# External Debt and Economic Growth in Nigeria From the Fourth Republic to 2016

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**Abstract:- The agitation surrounding the huge external debt incurred so far by President Mohammed Buhari led administration motivated this study. The study critically examined the contributions of external debt to economic growth in Nigeria emanating from the fourth republic to 2016, and also the direction of causality between these economic variables employing bivariate regression analysis and VAR modeling. The results show positive relationship between stocks of external debt and economic growth in Nigeria in the last 17 years, though statistically not significant at 5 percent level of significance. Also, there runs unidirectional causality between the two economic variables in the country starting from external debt to economic growth. In view of the above, it was recommended amongst others that the Nigerian government could see external debts as a viable means of financing deficit budgets and such funds should be allocated and channeled towards the productive sectors of the economy in order to achieve a sustainable economic growth.**

***Keywords**:- External Debt, Economic Growth, Fourth Republic, Nigeria Chapter One.*

## I. INTRODUCTION

External debt is regarded as any resource(s) or used in a country which is sourced outside the shores of that country, and which does not include the resources of any resident citizens, been corporate organization or individual personaliy. External debt includes all borrowed funds from oversea lenders which may include commercial banks, government or international financial institutions. (Ogbona and Appa, 2016).

Debt crisis is one of serious problems facing the third world economies in general, and Nigeria in particular. Meanwhile, there is nothing wrong for a country sourcing for funds outside its shores to implement its investment projects. What really matters is the economic impact of the borrowed funds in the country.

The history of Nigerian huge debt is traceable to the era of oil boom in the early 70s when there was a dire need for infrastructural development to facilitate the exploitation of crude oil in Nigeria.In 1971, Nigerian external debt was valued at $1 billion, consequently, by 1991, it has amounted to $33.4 billion, the figure has been on the increase, even when democracy came on board in 1999. From 1999 to 2017, Nigerian external debt portfolio has increased sporadically from #2.577 trillion to over #15 trillion (NBS, 2017 ).

Consequently, it is expected that an increase in quantum of external debt so far should metamorphose into substantial economic expansion in terms of production, infrastructural development and welfare packages on the citizens. However, evidence from the literature has proved otherwise in Nigeria, in which huge indebtedness of the country so far has been attributed according to Semenitari, 2005, Aluko and Arowolo, 2010 with the persistent menace poised by debt servicing and the unquestionable appetites of people at the corridors of powers to obtain external funds to execute white elephant projects in Nigeria. In view of the above, It is therefore paramount to examine the performance or otherwise of the borrowed funds on the growth of the Nigerian economy. The scope of the study is limited to the period from 1999–2016. This scope covers the period of the fourth republic in Nigeria which is the focus of the study. Similarly, it is assumed that 17 years are long enough for multiplier effect of external debt to transmit to all sectors of the economy. The aim of the paper is an attempt to critically investigate how external debt has contributed to the growth of the Nigerian economy over time. And as well examine the causal relationship between these economic variables.

## II. LITERATURE REVIEW

- *Theoretical Framework*

*A. The Theory of External Debt on Economic Growth*

The theoretical foundation of the study is based on Debt Overhang Theory which stipulates that if debt exceeds the country's repayment capacity with some probability in the future, expected debt service is likely to be an increasing function of the country s output level. Thus some of the returns from investing in the domestic economy are effectively taxed away by existing foreign creditors and investment by domestic and new foreign investor is discouraged. (Yucel, 2009 and Tamasehke,1994).

ISSN No:-2456-2165

### *B. Empirical Studies*

In literatures, empirical studies have examined the relationship between external debt and economic growth in both developed and developing economies. It is therefore paramount to take a panoramic review of the existing studies in this paper.

In attempt to provide clearer information about arguments surrounding the cause-effect relationship between external debt and economic growth, Chowdhury (1994) conducts granger causality tests for countries in Asian and Pacific over a period of 1970-1988. He finds out that both public and private external debts, have a relatively very small impact on GNP and both have opposite signs. He concludes that higher level of external debt can be as a result of an increase in GNP, but overall external debt has a positive relationship with economic growth.

Meanwhile. Elbadawi (1997) confirms a link between effect of debt overhang on economic growth and development employing cross sectional regression for developing nations cutting across SSA, Latin America, Asia works against growth: current debt inflows as a reciprocal of GDP, which has the capacity to derive and propel economic growth and development. He uses past debt accumulation to model effect of debt overhang and debt servicing ratio. The researcher finds that accumulation of debt hindered GDP growth and welfare while the reverse was the case for debt stock.

Consequently, Cohen's (1995) argues that there was no significant relationship between the level of debt and the decrease in investment in developing nations in the 1980s. He finds out debt servicing crowds out investment, and therefore maintains that economic growth has positive relationship with external debt at low levels but reverse is the case at higher levels. Apparently, Were (2001) analyzes the effects of debt overhang problem on growth of Kenyan economy, adopting time series data ranging from 1970 to 1995. The researcher finds that debt servicing does not have any adverse effect on economic growth; but, it confirms some crowding out effects on private investment.

Schclarek (2004) submits that in developing nations, there is an inverse linkage between higher growth rate and a relatively lower external debt levels and this negative relationship is however driven by public external debt rather than private external debt.

In the same vein, Iyoha (1999) concludes that the external debt to ratio is high in SSA countries and thereby creates debt overhang problems which consequently slow down investment and growth in the continent.

Similarly, while analyzing time to time behaviour of donor agencies as an outcome of various bilateral and multilateral arrangements for Nigeria spanning from 1962 to 2006, Adepeju, Salau and Obayelu (2007), conclude that accumulation of external debt hindered economic growth in Nigeria.

Meanwhile, Ali and Mshelia (2007) use Nigerian debt data to find out that external debt has both direct and inverse relationships with GDP.

Hameed, and Claudlary (2008) explore the interaction of external debt servicing, capital stock, labour force and economic growth for Pakistan economy between 1970-2003. It was discovered that an adverse effect of external debt servicing on labour and capital productivity impedes the growth of Pakistan economy.

While investigating the direction of causality between short terms external debt and GDP growth rate for 27 Latin American and Caribbean countries over a period of 1970 to 2003, Butts (2009) finds out that causality runs from short term external debt to GDP growth in thirteen countries. On the other hand, Osuji and Ozurumba (2013) analyze the impact of external debt financing on Nigerian economic growth ranging from 1969 to 2011. They estimated VEC model point out that London debt financing had positive impact on economic growth while Paris debt, Multila and Promissory note showed otherwise.

Finally, Ogbonna and Appah (2016) examine the nexus between external debt management and economic growth in Nigeria commencing from 1981 to 2013, adopting various diagnostics tests, such as unit root test to establish the stationary or otherwise of the employed data, granger causality test and multiple regression models. The finding reveals that external debt payment and economic growth have a significant relationship in Nigeria.

However, taking a critical look at the findings of the above studies, one could conclude that researches are still ongoing on impact of external debt on economic growth. Similarly, the literatures are still inconclusive about the linkage between external debt and economic growth. Hence, the relevance of this paper.

## III. METHODOLOGY

In this study data on external debt were sourced fromthe CBN statistically bulletin staple in 2016, in which various external debts from London Club, Paris Club,Multilateral, Promissory note and others were aggregated into total debt for the years under review. Similarly, data on GDP which symbolizes economic in Nigeria was extracted from the same source. The data covered 1998 to 2016. This study adopts econometrics techniques for analysis

### *A. Model Specification*

In an attempt to examine the relationship between external debt and economic growth in Nigeria, following Lucas 1988 and Romer; 1989, the endogenous growth theory is considered a very important guide as adopted by Olayiwola and Okodua, 2008. The model is specified as follows.

RGDPt = F(Ex-Debt, INFt ) ------------------------------------------------------------------------ (1)

Where GDP represents economic growth measured by real Gross Domestic Product (RGDP), Ex-Deb symbolizes External debt(London Club, Paris Club,Multilateral, Promissory note and others)and INF means inflation. Where subscript t illustrates the time period of scope of the study.

Therefore, the model can belinearized explicitly as follows.

LnRGDP = B0+B1LnEx-Deb+B2LnINF+Ui-----------------------------------------------------(2)

It is worth noting that the coefficient of each of the variables in the model 2 gives us the information about the impact of external debt on economic growth in Nigeria.

- *Causality Analysis between External Debt and Economic Growth*

The Granger causality approach measures the precedence and information provided by a variable (A) in explain the current value of another variable (B). B is said to be granger-caused by A if A helps in predicting the value of B. In other words, the lagged values of A are statistically significant. Therefore, in analyzing the Granger causality between external debt and economic growth, this work employed pairwise granger causality analysis in estimating the VAR model in equation (3&4) which stated thus; following Abu (2010) and Anoruo and Ahmad (2001)
The model can be specified thus:

RGDP1t= $\beta$10 + $\beta$11*Ex-DebIt*+ *u*1*t* ---------------------------------------------------------3

*Ex-DebI*2*t* = $\beta$20 + $\beta$21RGDP*t*+ *u*2*t* ---------------------------------------------------------4

## IV. EMPIRICAL ANALYSIS AND INTERPRETATION OF RESULTS

### *A. Introduction*

The aim of this chapter is to analyze the data collected for the purpose of this study. The time-series properties of the data series are examined. Under this section, a unit root test is embarked upon to ascertain whether the various data series are stationary in level or first difference. Testing for the time-series properties of variable is of particular importance in the light of the recent observation that most economic time series are non-stationary and could adequately be represented by unit root. This section also tests for cointegration among variables so as to observe the long run relationship, and also to be guided in the estimation of the VAR model specified for this study as well as testing for causality among variables.

### *B. Unit Root Test*

| Variables | ADF Test | | | PP Test | | |
|---|---|---|---|---|---|---|
| | Level | 1st Difference | Remarks | Level | 1st Difference | Remarks |
| LRGDP | -2.962746 | -6.4450* | I (1) | -2.3141 | -11.8522* | I (1) |
| LEx-Deb | -2.0804 | -7.5905* | I (1) | -2.0438 | -9.7350* | I (1) |

Table 1.

*Source; Author`s computation (2018), note: */ **/ **** represent stationary at 1, 5 and 10 percent level respectively.

Owing to the importance of the stationarity of data employed in determining the long run relationship and cause effect analysis of the variables in this paper. The data on real gross domestic products and external debt were subjected to tests for unit roots via the standard ADF-(Augmented Dickey-Fuller) and PP-(Phillips-Perron) tests. It was observed from the table that the variables are stationary after first differencing which connotes the presence of unit root at level.

Dependent Variable: GDP
Method: Least Squares
Date: 04/10/18 Time: 16:24
Sample: 1 17
Included observations: 17

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 15312.21 | 6822.771 | 2.244280 | 0.0314 |
| Ex-Deb | 5.838618 | 3.727949 | 1.566174 | 0.1266 |

| | | | |
|---|---|---|---|
| R-squared | 0.567290 | Mean dependent var | 22393.38 |
| Adjusted R-squared | 0.339857 | S.D. dependent var | 31287.38 |
| S.E. of regression | 30657.53 | Akaike info criterion | 23.55310 |
| Sum squared resid | 3.20E+10 | Schwarz criterion | 23.64107 |
| Log likelihood | -421.9557 | Hannan-Quinn criter. | 23.58380 |
| F-statistic | 2.452902 | Durbin-Watson stat | 0.037769 |
| Prob(F-statistic) | 0.126569 | | |

Table 2. Regression Result of Economic Growth and External Debt in Nigeria 1999-2016
*Source; Author`s computation (2018)*

From bivariate regression analysis table above, it could be deduced that the variable of external debt had positive relationship with economic growth; the coefficient of 5.8 revealed that one unit increase in external debt will increase growth by 0.58 percent, though statistically non-significant at 5 percent level of significance. Therefore, the contribution of external debt toeconomic growth in Nigeria from 1998 to 2016 is abysmally low.The reason for the positive but insignificance and low performance of external debt to economic growth in Nigeria might be as a result of the fact that during the period in consideration the Nigerian government did not disburse the loans to the productive sectors of the economy or larger percentage of these funds might have been diverted to the private accounts by public office holders and politicians at corridors of powers in Nigeria. This finding was in line with the proposition of Ali and Mshelia (2007) who asserted that external debt had both direct and inverse relationships with the Nigerian economic growth, despite the fact that different methodologies were employed.

However, the variables of the model which comprises of external debt and real gross domestic product jointly explains about 56.7% of the systematic variations in the dependent variable, GDP, leaving 43.3.% unexplained due to random chance. Although after adjusting for the loss in the degree of freedom, the explanatory power reduces to 33.9%, thus, about 33.9 percent systematic variations in the explained variable is being accounted for by the explanatory variables in the model.

Pairwise Granger Causality Tests
Date: 04/12/18 Time: 12:02
Sample: 1 17
Lags: 2

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|---|---|---|---|
| Ex-Deb does not Granger Cause GDP | 18 | 1.11568 | 0.3414 |
| GDP does not Granger Cause Ex-Deb | | 2.33650 | 0.1146 |

Table 3. Causality Test between Gross Domestic Product and External Debt in Nigeria
*Source: Author`s computation (2018)*

The Granger causality test was conducted to determine the direction of causality external debt and economic growth in Nigeria, the table reveals that causality runs from external to economic growth with F-statistic value of 1.11568 and p-value of 0.3414, thus the null hypothesis of no causality was rejected, while economic growth does not granger external debt, This implies the existence of unidirectional causality which runs from external debt to economic growth in Nigeria.. This result contradicted the studies carried out by Adepeju, Salau and Obayelu (2007) who asserted that external debt accumulation hindered Nigerian economic growth.

## V. CONCLUSION AND RECOMMENDATION

This paper has examined the relationship external debt and economic growth of Nigeria from fourth republic till date. This study found out that external debt and economic growth have a positive linkage in Nigeria since fourth republic in 1999 till date though not significant. On the basis of the result, this study concludes that external debt if well managed has the capacity and capability to expand the frontiers of the nation economy and consequently promote welfare of the citizens in Nigeria. On the basis of this conclusion, the paper recommends amongst others that Nigerian government could see external debts as a viable means of financing deficit budgets and such funds should be allocated and channeled towards the productive sectors of the economy in order to achieve a sustainable economic growth.

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