Thus, an attempt to increase external debt will enhance economic development in Nigeria especially in the long run. From this result it becomes clear that external debt is friendly to economic development. However, the accumulation of the external debt puts pressure on economic growth as external debt repayment and servicing reduces the foreign exchange earnings of the country. Conclusively, Nigeria government should intensify measure to reduce the debt collection of the country and simultaneously increase the development of real sector.

According to the findings of the empirical analysis, it is advised that the debt management office put mechanisms in place to make sure that loans are used for the intended purposes for which they were acquired and channelled toward productive uses, and that sourcing external debts be considered as a means of long-term development rather than just for solving immediate problems. Additionally, based on a set of predetermined criteria, the debt management office should establish a maximum borrowing limit for state and federal governments. Instead of taking on further external debt, Nigeria could utilise her existing foreign reserves, which will guarantee increased real economic development and prevent capital flight. Political leaders should also discourage unnecessary public expenditure and support the fiscal plan (budget). To act as a deterrence, organizations like the Economic and Financial Crimes Commission should bring cases against offenders very away. Additionally, more short-term domestic borrowings should be contracted than short-term foreign borrowings in order to stimulate economic development because short-term domestic borrowings have a greater impact on GDP.

## References
[1]. Abula, M., & Ben, D.M. (2016). The impact of public debt on economic development of

Nigeria. Asian Research Journal of Arts & Social Sciences, 1(1): 1-16.

[2].  Aguwamba, S.M., & Adeghe, R. (2017). External debt crisis and Nigeria's economic growth. International Journal for Research in Business, Management and Accounting, 3(2), 20-40.

[3].  Alejandro, D. J., & Ileana, R. J. (2017). The impact of government debt on economic growth: An overview for Latin America. Department of Economics, University of Perugia (IT), Working Paper, 28, 1-11.

[4].  Amassoma, A., & Odeniyi, B. (2016). The Nexus between Exchange Rate Variation and Economic Growth in Nigeria. Singaporean Journal of Business Economics and Management Studies. 4. 8-28. 10.12816/0027158.

[5].  Arai, R., Takuma K., & Keigo N (2014). "Is Public Debt Growth-Enhancing or Growth-Reducing?," KIER Working Papers 884, Kyoto University, Institute of Economic Research.

[6].  Bawa, S., & Ismaila, A.S. (2021) "Threshold Effect of Inflation on Economic Growth in Nigeria," CBN Journal of Applied Statistics (JAS): Vol. 3: No. 1, Article 3. Available at: https://dc.cbn.gov.ng/jas/vol3/iss1/3

[7].  Chile, N. I. (2020). Public Debt and Economic Growth in Nigeria: Investigating the Optimal Threshold Level. Asian Development Policy Review, 8(2), 112–127. https://doi.org/10.18488/journal.107.2020.82.112.127

[8].  Christabell, M. (2013). The relationship between public debt and economic growth in Kenya. International Journal of Social Sciences and Project Planning Management, 1 (1): 1-21.

[9].  Csávás C., & Csom-Bíró G (2017). "Indicators Used for the Assessment of the Reserve Adequacy of Emerging and Developing Countries. International Trends in the Mirror of Theories," Financial and Economic Review, Magyar Nemzeti Bank (Central Bank of Hungary), vol. 16(1), pages 5-45.

[10]. Dereje, A. E (2013). The Effect of External Debt on Economic growth: Department of economics Magisteruppsats 30 hp | Vårterminen.

[11]. Egbetunde, T (2012). External borrowing and economic growth in Nigeria. Fountain Journal of Management and Social Sciences. 1. 1-9.

[12]. Ekperiware, M.C., & Oladeji, S.I. (2012). External Debt Relief and Economic Growth in Nigeria. American Journal of Economics, 2(7), 195–205. https://doi.org/10.5923/j.economics.20120207.05.

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

[14]. Emmanuel C., & Paul E., & Ozoemena S.N (2018). "Public Debt Spiral and Domestic Investment in Nigeria," Academic Journal of Economic Studies, Faculty of Finance, Banking and Accountancy Bucharest,"Dimitrie Cantemir" Christian University Bucharest, vol. 4(1), pages 153-161, March.

[15]. Engle, R., & Granger, C. (1987) Cointegration and Error Correction: Representation, Estimation and Testing. Econometrica, 55, 251-276. http://dx.doi.org/10.2307/1913236.

[16]. Erhieyovwe, E., & Onovwoakpoma, O. (2013). External Debt Burden and its Impact on Growth: An Assessment of Major Macro-Economic Variables in Nigeria. Academic Journal of Interdisciplinary Studies. 10.5901/ajis.2013.v2n2p143.

[17]. Essien, S.N., Agboegbulem, N.T.I., Mba, M.K., & Onumonu, O.G (2016). An Empirical Analysis of the Macroeconomic Impact of Public Debt in Nigeria, CBN Journal of Applied Statistics Vol. 7 No. 1,125.

[18]. Hameed, A., Ashraf, H., & Chaudhary, M.A. (2008). External Debt and Its Impact on Economic and Business Growth in Pakistan", International Research Journal of Finance and Economics, ISSN 1450-2887, Issue 20, 132-140.

[19]. Isaac, S., & Rosa, G. (2016). Public debt, public investment and economic growth in Mexico, International Journal of Financial Studies, 4(6): 1-14.

[20]. Iyatse, G. (2020). Nigeria's Debt Profile Hits ₦31 Trillion. Retrieved January 10, 2020, from https://guardian.ng/news/nigerias-debt-profile-hits-n31-trillion/

[21]. Iyoha, M.A. & Ekanem O.T. (2002). Introductory Econometrics. Benin City: Mareh Publishers.

[22]. Johansen, S. (1991) Estimation and Hypothesis Testing of Cointegration Vectors in Gaussian Vector Autoregressive Models. Econometrica, 59, 1551-1580. http://dx.doi.org/10.2307/2938278.

[23]. Karen E.C., & Edith A.N (2021). Public debt and economic growth in Nigeria: An empirical investigation; International Journal of Development and Management Review (INJODEMAR) Vol. 16, No. 1.

[24]. Kibui, P. (1997). Impact of external debt on public investment and economic growth in Kenya (1970- 2007), Unpublished MBA Project, University of Nairobi.

[25]. Kim, B., Lisic, L., Myers, L., & Pevzner, M. (2011). Debt contracting and real earnings Social, Science Research Network. Koolma,

[26]. Kobayashi, K (2015). "Public Debt Overhang and Economic Growth," Public Policy Review, Policy Research Institute, Ministry of Finance Japan, vol. 11(2), pages 247-276, March.

[27]. Krugman P. (1988) Financing Overhang: Some Analytical Notes. Journal of Development Economics. 29, 253–268. Available: http://dx.doi.org/10.1016/0304-3878.

[28]. Krugman, P.R. (1998) It's Baaack: Japan's Slump and the Return of the Liquidity Trap. Brookings Papers on Economic Activity, 29, 137-206.

[29]. Lerner, A. P. (1955). Functional Finance and the federal debt social research (Feb. 1943), reprinted in readings in fiscal policy. George Allen and Unwin, London, 475.

[30]. Mahonnye, N., & Tenda, Z. (2019). Exchange rate impact on output and inflation: A historical perspective from Zimbawe.

[31]. Martin, F.M (2009) A positive theory of government debt, Review of Economic Dynamics, Volume 12, Issue 4, 2009, Pages 608-631, ISSN 1094-2025, https://doi.org/10.1016/j.red.2009.02.003. (https://www.sciencedirect.com/science/article/pii/S1094202509000180).

[32]. Nassir, U. H., Wani, H. K. (2016). An evaluation of relationship between public debt and economic growth: A study of Afghanistan. Munich personal RePEc Archive, 75538, 1- 19.

[33]. Nur-Hayati A.R., Shafinar I., & Abdul, R.R, (2019). "How does public debt affect economic growth? A systematic review," Cogent Business & Management,

Taylor & Francis Journals, vol. 6(1), pages 1701339-170, January.

[34]. Nwanedo (2021). Assessing the relationship between public debt and economic growth in Nigeria. Economics Department, Faculty of management and social sciences Baze university, Abuja.

[35]. Obi, C.K. (2014). An estimation of the critical levels of external debt accumulation: The Nigerian experience. International Journal of Sustainable Development, 7(12), 73-82.

[36]. 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.

[37]. Okwu, A., Obiwuru, T., Obiakor, R., & Oluwalaiye, O. (2016). Domestic Debt and Economic Growth in Nigeria: Data-Based Evidence. Greener Journal of Economics and Accountancy. 5. 001-012. 10.15580/GJEA.2016.1.101516164.

[38]. Omotoye, R., & Sharma, H., Ngassam, C., & Eseonu, M. (2006). Sub-Saharan Africa's debt crisis: analysis and forecast based on Nigeria. Managerial Finance. 32. 606-620. 10.1108/03074350610671593.

[39]. Onyele, K.O., & Nwokocha E.B (2016). The relationship between capital flight and Poverty: The case of Nigeria Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development **16** 225-236.

[40]. Onyele, K.O., & Nwadike, E.C. (2021). Impact of National Debt Burden on Economic Stability in Nigeria. Economics and Business, 35, 91 - 106.

[41]. Oyejide, T. (1985) Exchange Rate Policy for Nigeria: Some Options and Their Consequences. Proceedings of a One-Day Workshop, The Nigerian Economic Society, Management of Nigeria's Foreign Exchange Resources, 17-32.

[42]. Panagiotis, P. (2018). The effect of government debt and other determinants on economic growth: The Greek experience. Economies, 6(10): 1-19.

[43]. Peter, A.O., & Ferdinand, I.O. (2016). Nigeria's debt burden and development tangle. Global Journal of Management and Business Research: B Economics and Commerce, 16960: 32- 42.

[44]. Precious, L.N. (2015). Effects of public debt on economic growth in Swaziland. International Journal of Business and Commerce, 5(1): 1-24.

[45]. Roberts, R.O. (1942). Ricardo's Theory of Public Debts. Economica, 9(35), 257–266. https://doi.org/10.2307/2549539.

[46]. Alagba S., & Idowu, E. (2019). Effect of public debt on economic growth in Nigeria: An empirical analysis 1981 - 2018. International Journal of Business & Economic Development. 07. 10.24052/IJBED/V07N02/ART-02.

[47]. Sasmal, J., & Sasmal, R. (2018). Public debt, economic growth and fiscal balance; Alternative measures of sustainability in Indian context. Global Review.

[48]. Todaro M. P., & Smith C. S (1994). An edition of Economic development. 9th ed.

[49]. Ujuju, L.E., & Oboro, G.O. (2017). The Nigeria Debt Structure and Its Effects on Economic Performance. International Journal of Business and Management Review, 5(10), 79-88.

[50]. Zaheer, H., Breyer, Y., & Dumay, J. (2019). Digital entrepreneurship: An interdisciplinary structured literature review and research agenda. Technological Forecasting and Social Change. 148. 10.1016/j.techfore.2019.119735.