External Debt and Economic Growth in Nigeria

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Abstract  
This study empirically investigated the effect of external debt on the economic growth of Nigeria. It statistically used external debt stock, external debt service cost and government capital expenditure as indices for independent variable and gross domestic product as the dependent variable. Secondary data were collected for the period 1981 to 2017. The study employed the Augmented Dickey fuller (ADF) to test for the stationarity of the data, Granger Causality was used to obtain the cause effect relationship among the variables and Error Correction Mechanism (ECM) for the short and long run relationships. The results indicate that external debt stock and government capital expenditure have positive and significant effect on economic growth in Nigeria, whereas external debt service cost is not significant in explaining economic growth. The study recommends amongst other things that adequate utilization of foreign loan on capital expenditure will continue to stimulate the Nigerian economy.

Keywords: External debt, Economic growth, External debt service cost.

1.0 Introduction

External debt according to World Bank (2004) is defined as debt owed by the government to non-residents repayable in terms of foreign currency, food or service. It is a source of financing capital formation of an economy. Ayadi and Ayadi (2008) opined that the amount of capital available in most developing countries treasury is grossly inadequate to meet their economic growth needs mainly due to their low productivity, low savings and high consumption pattern. The reported financial inadequacies lead countries to source for supplementary financing. Sulaiman and Azeez (2012) noted that external debt is one major source of aid to developing nations. But the rate at which they borrow depends on the links among foreign and domestic savings, investment and economic growth so that the borrowing countries can increase their capacity output with the aid of foreign savings (Ijirshar, Fefa & Godoo, 2016). It is required that the borrowing nation should be able to invest the borrowed fund wisely especially in financing development projects like railway construction, electricity generation plants, road
construction and any other major capital project of the economy. However, Ijirshar et al (2016) pointed out that external debt can only be productive if well managed by making the rate of return higher than the cost of servicing the debt.

Notwithstanding that external debt can be used to stimulate the economy, Sanusi (2003) asserted that excessive external debt constitutes limitation to sustainable economic growth and poverty reduction. Excessive external debt stock increases external debt service cost and generates debt overhang problems to the economy. Debt overhang is a phenomenon where substantial resources are used for debt servicing such that it stifles the economic growth as it becomes burden on domestic production (Udeh, Ugwu & Onwuka, 2016). Nakatami and Herera (2007) maintain that debt accumulates because of principle and piled up servicing requirements thereby becomes a self-perpetuating mechanism of poverty aggravation, work over-exploitation and constraint on development in developing countries.

Nigeria external debts dated back to pre-independence era when it acquired its first loan of twenty eight (28) million US dollars from World Bank, to finance the construction of railway. Ayadi and Ayadi (2016) reported that by 1960, the Nigeria’s external debt profile had risen to 150 million US dollar. The quest for developmental plans and the need to finance the flamboyant lifestyle of government leaders in Nigeria surged up the country’s external debt to 1 billion US dollar by 1971 (Olasode & Babatunde, 2016). The increase in external debt alarmingly continued which was however due to fall in oil price in 1978 and sharp decline in the balance of payment. Debt Management Office (2000) noted that Nigeria obtained her first jumbo loan of 1 billion US dollar from International Capital Market (ICM) in 1978 summing the external debt to 2.2 billion US dollars. The states in the country joined in contracting loans from foreign creditors which gave rise to Nigeria external loan of about N17.3 billion in 1986, a situation that compelled the nation to adopt the Structural Adjustment Programme (SAP) in 1986, which was packaged by International Monetary Fund (IMF) as a means to revamping the nation’s economy (Ayadi & Ayadi, 2008). By 2005, Nigeria indebtedness to foreign creditors had gone to a very escalating amount of 30 billion US dollar, which servicing cost was generally considered as unsustainable. This scenario attracted debt relief from Paris/London Club in 2006, thereby making Nigeria debt burden and profile lighter. In view of the above, Nigeria started to re accumulate and record upward move in external debt from 2008 in a bid to foster the required economic growth and a support to fiscal deficits. National Bureau Statistics (2017) reports that Nigeria’s debt to foreign creditors in 2016 stood at 15.05 billion US dollar and N14.06 trillion to domestic creditors. The usage of heavy inflow of cash via external debt to double up economic growth and development of Nigeria is rightly in accordance with Keynesian Theory of capital accumulation as a catalyst for economic growth. Contrarily, Campbell (2009) noted that accumulating debt is accumulating risk by increasing claims on future unrealized income. It becomes paramount to ascertain how far the heavy external debt of Nigerian government has actually helped to foster economic growth as propelled by Keynesian theory, or has the debt accumulation exposed the country to great danger as expressed by Campbell (2009). Therefore this study is set to find out the extent of impact of external debt as well as service cost on the economy of Nigeria.

**Objectives of the study**
The major objective of this study is to investigate the effect of external debt on the economic growth of Nigeria. The specific objectives are:

1. To examine the effect of external debt stock on the Gross Domestic Product of Nigeria,
2. To investigate the effect of external debt service cost on the Gross Domestic Product of Nigeria,
3. To examine the effect of government capital expenditure on the Gross Domestic Product of Nigeria.

Hypotheses
The hypotheses of the study are presented in null form as follows;
1. Ho – External debt stock has no significant effect on the Gross Domestic Product in Nigeria
2. Ho – External debt service cost has no significant effect on the Gross Domestic Product in Nigeria
3. Ho – Government capital expenditures has no significant effect on Gross Domestic Product in Nigeria

The remaining part of the paper is structured, such that the next section deals on review of related literature, section three explains the methodology employed. Data analysis and discussion is presented in section four, whereas summary of findings and recommendations are discussed in section five.

2.0 Literature Review

Theoretical framework
Overhang Debt Theory: Myers (1977) presents debt overhang as excessive debt that inhibits investment, arising from the fact that the benefits derived by the firm using high risky financing accrue largely to existing debt holders instead of shareholders. In other words, high level of public debt is crowding out private investment. Again debt overhang is presented when a country’s debt accumulation is greater than its strength and capacity of repayment in the future. According to Krugman (1988), the debt overhang theory shows that if there is some likelihood that in the future debt will be larger than the country’s repayment ability; expected debt-service costs will discourage further domestic and foreign investment because the expected rate of return from the productive investment projects will be very low to support the economy as the significant portion of any subsequent economic progress will accrue to the creditor country. Monogbe, (2016) maintains that the inability of the present generation to service the borrowed fund may be transfer to the future generation as a debt burden.

Empirical Review
Ajayi and Oke (2012) investigated the effect of external debt on economic growth and development of Nigeria. They used national income as an endogenous variable and debt service payment, external reserve and interest rate as exogenous variables they found that external debt burden had a positive effect on the nation’s income and per capital income. Also external reserve and interest rate have positive relationship with national income. They conclude that high level of external debt led to devaluation of the nation’s currency, increase in retirement of workers, continuous industrial strike and poor educational system.

Sulaiman and Azeez (2012) examined the effect of external debt on the economic growth of Nigeria. Gathering annual time series data from 1970-2010, they proxy gross domestic product for economic growth and internal debt, ratio of external debt to exports and exchange as independent variables. Employing econometric techniques of Ordinary Least Square (OLS), Augmented Dickey Fuller (ADF) unit root test, Johansen Co-integration test and Error Correction Model. The result of ADF shows that all the variables were stationary at first difference with the exception of inflation rate. Johansen co-integration depicts that all the exogenous variables except external debt has a positive long run relationship with GDP. The result of Error correction model shows that external debt has positive but insignificance relationship with GDP, external debt to export and inflation rate have negative and significant effect on GDP while exchange rate has a significant positive relationship with GDP.
Oke and Sulaiman (2012) investigated the relationships among external debt, economic growth and investment in Nigeria between the periods of 1980-2008. They employed debt-cum-growth model regression in their analysis and found that reserve to external debt, private investments and debt service ratio have negative relationships with GDP, whereas exchange rate and interest rate have positive relationship with GDP. They recommend that appropriate measure be put in place to aim at optimal use of borrowed fund so that servicing such funds will not invoke economic crises.

Similarly, Mbah, Umunna and Agu (2016) looked at the impact external debt has on economic growth in Nigeria. Time series data were used which spanned from 1970 to 2013. The study adopted ARDL bound testing approach, Johansen co-integration and error correction model of econometric were also employed in analyzing the data. The result of Granger Causality indicates a unidirectional causality between debt and economic growth. In the same vein, it is depicted that a long run relationships existed among the variables. At the same time external debt is found to have significant negative impact on GDP. They conclude that Nigeria has not benefited from the dividend accrued to external borrowing which is ought to bridge the savings-investment gap.

Pertinently, Udeh, Ugwu and Onwuka (2016) x-rayed the relationship between external debt and economic growth from the experience garnered by Nigeria. Using GDP as endogenous variable to economic growth and external debt stock, external debt service payment and exchange rate as exogenous variable, they employed ex-post facto research design, a time series study that covered 1980 to 2013. Data were analysed using Ordinary Least Square technique, augmented Dickey Fuller (ADF) unit root test, co integration and error corrective model. The results show that external debt has positive significant relationship with gross domestic product growth at short run, but a negative relationship with economic growth at long run. They recommend that mechanisms be set in motion to ensure that loans are utilized for the purpose of acquisition.

In a similar work, Olasode and Babatunde (2016) modeled some economic theories that explain the causal relationship between external debt and economic growth in Nigerian economy. They empirically used autoregressive Distributed Lag model to analyze data from 1983-2012. They applied augmented Dickey Fuller and Phillips-Perron unit root test to control spurious data. Johansen Co-integration method was employed to test the relationship among variables. The result from the ordinary least square method show that there is dual behavior as lag one of external debt has positive effect while external debt of the present year has a negative effect on the economic performance. They recommend that loans obtained should be channeled towards productive uses.

Ijirshar, Fefa and Godoo (2016) investigated the relationship between external debt and economic growth in Nigeria for the period of 1981-2014. They used both descriptive and econometric tools in empirically analyzing the time series data generated. The findings show a significant relationship between external debt and economic growth in Nigeria in a long run, while external debt servicing had both long run and short run negative effect on Nigeria economic growth. They recommend that external loan stock borrowed be effectively managed since it increases growth rate.

Ayadi and Ayadi (2008) made a comparative on the impact of external debt on the economic growth between Nigeria and South Africa. Annual time series data was collected for the period 1980 to 2007. Ordinary Least Square and Generalised Least Square estimation technique were
employed, external debt and external debt servicing is found to be negatively impacted on Nigerian and South African economy.

Monogbe (2016) empirically examined data pooled from 1981 to 2014 as an instrument for investigating intergenerational effect of external debt on economic performance of Nigeria. He found that total money supply, multilateral creditors and bilateral creditors which are proxy for external debt have positive and significant relationship with economic growth in Nigeria.

Ezeabasili, Isu and Mojekwu (2011) similarly examined the relationship between Nigeria external debt and economic growth. They found that external debt has short run negative relationship with economic growth and conclude that debt accumulation for projects must be matched with the timing of repayments “and be concerned about the absorptive capacity”. In Pakistan, Ali and Mustafa (2012) examined the long run and short run impact of external debt on economic growth for the period 1970-2010. The study reveals that external debt exerts a negative impact on Pakistan economic growth.

Shah and Pervin (2012) conducted a study on the effect of external public debt on economic growth, from the perspective of Bangladesh economy for the period 1974-2010. They employed econometric tools of Augmented Dickey Fuller and Philips-Perron unit root test, Co integration test and Error Correction Mechanism and found that external public debt service has long run significant negative effect on GDP, while external public debt stock has long run positive effect on GDP growth.

Zaman and Arslan (2014) empirically sought to determine the role of external debt on the economic growth of Pakistan. Employing distributive statistics and Ordinary Least Square regression estimation technique on a time series data of 39 years (1972-2010), they revealed that gross capital formation and external debt stock have significant positive effect on Pakistan GDP while gross domestic savings does not have significant impact on GDP of Pakistan.

Safdari and Mehrizi (2011) used vector autoregressive model on a panel data of 1974 to 2007, in investigating the effect of external debt on the economic growth in Iran. The results indicate that external debts and imports have negative effect on Iranian economic growth, while private and public investments have positive effect on the economic growth of the country.

Tarek and Tarek (2013) argued that external debt is not an obstacle to development on North African countries especially when it’s contained within reasonable limit and disclosed that it can help countries in North Africa strengthen their growth economically.

Aylin and Serap (2015) provided new evidence on old debate of external debt and economic growth. They employed Common Corrected Effect (CCE) Estimator on the panel data that span from 1985 to 2013, and found that a negative linear impact of external indebtedness on economic growth.

Uzun, Karakoy, Kabadayi and Emsen (2012) conducted another study on the impact of external debt on economic growth in transition economies. GDP per capital represents the explained variable and external debt to GNI and Openness for explanatory variable, with the use of autoregressive distributed lag model, they found that external debt has significant positive effect on growth rate in long run and openness has statistically significant positive effect on economic growth of Transitory countries.

Ugwuegbe, Okafor and Azino (2016) used annual time series data to investigate the effect of external borrowing and foreign aid on economic growth in Nigeria from 1980 to 2013. They used GDP as a parameter for economic growth and external debt, foreign aid, exchange rate regime and foreign reserve as the exogenous variables. Econometric techniques of Ordinary
Least Square (OLS) multiple regression, Augmented Dickey Fuller (ADF), Johansen Co-integration, Error Correction Method (ECM) were applied. The results show that external debt has a positive and significant effect on economic growth, foreign aid has positive and insignificant effect on economic growth in Nigeria.

Ugwu and Nzewi (2016) evaluated the effect of external debt on economic growth parameters in Nigeria. They employed ex post facto research design and the result show that positive relationship exists among external debt and economic growth parameter (GDP, exchange rate, capital expenditure). They conclude that small external debt accumulation stimulates the economy while huge debt's negative impact on the economy.

Adeniran, Azeez and Aremu (2016) empirically examined the impact of external debt on economic growth in Nigeria with data from 1980 to 2014, while applying Vector Error Correction model found that external debt service payment do negatively impact significantly on Nigeria economic growth.

Summarily, the reviewed literature disclosed that most of the authors had used many parameters to proxy external debt but few had realized that a great measure of external debt due flow into government capital expenditure and as such, capital expenditure should be one of the frontline measure of external debt and its contribution to economic growth must not be undermined. This study therefore is set to know how government capital expenditure has actually contributed in this relationship.

3.0 Methodology

The time series data for the period of thirty seven years (37) from 1981 to 2017 was generated from Central Bank of Nigeria Statistical Bulletin2016, Debt Management Office, World Bank and National Bureau of Statistics (2017). The study used the descriptive statistics to explore the nature of the data collected for the study. Granger causality was used to test the causal effect relationship that existed between the data, the unit root test was used to test for the stationarity of the data while error correction model (ECM) was used to capture the short and long run behaviour of the variables.

Model specification
The functional model of the study is stated as;

\[ \text{GDP} = f(\text{EXTDEBT}, \text{DEBTSER}, \text{CAPEX}) \]

Transformed to econometric terms as;

\[ \text{GDP}_t = \beta_0 + \beta_1 \text{EXTDEBT}_t + \beta_2 \text{DEBTSER}_t + \beta_3 \text{CAPEX}_t + \varepsilon_t \]

Where;
- GDP = Gross Domestic Product
- EXTDEBT = External Debt Stock
- DEBTSER = Debt Service Cost
- CAPEX = Government Capital Expenditure

4. Data Analysis and Interpretation of Result

The results are presented below.

Table 4.1 provides the summary of the descriptive statistics of the sampled companies.
Table 4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>GDP</th>
<th>EXTDEBT</th>
<th>DEBTSER</th>
<th>CAPEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>25425.34</td>
<td>1365.506</td>
<td>93.67730</td>
<td>390.6249</td>
</tr>
<tr>
<td>Maximum</td>
<td>135459.7</td>
<td>6862.360</td>
<td>393.9600</td>
<td>1200.000</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>36032.02</td>
<td>1655.663</td>
<td>117.0149</td>
<td>391.7613</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.457466</td>
<td>1.574639</td>
<td>1.614483</td>
<td>0.640510</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>4.097295</td>
<td>4.876428</td>
<td>4.384450</td>
<td>2.042843</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>14.95553</td>
<td>20.71835</td>
<td>19.02868</td>
<td>3.942296</td>
</tr>
<tr>
<td>Probability</td>
<td>0.000566</td>
<td>0.000032</td>
<td>0.000074</td>
<td>0.139297</td>
</tr>
</tbody>
</table>


Table 4.1 provides some insight into the nature of the time series data used for the study. From the table above, we observed that within the period under study, external debt value (mean) is about four times higher than the capital expenditure, this relationship shows that only about the quarter of the external debt that are used for capital project, the balance were used to meet recurrent expenditure need. The Jarque-Bera (JB) which test for normality or existence of outlier shows that all the variables are normally distributed at 1% level of significance accept capital expenditure.

Unit Root Test
The study used the Augmented Dickey Fuller (ADF) to test for the stationarity of the data. The summary of the result is presented below.

Table 4.2: Stationarity Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Order of integration</th>
<th>ADF @ level</th>
<th>1% (CV)</th>
<th>5% (CV)</th>
<th>10% (CV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1 (1)</td>
<td>-6.89770</td>
<td>-4.81720</td>
<td>-3.73042</td>
<td>-3.37799</td>
</tr>
<tr>
<td>EXTDEBT</td>
<td>1 (0)</td>
<td>-5.67859</td>
<td>-4.65255</td>
<td>-3.67081</td>
<td>-3.86909</td>
</tr>
<tr>
<td>DEBTSER</td>
<td>1 (0)</td>
<td>-6.82186</td>
<td>-4.68355</td>
<td>-3.56081</td>
<td>-3.86909</td>
</tr>
<tr>
<td>CAPEX</td>
<td>1 (1)</td>
<td>-5.66387</td>
<td>-4.52620</td>
<td>-3.53048</td>
<td>-3.39799</td>
</tr>
</tbody>
</table>

The stationarity result shows that external debt and debt servicing were stationary at first order. While capital expenditure and economic growth were stationary at after first differential was taken. These results imply that the regression results that would be obtained from the models specified in (Equation 2) would have been spurious if there is no long-run relationship among the variables in the model. As such, cointegration properties (long run and short run relationship) were investigated.

Co-integration tests
Co-integration tests: The hypothesis of co-integration is accepted if the number of co-integrating relationships is greater than or equal to one. The Johansen co-integration test result between GDP, EXTDEBT, CAPEX, and DEBTSER is supported at lag 2 in the Final prediction error (FPE), Akaike information criterion (AIC) and HQ: Hannan-Quinn information criterion (HQ).
From the Johansen co-integration test results presented in Table 4 below, the Trace statistic indicates two co-integrating equations judging from the P-values at None* and 1* which are both significant at 1% and 5% level. The Max-Eigen statistic also indicates two co-integrating equations judging from the P-values at none* and 1* which both showed a significant level of 1% and 5%. The result reveals that the co-integrating relationships is greater than one, and the null hypothesis of no co-integration was rejected in favour of the alternative hypothesis that the variables used in the model are co-integrated, this reveals that a long run relationship exist between, external debt, capital expenditure, debt servicing and economic growth in Nigeria (GDP).

**Error correction mechanism**

The error correction model (ECM) was used to capture the long-run behaviour of the variables.

### 4.4: Error correction mechanism table

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>T-statistics</th>
<th>Probability -value</th>
</tr>
</thead>
<tbody>
<tr>
<td>D (CAPEX(-1))</td>
<td>6.5626</td>
<td>3.5781</td>
<td>0.0046**</td>
</tr>
<tr>
<td>D (EXTDEBT(-1))</td>
<td>3.3464</td>
<td>2.6782</td>
<td>0.0373*</td>
</tr>
<tr>
<td>D (DEBTSER(-1))</td>
<td>1.3978</td>
<td>0.7886</td>
<td>0.4531</td>
</tr>
<tr>
<td>ECM (-1)</td>
<td>0.3848</td>
<td>3.2436</td>
<td>0.0016**</td>
</tr>
<tr>
<td>R-sq(adj)</td>
<td>0.58922</td>
<td>45.9308</td>
<td>0.00000**</td>
</tr>
<tr>
<td>F-statistics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-statistics Prob. Value</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** researcher (2017) summary from e-view software 9.

Note: ** 1%; * 5% sign level.

The result reveals that CAPEX and EXTDEBT with one year lag have positive and significant effect on the economic growth of Nigeria economy. The finding corroborates with that of Shah and Pervin (2012), Zaman and Arslan (2014), and Ugwuegbe, Okafor and Azino (2016) that external debt stock has positive and significant effect on GDP. While DEBTSER with one year lag has statistical insignificant effect on the economic growth in Nigeria. The result disagrees with that of Adeniran, Azeez and Aremu (2016) which maintains that external debt service payment do negatively impact significantly on Nigeria economic growth. The long-run error
correction mechanisms (ECM) proved to be statistically significant in correcting the disequilibrium at lag one in the model. The result indicates that about 38% correction is made to the disequilibrium result from the co-integrating vector, at every one year to return to its equilibrium root. This also means that economic growth adjusts rapidly to changes in external debt stock. The R-squared adjusted of 0.5892 shows that the external debt variables can jointly explain about 58.92% of changes in economic growth of Nigeria. The F-statistic probability value of 0.0000 shows that the regression result is statistically significant while the Durbin Watson of 1.833 shows the absent of autocorrelation in our model.

Pairwise Granger Causality Tests
Date: 05/25/18   Time: 19:41
Sample: 1981 2017
Lags: 1

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTDEBT does not Granger Cause GDP</td>
<td>37</td>
<td>3.21825</td>
<td>0.0820</td>
</tr>
<tr>
<td>GDP does not Granger Cause EXTDEBT</td>
<td></td>
<td>6.20567</td>
<td>0.0179</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEBTSER does not Granger Cause GDP</td>
<td>37</td>
<td>0.52121</td>
<td>0.4754</td>
</tr>
<tr>
<td>GDP does not Granger Cause DEBTSER</td>
<td></td>
<td>0.00357</td>
<td>0.9527</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPEX does not Granger Cause GDP</td>
<td>37</td>
<td>3.48993</td>
<td>0.0889</td>
</tr>
<tr>
<td>GDP does not Granger Cause CAPEX</td>
<td>4.06521</td>
<td>0.0520</td>
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<table>
<thead>
<tr>
<th></th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEBTSER does not Granger Cause EXTDEBT</td>
<td>37</td>
<td>10.9411</td>
<td>0.0023</td>
</tr>
<tr>
<td>EXTDEBT does not Granger Cause DEBTSER</td>
<td>16.4634</td>
<td>0.0003</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPEX does not Granger Cause EXTDEBT</td>
<td>37</td>
<td>0.82427</td>
<td>0.3705</td>
</tr>
<tr>
<td>EXTDEBT does not Granger Cause CAPEX</td>
<td>0.89766</td>
<td>0.3503</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPEX does not Granger Cause DEBTSER</td>
<td>37</td>
<td>0.07907</td>
<td>0.7803</td>
</tr>
<tr>
<td>DEBTSER does not Granger Cause CAPEX</td>
<td>4.24458</td>
<td>0.0473</td>
<td></td>
</tr>
</tbody>
</table>
From the result, we observed that external debt granger cause economic growth and economic growth granger cause external debt. This shows that economic growth and external debt has linear relationship. This symbiotic relationship underscore the reason why most developing nations are encourage to borrowing and investing in capital stock in other to fast track infrastructural development. Secondly, we observed from the result that debt servicing does not granger cause economic growth and economic growth does not granger cause debt servicing. Since debt servicing is an outflow which has no capacity of generating return, one can expect that it will have little or no impact on the level of economic growth. Thirdly, we observed from the result that capital expenditure granger cause economic growth and economic growth granger cause capital expenditure. The result indicates that if more funds are committed to infrastructural (capital expenditure) development, it will increase the level of economic growth in Nigeria.

In general, we found that external debt has positive impact on the economic growth of Nigeria.

5. **Conclusion and recommendations**

This study investigated the effect of external debt on the economic growth in Nigeria for the period of thirty seven years from 1981 to 2017. Data were extracted from the Central Bank of Nigeria statistical bulletin and data collected were analysed using the ordinary least square (OLS) technique. Empirical evidence shows that External Debt Stock exerts positive and significant effect on the GDP, which explains why developing countries anchor on borrowing from foreign countries for their development purposes. External Debt Service Payment on the other hand has a positive and insignificant effect on the economic growth in Nigeria. Government Capital Expenditure has positive and significant effect on Nigerian economic growth. This is to say that government’s ability to invest the borrowed fund on capital expenditure has the capacity to speed up the nation’s economic growth.

- Based on the findings, the study recommends continued government borrowing and timely settlement of debt service payments.
- The study also recommends the utilization of foreign loan on the capital expenditure as a way of stimulating the economy.

**References**


