EXTERNAL DEBT AND ECONOMIC GROWTH IN NIGERIA (1980 – 2014)

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ABSTRACT

This paper empirically examined the impact of external debt on Nigeria's economic growth within the period 1980-2014. The study employs time series data obtained from the Central Bank of Nigeria statistical bulletin volume 24, (2014). The methodology adopted in the study was multiple regression analysis using Ordinary Least Square (OLS), in which RGDP, the regress and was regressed on External Debt Stock (EDS), External Debt Service Payment (EDSP) and Official Exchange rate (EXR) as the regressors. In order to avoid spurious results, some standard econometric tests were conducted and the following results surfaced: Two of the variables (EDS and EDSP) were stationary at level while the other two variables (RGDP and EXR) were stationary at the first differencing. The cointegration result indicated that there is long run relationship among the variables with three cointegrating vectors, while the speed of adjustment of the cointegrating equation is 20.37% per annum. There was also a unidirectional causality relationships running from EDS to RGDP, as shown by the granger causality test. The R squared 86.29% further indicated goodness of fit for the regression trend. The F-statistic of 62.98700 with corresponding zero probability (0.00000) at 5% level, and the Durbin Watson statistic at 1.96 suggested, statistical significance and evidence of no autho-correlation among the variables respectively. The researcher concluded that external debt has a significant impact on Nigeria's economic growth. Based on the findings above, the study recommends among others, that external debt should only be procured by the government through the agency concerned, solely for investment in real sectors of the economy, except in emergencies, and besides, the earnings from the said investment should be enough to cover external debt servicing and still benefit the economy in question to avoid debt overhang.

Keywords: External debt, economic growth, economy and Nigeria.

INTRODUCTION

The core objective for any independent country is economic growth sustainability, more especially the developing nations in which inadequate capital formation is one of their major features, due to low levels of domestic savings and investment [1]. It follows that developing countries facing a scarcity of capitals are generally accepted to resort to external sources for borrowing, so as to supplement domestic saving [2, 3 4]. Soludo (2003)

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[5], opined that nations borrow for two broad reasons, for macroeconomics reasons that is to finance high level of consumption and investment or to finance transitory balance of payment deficit and avoid budget constraints so as to boost economic growth and reduce poverty. The constant need for government to borrow in order to finance budget deficit has led to the creation of external debt [6].

External borrowing is a major source of public revenue and for financing capital project in any economy [1]. It is a means through which nations bridge their budget deficits and carry out economic activities that are aimed at increasing the social welfare of the people and stabilizes economic growth and development in such countries. Hameed, Ashraf and Chaudary (2008) [7] asserted that external borrowing ought to accelerate economic growth especially when domestic revenue is inadequate. External borrowing also improves total factor productivity through an increase in output which at the end of the day improves the growth of the country's Gross Domestic Product (GDP). The significance of external debt cannot be overemphasized as it acts as a booster for economic growth and thus enhances the standard of living, thereby reducing poverty.

It is obviously recognized in the international arena that excessive external indebtedness in most less developed nations constitutes a major obstacle to their economic growth and stability [8]. The underdeveloped nations like Nigeria have often contracted a lot of foreign debts that led to the mounting of trade debt arrears at highly concessional interest rates. Gohar and Butt (2012) [9] noted that accumulated debt payments constitute serious issues for countries especially the underdeveloped countries; reason being that a debt is actually serviced for more than the amount it was procured and this slows down the growth process in such countries. The inability of the Nigerian economy to meet its debt service payments obligations has resulted in debt services burden or debt overhang. This has militated against her economic growth via development [8]. The genesis of Nigeria's external debt service crisis dates back to 1978 after a fall in world a oil prices. Prior to this occurrence Nigeria had incurred some minor debt from World Bank in 1958 with a loan of US $28millon dollar for railway construction and the paris club debtor nation in 1964 from Italian government with a loan of US $13.lmillion for the construction of the Niger dam. The major borrowing of US $ 1 billion known as the "Jumbo Loan" was in 1978 from international capital market (1CM) [10].

Nigeria's external debt declined considerably following the paris club debt exit in 2005, which led to US $18 billion pay out from the existing debt value of about US $36 billion considered to be at a crisis level. This freed up colossal sums devoted to debt servicing and repayments had positioned the country to concentrate on the task of social and economic development. Indeed, the fortuitous gains from the debt relief, estimated at US $lbillion annually, three quarters of which accrues to the federal government and one quarter to the states, were pooled into a poverty fund and channeled into specific investments to hasten the attainment of the millennium development goals.

External borrowing has a positive effect on the growth and investment of a nation up to a point where high levels of external debt servicing set in, and affects the growth as the focus moves from financing private investment to repayments of debts. Pattilo, poirson and Ricci (2002) [11] adduced that at low levels external debt has significant impacts on economic growth but above particular thresholds accumulated debt begins to have a negative effect an economic growth. Notwithstanding, Fosu (2007) [12] pointed out that high debt service payment shift expenditure away from health, education and other social

sectors. This in turn disrupts the motive behind external borrowing which is to boost economic growth and development rather than get drowned in the pool of debt services payments which eat up most of the country's resource and impedes her growth due to high interest payments oh external debts.

Most recently, there has been heightened concern about the country's rising debt and the implications for future economic growth and development. The total external debt outstanding rose from US $3.72billion in 2008 to US $6.53billion in 2012. However, the percentage of external debt service in the same period plummeted from 11.46 per cent to 5.96 per cent [13]. In December31 2012, external debt stood at $6.5 billion, while more recent data (July, 2014) Shows that external debt stands at US $9.35billion. In the 2012, 2013 and 2014 budgets, N46.lbillion, N48.39billion and N48.39billion respectively were allocated to external debt services while the Medium Term Expenditure Frame Work And Fiscal Strategy Paper for 2014-2016 allocates 448.39billion and N48.39billion to debt service in 2015 and 2016 [14]. The national Assembly also approved a total of $7.l09billion for the federal and state governments under the 2012-2014 Medium Term External Borrowing Plan in December 2012 to fund pipeline projects in the country, which would raise the country's external debt to $ 13.7billion. Moreover, the government planned as part of 2013 appropriation to borrow the sum of$ ibillion from the international capital market. It is therefore imperative to examine the impact of external debt on Nigeria's economic growth.

Statement of the Problem

There exists a strong division among economists on the role of external borrowing in the economic growth process. One aspect of the literature stressed the positive or productive impact of external debts, as a necessity to augment domestic savings, improve investment and accelerate economic growth [15]. The argument is that if external debts are converted into capital and other vital inputs, economic growth will occur. A counter view is that the accumulation of external debt triggers a continuous outflow of resources in the form of debt service payment, that could have been applied to development projects and revamp the nation's infrastructure [16]. It is expected that as debt obligations soar, the export earnings available to the domestic economy would shrink as some of the export earnings are diverted to servicing the debt this in turn might have indirect effect on government expenditure and negatively affect economic growth [17]. The negative effect of debt servicing on growth partly results from the cut back of government expenditure following the debt induced liquidity difficulties [18]. These difficulties may provoke a shift in the budget away from the social sector or public investment. Indeed public expenditure is a key driver of economic activities in many developing countries [19].

Nevertheless, another counter position argued that when debt reaches a certain threshold, its effect turns adversarial as debt servicing explodes and countries in question find themselves on the wrong side of the debt laffer curve, with debt crowding out investment and economic growth [20]. Therefore, this research work is meant to bridge the gap between the opposing views by ascertaining the impact of external debt on Nigeria's economic growth through a wide scope of 1980-2014 beyond the previous researchers' scopes.

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Research Questions

In order to address the problems captured in the statement of the problem the following researchable questions will guide this research work.

i.   What is the impact of external debt on Nigeria's economic growth?
ii. Is there any causality relationship between external debt and Nigeria's economic growth?
iii. Does a long run relationship exist between external debt and Nigeria's economic growth?

Objectives of Study

The broad objective of this study is to determine the impact of external debt on Nigeria's economic growth at large while the specific objectives include, to:

i.   Find out the impact of external debt on Nigeria's economic growth
ii. Investigate causal Relationship between external debt and Nigeria's economic growth
iii. Ascertain the long run relationship between external debt and Nigeria's economic growth

Research Hypotheses

This provides tentative answers to research questions subject to proof or otherwise by the evidence from the study. Hence the hypothesis to be tested in the course of this study includes:

Ho: External debt has no significant impact on Nigeria's economic growth.

Ho: There is no causal relationship between external debt and Nigeria's economic growth

Ho: There is no significant long run relationship between external debt and Nigeria's economic growth

Significance of the Study

The issue of external debt crisis has generated a lot of concern to the government of Nigeria and the nation as a whole; this has resulted to the utilization of the greater percentage of the country's limited resources in servicing the debt annually. This scenario has contributed to reduced savings and disinvestment in Nigeria's economy, and hence retardation in the overall rate of the country's economic growth. This research work is out to ascertain the long run and causal relationship between external debt and Nigeria's economic growth. The study is significant as its findings will serve as a yardstick for alternative policy instrument to tackle external debt crisis management in Nigeria. It will as well act as instrument for revamping government policies on loan procurement and debt servicing in this country. This research work may serve as well as a basis for further studies and documentation on Nigeria's external debt literatures.

Scope and Limitation of Study

This study seeks to analyse Nigeria's external debt and its impact on her economic 'growth. In order to fully capture its effects on the economy, a thorough empirical investigation will be conducted with data within the period of 1980-2014, that is, 34 years. This period covers the period after the fall of oil prices and also post debt relief era.

The researcher encountered a number of constraints in the course of the study to include: data sourcing difficulty and inconsistence due to poor nature of information management in Nigeria, time factor, resource constraint such as finance, and host of other constraints that prevented the researcher from presenting a better work than this.

RESEARCH METHODOLOGY
Research Design

This research work examines the impact of external debt on Nigeria's economic growth, from 1980-2013. The methodology is essentially econometric analysis which will be used to estimate and analyse the influence of the regressors: External debt stock (EDS), External debt service payment (EDSP) and (EXR) on Nigeria's economic growth, the (RGDP). The research work adopted ex-post facto research design. This is as a result of the fact that the study attempts to explore causes and effects relationships where causes already existed and cannot be manipulated.

Ex-post research design is a systematic empirical enquiring in which scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulated. Inferences about relations among variables are made, without direct interventions. The researcher used the multiple regression analysis based on the classical linear regression model, otherwise known as ordinary least square (OLS) technique. This technique is preferred to others as it provides satisfactory results for estimates of structural parameters [21].

Model Specification

The main objective of this research is to investigate the impact of external debt on Nigeria's economic growth. The model is derived from a single open macroeconomic debt growth model employed by Boboye and Ojo (2012) [22]. The model is specified functionally, thus:

RGDP = F (EDS, EDSP, EXR) (1)

Where RGDP=real gross domestic product, EDS=External Debt Stock, EDSP=External Debt Service payments, FXR=Official Exchange Rate.

The stochastically specification of the model is of the form:

RGDP = b0 + b1 EDS + b2 (EDSP) + b3 (EXR) + u_T (2)

Where B_0 = error terrn

Where b_0 = parameter intercept or constant term,

b_1, b_2 and b_3 = coefficients of the pararrieters'estirnates and $b_1, b_2 < 0$ $b_3 > 0$.

i.   Real Gross Domestic Product is a measure that quantifies the value of goods and services produced in a country usually calculated annually. It is used to represent economic growth in this research work since it is adjusted for inflation and therefore provides an accurate figure.

ii.   External Debt Stock is the principal at which the debt was procured and it is used as a proxy for capturing external debt burden. The apriori relationship between Real Gross Domestic Product and External Debt Stock is expected to be negative. It then means that the higher the External debt stock, the lower the economic growth of the country in question.

iii.   External Debt Service Payments are the amount used in repayment of the external debt. It is as well used as a proxy for capturing external debt burden. The a priori relationship between Real Gross Domestic Product and External Debt Service

repayments is expected to be negative. It therefore implies that the higher the debt service repayments, the lower the country's economic growth.

iv.   Exchange Rate connotes the price of a country's currency in relation with another country's currency. It is part of the model for the fact that it is a macroeconomic indicator and as well a monetary aggregate in an open economy. The priori relationship between Real Gross Domestic Product and Exchange Rates is expected to be positive. It then indicates that the higher the exchange rate, the higher the economic growth; Real Gross Domestic Product (RGDP).

Method of Estimation

The time series data within the period of 34 years will be estimated by applying ordinary least square (OLS) technique. The researcher adopted this not only because of its computational simplicity but because of its optimal properties such as unbiased, minimum variance, linearity, zero mean value of the error terms etc. [23].

The following preliminary tests shall be carried out, to include: *Unit Root Test* Cointegration Test * Error Correction Mechanism Test* Granger causality Unit Root Test: this is used to ascertain the order of integration of the individual time series under consideration. It is used to test for stationary of the time series data. These tests are at first conducted at levels and then in first difference form while conducting the tests three different model with varying deterministic components are considered. They include

i.   Model with an intercept which assumes that there are no linear trends in the data such that first difference series has zero mean

ii.   Model with a linear trend which includes a trend stationary variable to take account of unknown exogenous growth, and

iii.   A model which neither involves a trend nor a constant

The most famous one is Augmented Dickey-fuller (ADF) test. Therefore, Augmented Dickey fuller (ADF) test statistics shall be compared with critical values at 5% level of significance. If ADF test statistics is greater than the critical values with consideration on absolute values, the data at the tested order will be said to be stationary. The Augmented Dickey fuller test depends on rejecting a null hypothesis of unit root (series of non-stationary) in favor of the alternative hypothesis of stationary. The test is performed with and without a deterministic trend for each of the series.

The general form of ADF test is estimated by the regression below:

$$\Delta Y_t = \alpha_0 + \alpha Y_{t-1} + \varepsilon \alpha \Delta Y_t + e_t$$

$$\Delta Y_t = \alpha_0 + \alpha Y_{t-1} + \varepsilon \alpha \Delta Y_t + \mu_1 + e_t$$

Where Y is a time series, t is a linear time trend, Δ is the first difference operator, α_0 is a constant, n is the optimum number of lags in the dependent variable and e is the random error term.

The null hypothesis is that a1 = 0. If the null hypothesis ci = 1, then we conclude that the series in question $\Delta (yT)$ has a unit root test in first differences, then the series contains one unit root and is of integrated order one 1(1). But if the test fails to reject the test in levels and first difference but rejects the test in second differences, then series contain two units roots and is of integrated order two 1(2).

i.   **Cointegration:** The next step after the text for the order of integration is to test for cointegration. It is used to verify whether long run relationship exists among the parameters in the model [24].

ii.   **Decision rule:** if t-statistics is greater than the level of asymptotic critical values or if p-value is less than the level of significance accept H0: (there is significant co-integration relationship) if the tested statistics is less than the asymptotic critical values or if the p-value is greater than the level of significance. Testing sequence terminates if the null hypothesis cannot be rejected for the first time.

iii.   **Error Correction Mechanism (ECM):** indicates the speed of adjustment from short-run to long-run equilibrium state. The a priori expectation is that the ECM coefficient must be negative and significant for errors to be corrected in the long-run. Moreover, the greater the coefficient of the error term (VECM), the high the speed of adjustment of the model from short-run to the long-run equilibrium state. The VECM (p) function is written thus:

iv. $\Delta yt = \delta + pyt + \sum \Delta yt_{-1} + \sum t$ where Δ is the differencing operators, such that $\Delta yt_{-1} = yt - yt_{-1}$.

v.   Causality Test: This is used to test for causality between two parameters. In this case the aim is to check for a causal relationship between external debt and economic growth. The rule states that if the probability value is between 0 and 0.05 there is a causal relationship between the variables under consideration.

Data Discussion

In the analysis of the results obtained as regards to the validity of the variables used in terms of their statistical significance, decision will be made based on the criteria below:

i.   **Signs and Magnitude of the Parameter**: The signs can be positive or negative (+or-) depending on the economic a priori condition set by economic theory. The variables in the model are expected to have signs and magnitudes that is in agreement with economic theory, they are acceptable if they do, otherwise they are rejected except in the case where there is an explanation to prove that in a particular situation the principles of economic theory do not apply.

ii.   **Coefficient of Multiple Determination (R2):** This reveals the percentage of the total variation of the regress ands (dependent variable) that can be explained by the regressors (independent variables) it reveals the extent to which the regressors influences the regressand. It is the measure of the goodness of fit of the model; the nearer the R2 is to zero the insignificant the fit and vice versa.

iii.   **Durbin-Watson Test:** The D.W is applied to check for the presence of positive or negative autocorrelation in a model. The simple correlation matrix of the parameters would be applied as a guide in ascertaining what combinations of the regressors are responsible for multi-colinearity. It is a simple guide applied to specify the correct combination of the regressors.

Decision Rule: if the D.W calculated is less than lower limit, reject the null hypothesis of no autocorrelation and accept that there is positive autocorrelation of the first order. If D.W calculated is greater than (4-dL) the null hypothesis is rejected of no autocorrelation and accept that there is Negative autocorrelation of the first order. If du <d* < (4 — du) we

accept the null hypothesis of no autocorrelation. But if dL* <d"< du or if (4 — du) <d*< (4 — dL) the test is inconclusive.

iv.   F-Test: it is used to check the overall significance of the entire model as regards the regress and. It tests the joint variance of the regressors. The level of significance 5% is to be used. Therefore, when the probability is 0.05, the regressors' parameter estimates will be jointly statistically significant.

Decision Rule: if F-calculated is greater than F-tabulated the null hypothesis is rejected, that means that the difference between the sample means is significant. But if the F-calculated is less than F-tabulated the null hypothesis is accepted, it means that the sample means are not significantly different (F*> F reject and if F*< F, accept).

PRESENTATION AND ANALYSIS OF RESULTS

In order to empirically evaluate the impact of external debt on the economic growth of Nigeria, the variables considered are Real Gross Domestic Product (dependent variable), External Debt Stock (EDS), External Debt Service Payments (EDSP) and Exchange Rate (EXR) were used as the independent variables. The result covers the period 1980—2013.

Having stated the objective, hypothesis and models in the previous chapters, the study employed Eview (7.0 version) computer software application while estimating the models for reliable results. The general discussion on the various tests conducted and their analysis are considered below.

Presentation of Result and Evaluation

(I) Unit Root Test: This test was conducted to know whether the mean value and variance of the variables are constant overtime. The unit root test using augmented dickey — fuller test was adopted under the following hypothesis.

H_0: δ = 0 (Non- stationary)

H_1: δ < I (Stationary)

Decision Rule: Reject H_0 if the absolute value of the calculated ADF exceeds the absolute value of 5% critical value.

Variables	ADF Test	Statistic	5% critical	Values	1% critical
D(RGDP)	10.99752	3.557759	4.273277	1(1)	Stationary
D(RGDP)	4.913342	3.552973	4.262735	1(0)	Stationary
D(RGDP)	3.861412	2.981038	3.71 1457	1(0)	Stationary
D(RGDP)	5.342168	3.557759	4.273277	1(1)	Stationary

Source: Researcher's own compilation

From the result above, Real Gross Domestic Product (RGDP) and Official Exchange Rate (EXR) exhibit stationary at first difference while External Debt Stock (EDS) and External Debt Service Payment (EDSP) exhibit stationary at level. The stationary is achieved by comparing their respective ADF test statistics with the 5% critical values; it is observed that their respective test statistics are greater than the critical values in absolute terms. Thus, the series are stationary.

(ii) Cointegration Tests

Cointegration was used to test for long run relationship between the variables considered. For this purpose, the Johansen co-integration test was adopted. In Johansen's Method, the eigen value statistic is used to determine whether co-integrated variables exist. Co-integration is said to exist if the values of computed statistics are significantly different from zero or if the trace statistics is greater in absolute value than the critical value at 5 per cent level of significance. The model with lag I was chosen with the linear deterministic test assumption and the result is presented below. Johansen co-integration test for the series include RGDP, EDS, EDSP and EXR.

Table: Cointegration Result

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized	Trace 0.05			
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.895813	142.5479	47.85613	0.0000
At most 1 *	0.698801	70.17766	29.79707	0.0000
Atmost2*	0.623942	31.77818	15.49471	0.0001
Atmost3	0.014943	0.481770	3.841466	0.4876

Trace test indicates 3 cointegrating equations at the 0.05 level

Source: Researcher's own compilation.

From the result above, the Johansen cointegration indicated three cosintegrating equations. Under the Johansen Cointegration Test, it could be said that there are three cointegrated vector. Cosintegration is said to exist if the values of computed statistics is greater than 5% critical value. From the trace statistics, all the absolute values of these variables are greater than 5% critical values (i.e. [142.5479 > 47.85613], [70.17766 > 29.79707] and [31.77818 > 15.49471]. Also, its Eigen value was significantly greater than zero. However, looking at their eigenvalues [0.895813], [0.698801] and [0.623942] respectively, the trace test indicates 3 cointegrating equation at 5% level of significance. In other words, the null hypothesis of no cointegration among the variables is rejected since three equations at 5% were statistically significant. The test result shows the existence of a long-run equilibrium relationship among the variables. The normalized cointegrating adjusted coefficients for three cointegrating equation given by the long-run relationship is

RGDP = 0.104607EDS + 30683.55EDSP — 3065.799EXR
SEE =   (0.00934)   (5377.32)   (890.75)

Where RGDP is the dependent variable, 0.104607 is the coefficient of EDS, 30683.55 is the coefficient of EDSP and 3065.799 is the coefficient of EXR. The sign borne by the adjusted coefficient estimates of EDS and EDSP is positive while that of EXR is negative. This implies that in the long run, the relationship that will exist between EXR and RGDP will be negative while EDS and EDSP will impact positively on RGDP.

(iii) Error Correction Mechanism (ECM)

The existence of a long run co-integrating equilibrium provides for short-term fluctuations. In order to straighten out or absolve these fluctuations, an attempt was made to apply the Error Correction Model (ECM). Below is the ECM test for the given data.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	27904.31	6711.565	4.157646	0.0003
EDS	-0.001057	0.000970	-1.089553	0.0052
EDSP	90.66775	560.6408	0.161722	0.8727
EXR	-109.1081	485.2788	0.224836	0.8237
ECM(-1)	-0.203721	0.089612	-2.273366	0.0309

R2 = 0.702556, F-Statistics = 14.358766, Durbin-Watson Statistics = 1.881498
Source: Researcher's own compilation.

From the table ECM (-1) was consistent by assuming a negative values. It suggests that the ECM could correct any deviations from the short run deviation to long-run equilibrium relationship between RGDP and the explanatory variables. The coefficient indicates a low speed adjustment of 20.37% per annum. This implies that following short-run disequilibrium, 20.37% of the adjustment to the long-run takes places within one year.

(iv) Ordinary Least Square Result (OLS)
   Dependent Variable: RGDP
   Method: Least Squares
   Sample: 1980 2014
   Included observations: 34

Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C	187716.6	22664.78	8.282305	0.0000	
EDS	-0.008785	0.003245	-2.707384	0.0111	
EDSP	2504.241	1911.578	1.310039	0.2001	
EXR	3365.582	327.6229	10.27273	0.0000	

R-squared	0.862990	Mean dependent var	397709.4
Adjusted R-squared	0.849289	S.D. dependent var	236975.9
S.E. of regression	91997.54	Akaike info criterion	25.80704
Sum squared resid	2.54E+11	Schwarz criterion	25.98661
Log likelihood	-434.7197	Hannan-Quinn criter.	25.86828
F-statistic	62.98750	Durbin-Watson stat	1.962284
Prob(F-statistic)	0.000000		

   Source: Researcher's own compilation.
      From the regression result above, the regression line is given as appear
   below;
   RGDP = 187716.6 -O.008785EDS + 2504.241EDSP + 3365.582EXR
   SEE   = (22664)   (0.003245)   (1911.576)   (327.6229)

This showed that when all the explanatory variables are held constant, RGDP increases by 187716.6 units, a unit increase in EDS led to a decrease in RGDP by 0.008785 units. Also a unit increase in EDSP led to an increase in RGDP by 2504.241. A unit increase in EXR led to an increase in RGDP by 3365.582 units. The variables were all statistically significant apart from EDSP meaning that they can be used for forecasting purpose. The R2 86.29% meaning that 86.29% of the variations in RGDP are caused by variations in the explanatory variables. The remaining 13.71% are caused by variables not included in the model but captured by the error term. The F- statistic of 62.98700, with corresponding zero probability (0.000000) measures the overall statistical influence of the explanatory variables in explaining the dependent variable. It was found to be statically significant at 5% level. This indicates that the variables included in the model explained approximately 86.29% of the total variations caused by the RGDP. At 1.96 the Durbin Watson statistics suggest evidence of no autho-correlation. This is an indication that the dependent variables; RGDP is well explained by the independent variables.

Test of Hypotheses
Hypothesis I

H_0: External debt stock does not have significant impact on Nigeria's economic growth.
H_1: External debt stock has significant impact on Nigeria's economic growth

From the OLS result, external debt stock was statistically significant and met the a priori expectation. Hence, we reject the null hypothesis of no significant impact and accept the alternative hypothesis and conclude that External debt stock has an impact on Nigeria's economic growth within the period under consideration.

Hypothesis H

H_0: There is no causal relationship between External debt stock and Nigeria's economic growth.
H_1: There is causal relationship between External debt stock and Nigeria's economic growth. To test for the null hypothesis, the study made use of pairwise granger causality test and the result is presented below:

Pairwise Granger Causality Tests
Sample: 1980 2014

Lags: 2
Null Hypothesis: Obs F-Statistic Prob.
EDS does not Granger Cause RGDP 32 11.3006 0.0003
RGDP does not Granger Cause EDS 0.10762 0.8983
Source: Researcher's own compilation

The result of the granger causality above indicates there is evidence of uni-directional causality running from External debt stock to real gross domestic product,(RGDP). This is because the probability values is greater than 0.05. Therefore, the null hypothesis of no causality is rejected and the alternative accepted.

Hypothesis III

H_0: There is no significant long run relationship between External debt stock and Nigeria's economic growth.

H_1: There is significant long run relationship between External debt stock and Nigeria's economic growth.

To test the null hypothesis stated above, the researcher made use of the Johansson Cointegration analysis and the result is presented below;

Unrestricted Cointegration Rank Test (Trace)

Hypothesized Trace 0.05				
No. of CE(s) Eigenvalue Statistic Critical Value Prob.**				
None *	0.895813	142.5479	47.85613	0.0000
At most *	0.698801	70.17766	29.79707	0.0000
Atmost2*	0.623942	31.77818 1	5.49471	0.0001
Atmost3	0.014943	0.481770	3.841466	0.4876
Trace test indicates 3 co-integrating equations at the 0.05 level				
Source: Researcher own compilation.				

The results of the co-integration in the table above indicated that the trace statistics is greater than the critical value at 5 percent level of significance in three of the hypothesized equations. This confirms that there is cointegration or long run relationship among the various variables used to model the relationship between External debt stock and Nigeria's economic growth for the period under investigation. In other words, the null hypothesis of no co-integration among the variables is rejected.

Implication of the Result

The OLS result indicated that there is a negative relationship between External debt stock and economic growth of Nigeria. This conforms to the apriori expectation that a negative relationship will exist between External debt stock and Nigeria's economic growth. Hence the negative relationship means that if Nigerian government cultivate the culture of reduced external loan from international financial bodies the result would improve the growth of the economy as shown from the OLS result. The implication of the result therefore is that a decreased rate in External debt stock will continue to accelerate the growth of the Nigerian economy.

CONCLUSION AND RECOMMENDATION
Summary of Findings

The study investigated empirically the relationship between external debt stock and economic growth of Nigeria for the period between 1980 and 2014, employing various techniques of econometric analysis. In the course of the study, the main objective was to determine the impact of external debt stock on Nigeria's economic growth. This was done by testing the null hypothesis that there was no significant influence existing between the variables. It equally empirically investigated if there was a long-run relationship between external debt stock and Nigeria's economic growth; it also verified if there was a causal

relationship between external debt stock and Nigeria's economic growth for the period under review. The variables used for the empirical analysis in this study are; Real Gross Domestic Product (RGDP), External Debt Stock (EDS), External Debt Service Payment (EDSP) and Exchange rate (EXR).

On the application of advanced econometric techniques (Augmented Dickey Fuller, Johansen Cointegration Test, Error Correction Mechanism and Granger Causality Test), the following information were extracted;

i. Two of the variables EDS and EDSP were stationary at zero level using augmented dickey fuller unit root test, while the remaining two variables RGDP and EXR became stationary at first difference. This means it has unit root; this necessitates the application of Johansson cointegration test to test for long run relationship.

ii. The cointegration result indicated that the variables had long run relationship with three cointegrating equations. Hence, there existed a long run equilibrium relationship between external debt stock and Nigeria's economic growth.

iii. The granger causality test shows that there is causality between external debt stock and economic growth.

(iv) To ascertain the impact of external debt stock on Nigeria's economic growth, the study made use of OLS result. The result from the OLS indicates that there is a negative relationship between Nigeria's economic growth and external debt stock (EDS). Finally, the regression result indicated that the coefficient of multiple determination (R2) 0.862990%, indicating that the explanatory variables explained about 86.29% of the total variations in RGDP during the period under consideration while other variables not captured in the model accounted for the remaining 13.71%, the Error Term.

Recommendations

Based on the summary of findings of this project work, the following recommendations are made:

First, every new external debt should only be contracted if its viability in terms of productivity is adequately compared with its servicing obligations by the authorities concerned, to avoid crowding out effect, should the motive behind external debt be attained.

ii. Second, government should through Central Bank of Nigeria strengthen the department for external debt management by employing qualified candidates for the procurement, utilization and management of external debt. Consequently autonomy should be granted to them to avoid reckless external borrowing, by some politicians, and moreover, their promotion should be based on the success of their services to avoid channeling the said fund to secrecy.

iv. Finally, external debt should only be procured by the government through the agency concerned solely for investment in real sectors of the economy, except in emergencies and besides the earnings from the said investment should be enough to cover external debt servicing and still benefit the economy in question, to avoid debt overhang.

Conclusion

The general conclusion that emerged from this study was that external debt stock during the period under review does have significant impact on Nigeria's economic growth.

This is evident as our OLS result reveals that external debt stock has significant impact on Nigeria's economic growth. The result revealed a negative relationship between external debt stock and Nigeria's economic growth, based on the findings during the period under review. The study also revealed that the relationship between economic growth and external debt stock do conform to apriori expectation. It was expected that the higher the external debt stock, the lower the rate of economic growth and vice versa. The implication of the result is that a decreased rate in External debt stock will continue to accelerate the growth of the Nigerian economy.

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