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## **External Debt and Economic Growth of Nigeria: An Empirical Investigation**

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### **Authors' contributions**

*This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

The study investigates the impact of external debt on economic growth in Nigeria for the period 1999-2015. The data for this study was obtained mainly from secondary sources mainly from Central Bank of Nigeria (CBN) Statistical Bulletins and Debt Management Office. Time series data on Gross Domestic Product (GDP) as a proxy for Economic Growth, External Debt Stock (EXDS), External Debt Service Payment (EDSP), and Exchange Rate (EXGR) were used for the analysis. The techniques of Estimation employed in the study include Augmented Dickey Fuller (ADF) test, Johansen Co-integration, Vector Error Correction Mechanism and Granger Causality Test. Results show that external debt has an inverse effect on economic growth in Nigeria. Subsequently, the study recommends that government should empower Debt Management Office to set the mechanism in place, ensure that loans are utilised for purposes they are meant for and prosecute corrupt public officers who siphoned the money.

*Keywords: External debt; external debt stock; external debt service payment; economic growth; Nigeria.*

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## 1. INTRODUCTION

Nigeria is blessed with human and natural resources having the largest economy in Africa. It is ranked as the 21<sup>st</sup> largest economy in the world regarding nominal Gross Domestic Product (GDP) and 20<sup>th</sup> most significant in terms of Purchasing Power Parity (PPP). Nigeria is one of the sixth largest oil producers on the continent with oil reserve estimated to be 35 billion barrels ( $5.6 \times 10^9 \text{ m}^3$ ) and natural gas reserves with over 100 trillion cubic feet ( $2,800 \text{ km}^3$ ). Furthermore, Nigeria is also ranked sixth worldwide and first in Africa in farm output such as cocoa, groundnuts, natural rubber, and palm oil. Despite these indices of greatness, Nigeria finds it difficult to find its fit among the commit of nations. The country is characterised by poverty, insecurity, high unemployment and ritual killing. According to [1], poverty among Nigerian people has been noted to be devastating to the extent that Nigeria is ranked 12th among the poorest nations in the world. Authors affirm that most Nigerians live on less than 1 Dollar per day. The Nigeria economic predicament has been attributed to over-dependence on oil sector, and since oil price has crashed in the world market, the consequence has made the country not to meet its statutory obligations.

External borrowing has become a strong economic tool to developing countries to supplement the domestic savings and allow such countries to carry out productive activities. According to [2], borrowing by countries occurs as a result of their inability to generate enough domestic savings to carry out productive activities. [3] posits that foreign borrowing is desirable and necessary to accelerate economic growth, provided they are channelled to increase the productive capacity of the economy and promote economic growth and development. [4] affirms that external borrowing is preferable to domestic debt because the interest rates charged by international financial institutions like International Monetary Fund (IMF) is about half to the one charged in the domestic market. Africa countries Nigeria inclusive had faced domestic financial constraint. This constraint has made external debt an essential complement to domestic resources for promoting sustainable economic growth among these developing countries.

The quest for economic growth and sustainable development compelled Nigeria government to source for external debt. For example, external

loan of US\$28 million was first sourced from World Bank in 1958 to finance railway construction. By December 2016, external debt stood at \$11.41billion. Despite the huge amount of debts which the country has continued to incur over the years, with the aim of achieving economic growth and sustainable development; high level of poverty, insecurity, high unemployment, and low standard of living is still prevalent in the country [5,6]. Studies reveal that most of the money was not used for the purposes for which they were borrowed [7]. [8] also confirms that government fails to utilize these loans to foster economic growth and development optimally. The consequence of this act has made the debt service burden to continue hamper Nigeria's rapid economic development and worsened the social problems.

The pertinent questions are; is there any significant relationship between external debt and Nigerian economic growth? To what extent does external debt affects economic growth? and is there causality between external debt and economic growth?

### 1.1 Research Objectives

The primary objective of the study is to examine the impact of external debt on economic growth, while the specific objectives are to;

- i. Determine the relationship between external debt and economic growth.
- ii. Investigate the effect of external debt on economic growth.
- iii. Examine causality between external debt and economic growth.

### 1.2 Research Hypotheses

The following null hypotheses are set for this study

- H<sub>01</sub>:** There is no significant relationship between external debt and economic growth in Nigeria.
- H<sub>02</sub>:** External debt has no significant effect on economic growth.
- H<sub>03</sub>:** There is no causality between external debt and economic growth.

## 2. THEORETICAL REVIEW

There are many theories on economic development, the theories varied from basic to fundamentals, they make different behavioural

assumptions, use different concepts, categories, explain the development process differently, and suggest different policies [9]. The Economic Base Theory is one of the economic development theories, which viewed economic development as equivalent to the rate of local economic growth measured regarding changes in the local levels of output, income, or employment. The essential dynamic of the theory is the response of the primary sector to external demand for local exports, which, in turn, stimulates local growth. The theory's major strengths are its popularity as a basis for understanding economic development in North America; and its simplicity as a theory or tool for prediction [10]. Its major weakness is its inadequacy as a theory for understanding economic development, especially in the long term. Economic base theory strongly supports attracting industry through recruitment and place marketing.

Another theory under economic development is known as Staple Theory. This theory identifies industrial sectors as its basic categories. It defines economic development as sustained growth over the long term [11]. The theory's major strengths are its historical relevance to North American economic development and its emphasis on understanding the region's economic history. Its major weakness is that it describes, more than explains, the development process [12]. Sector Theory was developed as another theory under economic development. The theory uses three aggregate sectors as basic categories namely: the primary, secondary, and tertiary categories [13]. The level of development depends on sectoral diversity, emphasising a prominent tertiary sector, and labour productivity. Although Sector Theory is attractive because it can be applied and tested empirically, the primary, secondary, and tertiary categories are too crude to be useful in practice [14]. The overriding application is the need to attend to industries producing income-elastic commodities in order to achieve sustained growth.

Under the Classical Liberal theory, economic development is understood as economic growth and capital formation. The key to economic growth under this theory was capital formation. This led to an emphasis on large-scale infrastructure projects and on foreign aid loans [15]. Social Theories of economic development emphasized the importance of human capital in development. The key to economic growth

includes education, health, and fertility. They shifted concerns from the overall rate of economic growth to considerations of poverty, inequality, urbanisation and other social ills [16].

Debt is a contract, and the holder is obliged to fulfil the stated obligations along with accruing interest. Because of this obligation, the risk of compounded and penal charges arising from debt-service defaults, and the income effect of debt service on economic growth, policymakers have been enjoined to thoroughly evaluate each tranche of external borrowing to mitigate the associated risks. It is widely recognised in the international community that excessive foreign indebtedness in most developing countries is a major impediment to their economic growth and stability [17,18]. Developing countries like Nigeria have often contracted a large amount of external debts that has led to the mounting of trade debt arrears at highly concessional interest rates. [19] opine that accumulated debt service payments create a lot of problems for countries especially the developing nation's reason being that a debt is actually serviced for more than the amount it was acquired and this slows down the growth process in such nations. The inability of the Nigerian economy to meet its debt service payments obligations has resulted in debt overhang or debt service burden that has militated against her growth and development [17].

### 3. PROFILE OF EXTERNAL DEBT IN NIGERIA

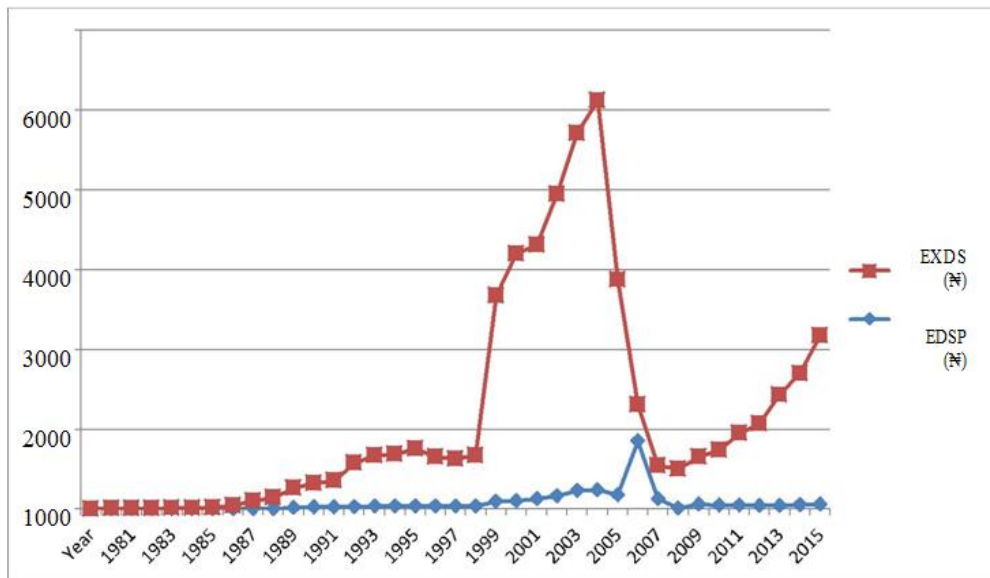
According to [20], the phenomenon of external debts by Nigeria was dated back to 1958, when a loan of US\$ 28.0 million (~~₦~~19.9 million) was contracted from the World Bank for railway construction. In 1960, Nigeria's public debt rose to US \$69.7 million (~~₦~~49.5 million), by 1970 the external debt was US\$246.0 million (~~₦~~174.7 million), representing 252 percent increase, and then to US\$346.0 million (~~₦~~249.1 million) in 1977 due to the fall in oil prices in the late 1970s which has incapacitated government financially to meet its obligations. [21] also affirms that the outrageous increase in Nigerian's external debt was as result of a proportional shortage of foreign exchange to meet its developmental needs. Between 1983 and 1988 Nigeria's external debt rose to US\$9.8 billion (~~₦~~44.3 billion) due to Nigeria's inability to settle its import bills. In 1990, according to [22], Nigeria's external debt rose again to US\$33.1 billion (~~₦~~266.1 billion). In 1991 it was reduced to US\$27.5 billion

(₦221.1 billion) but rose steadily to US\$32.6 billion (₦713.9 billion) at the end of 1995. As at 1999, according to [22], Nigeria's external debt stock was US\$28.0 billion (₦2,585.5 billion), 73.2 per cent of this was owed to the Paris Club while the rest was owed to the London Club, the multilateral creditors, promissory note holders and others during the period 2003-2007.

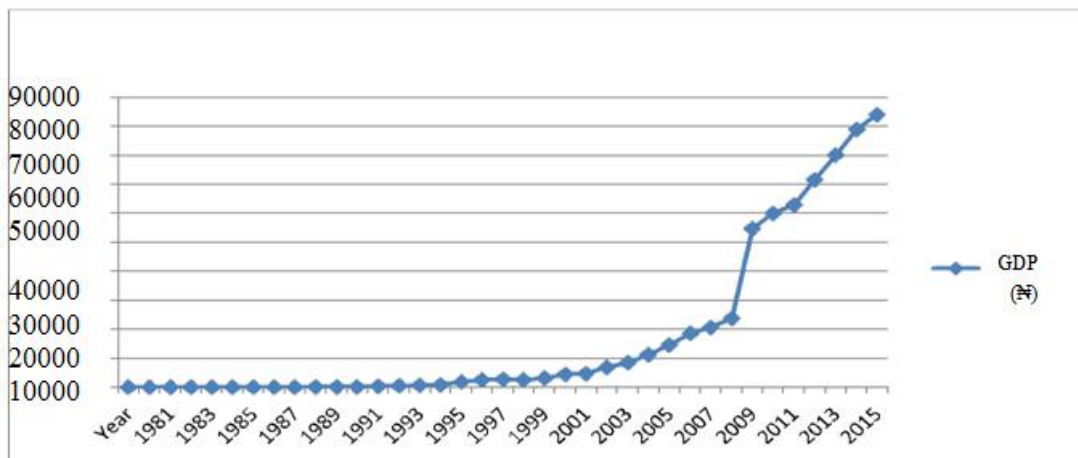
Federal government pursued debt cancellation which eventually led to drastic reduction of

external debt to US\$3.4 billion (₦427.8 billion) in 2007. Since then, the nation's debt has steadily increase from US\$3.4 billion (₦427.8 billion) in 2007 to US\$3.7 billion (₦438.6 billion) in 2008, US\$3.9 billion (₦580.7 billion) in 2009, US\$4.5 billion (₦676.4 billion) in 2010, US\$5.7 billion (₦877.0 billion) in 2011, US\$6.5 billion (₦1,023.8 billion) in 2012, US\$9.0 billion (₦1,415.8 billion) in 2013, US\$9.5 billion (₦1,506.2 billion) in 2014, US\$10.72 billion (₦2,062.9) in 2015 and US\$11.41 (₦3,634.8 billion) in 2016.

(₦ Billion)



**Fig. 1. External debt stock and external debt service payment**  
EXDS = External Debt Stock. (₦ Billion), EDSP = External Debt Service Payment (₦ Billion)



**Fig. 2. Gross domestic product**

However, Nigeria's external debt service payment stood at US \$ 2.6 million (₦1.8 million) in 1960 and moved to US \$ 17.6 million (₦12.6 million) in 1970. In 1980 the external debt service payment was US \$841.6 million (₦630.2 million) jumped to US \$2.1 billion (₦3.6 billion) in 1985 and US \$ 3.25 billion (₦26.11 billion) in 1990. The Country's external debt service payments fluctuating from US \$ 1.9 billion (₦1.9 billion) in 1995 to US \$ 1.1billion (₦107.1 billion) in year 2000 and US \$ 1.4 billion (₦180.3 billion) in 2005. As a result of debt cancellation of Obasanjo regime in the middle of 2000s, Nigeria external debt service payment decreased to US \$ 354.6 million (₦53.3 billion) in 2010 and declined to US \$ 336.2 million (₦64.7 billion) in 2015.

#### 4. EMPIRICAL REVIEW

Previous studies on the impact of external debt on economic growth have divergent views. For instance, [23] examines the effect of external debt on economic growth of Nigeria. Ordinary Least Squares (OLS), Augmented Dickey-Fuller (ADF) Unit Root test, Johansen Co-integration test and Error Correction Method (ECM) were employed in the empirical analysis. The findings from the error correction method show that external debt has contributed positively to the Nigerian economy. [24] also examines the causal nexus between public debt and economic growth in Nigeria between 1970 and 2010 using a Vector Autoregressive (VAR). The variables used in the study were tested for stationarity using the Augmented Dickey Fuller and Philip Perron test. The result shows that the variables are stationary at first differencing. Co-integration test was also performed and the result reveals the presence of co-integration between public debt and economic growth. The co-integration results show that public debt and economic growth have long run relationship. The findings of the VAR model revealed that there is a bi-directional causality between public debt and economic growth in Nigeria.

[25] also investigate the relative impact or potency of both external and domestic debts on the performance of the Nigerian economy with emphasis on which of the debt type exert more impact or influence on the major macroeconomic variables of per capita GDP and gross domestic investment. Time series data were obtained from various sources from 1970 to 2011 and were further subjected to series of econometric analysis. The result reveals that external debt is

superior to domestic debt in terms of economic growth, external debt and not domestic debt crowd-out domestic investment in Nigeria. [26] also examine external debt burden and its impact on major macro economic variables in Nigeria. The econometric method of co-integration technique was applied to establish the quantitative impact and relative significance of the explanatory variables. The results show that external debt burden, foreign direct investment, inflation and export have a positive relationship with economic growth.

However, [27] while looking at how debt relief boosted growth in poor countries asserts that external debt beyond 20-25 percent of GDP in net present value terms contributes negatively to the economy. [28] in his study of the impact of external debt on economic growth in sub-Saharan African countries found that in the region the external debt to GNP (EDT: GNP) ratio is so high that it creates debt overhang problems that consequently affect investment and growth negatively. [29] also investigates the impact of aid and external debt on growth and investment and found a negative impact of debt and debt service on growth and investment.

[30] also investigates both the short-run and long-run relationships between economic growth and external debt service for Turkey during 1956-1996. The study employed a standard production function model analyzed using multivariate co-integration techniques. The Vector Auto regression estimates showed that there exists one Co-integration equation. It also revealed that debt service is negatively related to economic growth in the long-run. [31] also examines whether external debt promotes economic growth in Nigeria using time-series data from 1970-2007. The regression equation was estimated using econometric techniques such as Augmented Dickey-Fuller test, Granger causality test, Johansen co-integration test and Vector Error Correction Method (VECM). The results reveal that causality does not exist between external debt and economic growth in Nigeria. [32] find evidence of the "debt overhang" hypothesis since their estimate for 93 developing countries over the period 1969-98 shows that a large external debt reduces economic growth. He concluded that the overall impact of debt on growth is negative.

[33] explore the relationship between external debt and economic growth in Pakistan for the

period of 1972-2005, using time series econometric technique. Their result shows that external debt is negatively and significantly related to economic growth. [17] also examines the impact of external debt on economic growth and public investment in Nigeria from 1970-2002. The empirical investigation was done using the Co-integration test and Error Correction Method. The study shows that debt servicing pressure in the country has had a significant adverse effect on the growth process, and past debt accumulation negatively affects public investment. [34] also examine the impact of the huge external debt, with its servicing requirements on economic growth of the Nigerian and South African economies. The Neoclassical growth model which incorporates external debt, debt indicators, and some macroeconomic variables were employed and analyzed using both Ordinary Least Square (OLS) and Generalized Least Square (GLS) methods. Their finding reveals negative impact of debt and its servicing requirement on the economic growth of Nigeria and South Africa.

[35] empirically investigates the effect of external debt service payment practices on the economic growth of Nigeria. Ordinary Least Square method of multiple regression was used to examine how debt payment to multilateral financial creditors, Paris club creditors, London club creditors, Promissory Notes holders and other creditors relates to a gross domestic product (GDP) and gross fixed capital formation (GFCF) using data from 1981-2004. The study provides evidence that debt payment to Paris club creditors and Promissory Notes holders are positively related to GDP and GFCF while debt payment to London club creditors and other creditors show a significant negative relation to GDP and GFCF.

## 5. METHODOLOGY

### 5.1 Sources of Data

The data for this study was obtained mainly from secondary sources mainly from Central Bank of Nigeria (CBN) statistical Bulletins, Debt Management Office and relevant journals from 1990-2015. Data includes data on Gross Domestic Product (GDP) as a proxy for Economic Growth, External Debt Stock (EXDS), External Debt Service Payment (EDSP), and Exchange Rate (EXGR).

### 5.2 Method of Data Analysis

The techniques of estimation employed in the study include Augmented Dickey Fuller (ADF) test, Johansen Co-integration, Vector Error Correction Mechanism and Granger Causality Test.

### 5.3 Model Specification

This study employed Classical Liberal theory which specifies that economic growth [proxy by Gross Domestic Product (GDP)] is significantly influenced by the External Debt indices (External Debt Stock, External Debt Service Payment, and Exchange Rate) is formulated as follows;

$$GDP = f(EXDS, EDSP, EXGR)$$

$$\ln GDP = \beta_0 + \beta_1 \ln EXDS + \beta_2 \ln EDSP + \beta_3 \ln EXGR + \mu$$

Where;

The a priori expectation is  $\beta_1, \beta_2, \beta_3 > 0$

LnGDP = Gross Domestic Product

LnEXDS = External debt stock

LnEDSP = External debt service payment

LnEXGR = Exchange rate

U = Disturbance Term

$\beta$  = Intercept

$\beta_1 - \beta_3$  = Coefficient of the independent variables.

Note: All variables are in their natural logarithm form.

## 6. RESULTS AND DISCUSSION

### 6.1 Stationary Test

Stationary tests performed for all the variables under investigation using Augmented Dickey Fuller (ADF) and Philip Perron (PP) tests. The results of Stationarity of the variables presented in Table 1.

The results of stationary tests of Table 1 reveal that only External Debt Service Payment (EDSP) is stationary at the level and significant at 1% in both ADF and PP statistics tests. Other variables; Gross Domestic Product (GDP), External Debt Stock (EXDS) and Exchange Rate (EXGR) is stationary at the First difference. The results indicate that variable EDSP is integrated of order zero I (0), while other variable: GDP, EXDS and EXGR are integrated of another one I (1). Since all variables are at most at the first difference, this satisfied Error Correction Model (ECM).

**Table 1. Stationary test statistics (ADF & PP Statistics)**

Variable	Model specification	Augmented dickey fuller (ADF) test		Order of Integration	Phillip Perron (PP) Test		Order of Integration
		Level	First difference		Level	First difference	
GDP	Intercept	-0.7277	-0.9849***	-	3.0180	-4.2756***	I (1)
	Trend and Intercept	0.4538	-1.6170***	-	0.4971	-5.6524***	I (1)
EXDS	Intercept	-2.4236	-3.6317**	I (1)	-1.5017	-3.3040**	I (1)
	Trend and Intercept	-2.7954	-3.5708**	I(1)	-1.9710	-3.2250**	I(1)
<b>EDSP</b>	Intercept	-4.125**	-9.1070***	I(0)	-4.1867***	-12.9626***	I(0)
	Trend and Intercept	-4.4012	-7.5041***	I(0)	-4.4684***	-13.8474***	I(0)
EXG	Intercept	0.3976	-5.2758***	I(1)	0.4044	-5.3458***	I(1)
	Trend and Intercept	-2.1661	-5.3780***	I(1)	-2.1661	-5.3778***	I(1)

Note: \*\*\* and \*\* indicate rejection of the null hypothesis of non stationary at 1% and 5% significant level respectively based on the Makinnon critical value

Source: Authors' Computation using E-view

### 6.2 Co-Integration Test

Since all the variables are stationary at most in order of one, then we can proceed to co-integration.

The results from Johansen co-integration from both Trace and Maximum Eigen Value Statistic tests show that there are two co-integrating equations in each case. This suggests that there is a long run relationship between the variables under consideration.

### 6.3 Error Correction Model

Error Correction Model (ECM) is used to examine the impact of external debt variables on economic growth.

Table 3 reveals that External Debt Stock (EXDS) has a negative impact on Gross Domestic Product (GDP) since coefficient of EXDS is -3.0483. The negative impact is significant at 10% with the probability of 0.0937. This result implies that 1 unit increased in External Debt Stock (EXDS) has 3.0483 units decreased in Gross

Domestic Product (GDP). Probable explanations for this could be as a result of poor utilization of external loans. To support this observation, [7] attest that most of the money was not used for the purposes for which they were borrowed. In another study, [8] also confirms that government fails to utilize these loans to foster economic growth and development optimally.

The coefficient of External Debt Service Payment (EDSP) is also negative (-5.8144) which implies that External Debt Service Payment (EDSP) has a negative impact on Gross Domestic Product (GDP) although insignificant. This implies that 1 unit increased in EDSP led to decrease in GDP by 5.8144 units. The reason for this result may be as result of pervasive corruption and mismanagement, which has bedevilled the Nigerian economy to meet its debt service payments obligations. This opinion is line with the view of [36] that corruption and misapplication of borrowed funds has made debt servicing problematic and an impediment to economic growth and development. A similar view was expressed by [17] that inability of the Nigerian economy to meet its debt service

**Table 2. Johnson Co-integration (Trace and Max-Eigen Value) statistic test**

Co-integration trace test (A)				
Hothesized no. of CE (s)	Eigen value	Trace statistics	0.05 critical value	Prob.
None	0.9536	151.0964	47.8561	0.0000
At most 1	0.6885	46.7026	29.7971	0.0003
At most 2	0.1840	7.0451	15.4947	0.5724

Co-Integration maximum Eigen value test (B)				
Hypothesized no. of CE (s)	Eigen value	Max –Eigen statistics	0.05 critical value	Prob.
None	0.9536	104.3938	27.5843	0.0000
At most 1	0.6885	39.6575	21.1316	0.0001
At most 2	0.1840	6.1840	14.2646	0.4995

Note: \*\* indicate rejection of the hypothesis at the 0.05 level  
Source: Authors' Computation

**Table 3. Results of error correction model**

**Dependent variable: D (GDP)**

Variable	Co efficient	Std error	T-statistic	Prob.
D (EXDS)	-3.0483	1.7628	-1.7291	0.0937
D ( EDSP)	-5.8144	5.8810	-0.98870	0.3305
D ( EXGR)	248.6794	76.5464	3.2487	0.0028
ECM (-1)	-0.2169	0.0870	-2.4930	0.0182

R-squared = 0.5124; Mean dependent Var = 27850.75  
Adjusted R-squared = 0.42631; S.D dependent Var = 5974.84  
S.E of Regression = 6135.87; Durbin – Watson Stat = 1.6157  
Source: Authors' Computation



**Table 4. Pair wise Granger causality test**

<b>Hull hypothesis</b>	<b>Obs.</b>	<b>F-statistic</b>	<b>Prob.</b>
EXDS does not Granger cause GDP	36	0.0117	0.9884
GDP does not Granger cause EXDS	36	0.2550	0.7766
ESDP does not Granger cause GDP	36	0.3103	0.7356
GDP does not Granger cause EDS	36	0.0319	0.9687
EXGR does not Granger cause GDP	36	2.0106	0.1522
GDP does not Granger cause EXGR	36	0.3677	0.6955

*Source: Authors' computation*

payments obligations has resulted in debt overhang or debt service burden that has militated against its growth and development. In another study, [19] opine that accumulated debt service payments create a lot of problems for countries especially the reason of the developing nation being that a debt is serviced for more than the amount it was acquired and this slows down the growth process in such nations.

The result also indicates that Exchange Rate (EXGR) and Gross Domestic Product (GDP) are positively related. The coefficient of EXGR is positive figure of 248.68. This implies that Exchange Rate (EXGR) has positive impact on Gross Domestic Product (GDP) and has the positive impact is statistically significant at 1%. This implies that 1 unit increased in Exchange Rate (EXGR) has 248.68 units in Gross Domestic product (GDP).

Result also shows that the coefficient of Error Correction Model (ECM) is -0.2169. The ECM result shows the expected negative figure which is statistically significant at 5%. The result supports our earlier conclusion that the variables are cointegrated and have long run relationship. The ECM result shows that Gross Domestic Product (GDP) would adjust to its long-run equilibrium path concerning change in External Debt Stock (EXDS), External Debt Service Payment (EDSP) and Exchange Rate (EXGR).

#### 6.4 Causality Test

Table 4 reveals that External Debt Stock (EXDS) does not granger caused Gross Domestic Product (GDP), and Gross Domestic Product (GDP) does not granger caused External Service Stock (EXDS). Likewise both External Debt Service Payment (EDSP) and Exchange Rate (EXGR) does not granger caused Gross Domestic Product (GDP) and Gross Domestic Product (GDP) does not granger either External Debt Service Product (EDSP) or Exchange Rate (EXGR). This indicates that Gross Domestic Product (GDP) is not causally related with

External Debt Stock (EXDS), External Debt Service Payment (EDSP) and Exchange Rate (EXGR).

Empirically, this study attests to the studies of [30,24,26] who reveal that there is no definite relationship between external debt stock and Nigeria's economic growth. The result of this study is also consistent with the studies of [30,27,34,35] that find negative impact of external debt on economic growth in Nigeria. This study is in line with the study of [31] who reveals that causality does not exist between external debt and economic growth in Nigeria.

However, the study is at variance with the study of [24] who find a positive impact of external debt on economic growth in Nigeria. Finding of this study does not consistent with the study of [24] who concludes that there is bi-directional causality between external debt and economic growth in Nigeria.

This finding implies that external debt stock of the country over the years has not contributed positively to Nigerian economic growth, probably because of accrued volatile compound interest and the ever-increasing appetite of various governments to secure a loan for dubious projects.

#### 7. CONCLUSION

The study examines the impact of external debt on economic growth of Nigeria. Specifically, the study determines the relationship between external debt and economic growth, investigates the effect of external debt on economic growth and examines causality between external debt and economic growth in Nigeria. The study establishes that economic growth is not casually related with external debt stock, external debt service payment and exchange rate. Conclusively, external debt of Nigeria has not contributed positively to the growth process of the country. The consequence has subjected the country to abject poverty, insecurity, high

unemployment and ritual killing. Misappropriation of funds in Nigeria has devastated the gains that would have otherwise resulted from the substantial external loans Nigeria has had to borrow for developmental projects as successful government officials have syphoned the money to an unknown destination.

## 8. RECOMMENDATIONS

Based on the findings and conclusion, the following recommendations are made:

1. That government should empower Debt Management Office to set the mechanism in place and ensure that loans are utilised for purposes they are meant for and also to prosecute corrupt public officers who siphoned the money.
2. That Debt Management Office should spell out a ceiling for borrowing for both states and federal governments based on well-defined criteria. And also keep adequate track of the debt service payment obligations.
3. That Debt Management Office should ensure that external debts are contracted solely for economic reasons and not for social or political reasons. The composition of the external debt should also be regularly checked in order to forestall problems associated with the bunching of debt service obligations.
4. Federal government should put palliative measures in place to cope with the sudden or unexpected shortfalls in earnings from exports or anticipated expenditures on imports.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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