

Impact of Nigeria's External Debt on Its Economic Growth (1981 - 2018)

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Abstract— Over the years, the quest for economic growth and development compelled Nigeria to acquire external debt. This research work is on the impact of Nigeria's external debt on its economic growth. The objective of this study was to determine the impact of Nigeria's external debt on its economic growth. Time series data were applied in carrying out this research work and the data were sourced from Debt Management Office (DMO), Central Bank of Nigeria (CBN) and Nigeria Bureau of Statistics (NBS). Ordinary least square regression analysis was employed in this work with the use of STATA 13 package. The scope of the study is basically focused on Nigeria's external debt from different sources and economic growth from 1981 to 2018. This research focuses on a broad range of issues with the collection of a diversity of data in the field of external debt and economic development. A literature review was used to determine the theoretical basis for research topic and prior research method conducted on various aspects of relating to external debt and economic development. This work also made use of descriptive research design. The findings reveal that Nigeria external debt has a significant impact on its economic growth. It recommended that the Nigerian government should exercise caution in incurring debt and make sure that the external debt incurred is used strictly for capital projects or tied to a particular project that will engender economic growth.

Index Terms— External, Debt, Foreign, Growth.

I. INTRODUCTION

External debt is the portion of a country's debt that is acquired from foreign source such as foreign co-operation, government or financial institution. These loans including interests are usually paid in the currency in which the loan is made. Prior to the establishment of the Debt Management Office (DMO), the Central Bank of Nigeria (CBN) was saddled with the responsibility of the management of national debts in Nigeria. DMO in collaboration with CBN and Federal Ministry of Finance (FMF) currently manage Nigeria's debts. The International Monetary Fund (IMF) is also one of the agencies that keeps track of the country's external debt (Oyejide, Soyede and Kayode, 1985). 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.

External debt is the portion of a country's debt that is acquired from foreign sources such as Foreign Corporations, Governments or Financial Institution (Arnone 2005).

Most countries borrow to promote economic growth and development by creating conducive environment for people to invest in various sectors of their economics (Umaru, 2013).

Similarly, in the words of Chenery (1996) in dual gap theory which stipulates that government borrow to augment their limited resources so as to bridge the savings investment gap. However, borrowings should be channelled to meaningful economic activities. Government should borrow to finance capital project and not recurrent expenses. In order words government should not borrow for consumption purposes. Sanusi (2003) asserted that excessive external debt constitutes limitation to sustainable economic growth and poverty reduction. Solomon (2016) opines that external debt can only be productive if well managed by making the rate of return higher than the cost of servicing the debt.

Nigeria external debt can be traced back to the pre independence period, though the debt level was minimal until 1978, when the first Jumbo Loan of more than \$1.0 billion was raised from the International Capital Market (ICM) (DMO, 2004). However, since 1977, the debt stock incurred by the country has been on a steady increase rising from \$0.763 billion in 1997 to \$ 5.09 billion in 1978 and \$ 8.65 billion in 1980, an increase of over 73.9 percent (DMO, 2004). This subsequently rose to \$35.94 billion in 2004.

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 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. According to World Bank report Nigerians total debt stock as at December 2014 stood at 12.4 trillion. National Bureau Statistics (2017) reports that Nigeria debt to foreign creditors in 2016 stood at 15.05 billion US dollar. Also in a DMO report released in April, 2019 indicates that Nigeria external debt stood at 25, 274.36 million USD. Nigeria's external debt commitment rose by \$11.77 billion in the last four year as the foreign debt component rose from \$10.32 billion as of June 30, 2015 to \$25.27 billion as at 31st December 2018.

These views above inform the researcher to embark on the present study with a view to analysing the impact of Nigeria's external debt on its economic development.

II. STATEMENT OF THE PROBLEM

Over the years, the quest for economic growth and development compelled Nigeria to acquire external debt. The major external loan of US \$ 28 million by Nigeria was acquired from World Bank in 1958 to finance railway construction. Since then, there has been accumulation of external loans aimed at various development projects without

obvious result as expected. Consequently, Nigeria remains among the top most indebted countries in the whole world. Nigeria debt burden profile keep on rising but the economic development and other major macroeconomics goals are constantly falling.

In view of the above, this work is embarked upon to determine the impact of Nigeria's external debt on its economic growth (1981- 2018).

III. OBJECTIVE OF THE STUDY

The objective of this study is to determine the impact of Nigeria's external debt on its economic growth.

IV. RESEARCH QUESTION

The study will provide answer to the question, based on the stated objective:

To what extent does Nigeria's external debt impact on its economic growth?

V. RESEARCH HYPOTHESIS

The objective of this study is hypothesized as follows:

H₀: Nigeria's external debt has no significant impact on its economic growth as proxy by Gross Domestic Product (GDP).

VI. REVIEW OF RELATED LITERATURE

A. Concept of external debt:

The act of borrowing creates debt. Debt therefore refers to resources of money in use in an organization which is contributed by its owners and does not in any other way belong to them (Udoka and Ogege, 2012). However, the concept and meaning of debt must be put in proper perspective so as to be able to distinguish between borrowed funds (loan), other contractual financial obligations and liabilities outstanding to be repaid by the debtor.

Nwadighoha (2005) identifies debt as private or public debt. To Nwadighoha (2005), private debt refers to financial obligation standing against individuals, business firm and non-governmental organizations. Public debt can therefore be said to be financial obligations incurred by government through borrowing within the economy and from outside the territorial boundaries of the country.

Kabadayi (2012) posits that debt will impact positively on an economy up to a threshold point, beyond which any further increase in debt will bring about a negative impact on the economy. External borrowing has been identified as one of the key elements of external assistance or foreign aids required to augment domestic resources necessary for the enhancement of economic development. In addition, Essien and Onwioduokit (1998) opines that the work of early development economist including Higgins (1959), Lewis (1954) Eshag (1983) Doma. (1957) agreed that the transfer of foreign resources to less developed countries will help to transform their economics characterized by low or zero growth rate, into economies capable of adequate and sustainable growth. From this point, foreign resources to developing countries are not only important but necessary. External debt is desirable because it serves to supplement

domestic resource gaps with positive impact on growth and development. The point that external debt has negative impact of the economy stem from the fact that at certain level, debt accumulation becomes a burden and will no longer stimulate economic growth (Elbadawi, Ndubu and Ndungu, 1996).

B. Theoretical framework:

Debt over Hang theory: This theory was propounded by Krugman (1982) who explained that debt overhang as one whereby the expected repayment amount of debt exceeds the actual amount at which it was contracted. Myer (1977) presented debt overhang as excessive debt that inhibits investment, arising from the fact the benefits derived by the firm using high risky financing accrue largely to existing debt holders instead of shareholders. This theory is built on the principle that if the level of debt will surpass the country's ability to repay with some probability in the future, estimated debt service is expected to be a growing function of the country's output level. Therefore some of the returns obtained through investing in the domestic economy are efficiently taxed away by current foreign creditors and the investment made by domestic and new foreign investors is not encouraged.

Dual Gap Theory: This theory was propounded by Chenery (1966) who postulates that economic growth depends on investment and that is a function of savings. Omoruyi (2005) stated most economies have experienced a shortfall in trying to bridge the gap between the level of savings and investment and have resorted to external borrowing in order to fill this gap. Ayadi and Ayadi (2008) argue that acquisition of external fund depends on the relationship between domestic savings, foreign funds, investment and economic growth. The dual gap theory is coined from a national income accounting identity which connotes that excess investment expenditure (investment-saving gap) is equivalent to the surplus of imports over export (foreign exchange gap).

The Linear-Stages of Growth Model: This theory was propounded by W. Restow (1960). It is the model that achieved dominance in this strand of development economics. In the words of Todaro and Smith (2006), Rostow's stages – of- growth model viewed economic development as a linear process, to them, Rostow argued that advanced countries had all passed through a series of stages. He designated the stages as follows: (1) The traditional society (2) The preconditions to take-off (3) The take-off, (4) The drive to maturity, and (5) the age of high mass-consumption. Rostow opined that countries had all passed the stage of take-off and had achieved self-sustaining growth. While developing countries were either in the "preconditions" or "traditional" stage. Rostow went further to say that one of the principal strategies of development necessary for any take-off is the mobilization of domestic and foreign saving in order to generate sufficient investment to accelerate economic growth. The take-off stage according to Rostow could only be reached if three criteria were satisfied. First the country has to increase its investment rate, with investment amounting to no less than 10 percent of the National income. Second the country had to develop one or

more substantial manufacturing sectors with high rate of growth. Third a political, social and institutional framework had to exist or be created to promote the expansion of the new modern sector.

C. Empirical review:

A number of research work have been carried out on the impact of external debt on the economic growth of which few are reviewed in this work.

Ishola (2013), studied the effect of external debt on sustainable economic growth in Nigeria for the period of 1980-2010, using the ordinary least square regression method. The study found that 12.3 percent change in economic growth is as a result of external debt and prime lending rate in Nigeria. It recommends that the government should through an act of its political will address the fundamental causes of external debt and also ensure adequate utilization of borrowed fund to develop the different sectors of the economy so as to enhance the economic growth of the nation.

Olanrewaju, Abubakar and Abu (2015) examined the effect of government debt on economic growth in Nigeria from 1986 – 2013 using the ordinary least square method. The study reveals that the impact of government debt on economic growth over the period under review is insignificant with external debt which has been enormous over the years contributing minimally to real gross domestic product. The findings of the study reveal that, if the course of consistent borrowing is not curbed, the economy will slump further, resorting to surplus budgeting and igniting; increases in unemployment, decrease in total investment, falling reserve, increased exchanged rate and higher inflation. It recommended among others that borrowing should be a last recourse by government to revitalize the economy and if necessary, the loans should be source within the economy so that when the principal and interest on the loans are paid back. It will serve as crowd-in-effect which is turn further accelerates economic activities in the country.

Ibi and Aganyi (2015) in a study of impact of external debt on economic growth in Nigeria, analysed the use of variance decomposition and impulse response from vector auto-regression (VAR) was the econometric technique employed to test whether or not External debt, Ratio of external debt to exports and other economic control variables stimulate economic growth. Based on the two stage data processing, the result reveal that Causation between external debt and economic growth is weak in the Nigerian context and external debt could thus not be used to forecast improvement or slowdown in economic growth in Nigeria.

Ijishar, Feta and Godoo (2016) in the study of the relationship between external debt and economic growth in Nigeria from the period of 1981 – 2014. They used both descriptive and econometric tools in empirically analysing the time series data generated. The findings shows a significant relationship between external debt and economic growth in Nigeria in a long-run. 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 – 2007. Ordinary least square and generalized least square estimation technique were employed, external debt servicing is found to be negatively impacted on Nigeria and South African economy.

Barik (2012) research on the indirect relationship between government debt and economic growth in India for the period of 1981 – 2011. He conducted an econometric analysis with an augmented Solow (1956) Neoclassical growth model and found that there exists an indirect relationship between public debt and economic growth in India. The result of the study reveals that public debt appears positively related to both investment and output growth and thereby has an indirect impact on economic growth through its positive effect on investment.

Udoka and Ogege (2012) examined the extent of external debt crisis and its consequences on economic development using data on the Nigerian economy of the period 1970 –2010. They employed error correction modelling frame work with co-integration techniques to test the relationship between per-capita GDP and other macroeconomic variable (foreign reserve, debt stock, investment, debt service payment). The test revealed that politics, instability may reduce the rate of development and other independent variable were responsible for the underdevelopment of the country. They recommended to avoid the crisis of economic development in Nigeria, external debt should be reduced to minimal level.

Udofia and Akpanah (2016) investigated the impact of external debt on economic growth of Nigeria. The issue was empirically examined using co-integration test and the error correction test for Nigeria over the period 1980- 2012. Finding from this study supported that traditional view between external debt and growth. It also found the non-existence of debt overhang problem for Nigeria. It is recommended from the study that development activities in Nigeria be financed through increased export earnings spearheaded by export led by growth strategy as well as investment in human capital as these can be the best alternative to external debt in the long run.

Solomon (2016) investigated the impact of external debt on the Nigeria economy. Data was collected from secondary source while the regression analysis showed that external debt and external debt service have negative relationship with causality exists between external debt and GDP which runs from external debts to GDP. It recommended that external debt should be for largely be for economic reason rather than social or political reasons as this would increase the productivity of the nation.

SulaimanAzeez (2012) in the study of the impact of external debt on economic growth in Nigeria using GDP as the independent variable while ratio of external debt to export, inflation and exchange rate were used as the independent variable, annual time series data covering the period of 1970 – 2010 were used, which were analysed using the ordinary Least Square Technique, ADF, Unit Root Test, Johansen Co-integration test and Error Correction Model (ECM). Results from the study showed that external debt has a positive impact on the Nigerian economy in the long-run.

They recommended that external borrowing should be obtained for economic growth reasons rather than social and political motives.

VII. METHODOLOGY

The scope of this study is limited to examining the impact of Nigeria external debt on its economic growth. The study covers the period of 1981 – 2018 making it one of the most recent works in this area.

This research work was designed to address the objectives and hypothesis. A literature review was used to determine the theoretical basis for research topic and prior research method conducted on various aspects of external debt and economic development.

Econometric model was used in analysing data obtained in the study and the methodology was empirical. Descriptive statistics was also used in analysing the data with the ordinary least square method.

A. Model specification:

In order to examine the impact of Nigeria’s external debt on its economic growth, a sample linear model is built. The model captures the relationship between external debt and economic development in Nigeria. This is expressed as follows:

$$GDP = f(NED)$$

Specified as follows:

$$GDP = a + bNED + \mu$$

Where; a, b > 0

GDP = Gross Domestic Product as a proxy for economic growth.

NED = Nigeria external debt

μ = error term

B. Collection of data:

The data used in this study were collected from the Debt Management Office (DMO) official report, Central Bank of Nigeria (CBN) statistical bulletin and National Bureau of Statistic (NBS) reports for various years covering 1981-2018.

VIII. RESULTS AND DISCUSSION

The hypothesis was tested using the regression model for Gross domestic Product (GDP) and Nigeria External debt (NED) analysis was done using econometric software of STATA 13.

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. *(2 variables, 38 observations pasted into data editor)

. regress gdp ned
    
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Source	SS	df	MS	Number of obs =	38
Model	1.5972e+10	1	1.5972e+10	F(1, 36) =	15.46
Residual	3.7190e+10	36	1.0330e+09	Prob > F =	0.0004
Total	5.3162e+10	37	1.4368e+09	R-squared =	0.3004
				Adj R-squared =	0.2810
				Root MSE =	32141

gdp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
ned	11.16365	2.839144	3.93	0.000	5.405601 16.9217
_cons	10499.17	6742.015	1.56	0.128	-3174.275 24172.61

Source: Author’s estimation using STATA 13, 2019

On the basis of the above result, the regression equation can be written as:

$$GDP = 10499.17 + 11.16365 NED$$

From the result of the analysis, $R^2 = 0.3004 \approx 30.04\%$. This implies that the independent variable, NED included in the model is able to explain 30.04% of variation in the dependent variable. GDP, while the remaining 69.96% is accounted for by disturbance (error) terms which are accommodated in the model specified.

This implies that the independent variable of NED explains low variation in the dependent variable GDP and showed a weak relationship.

Also, in the above, the adjusted R^2 is 0.2810 which is less than R^2 value of 0.3004. This is because it has been adjusted for independent variables, NED in the association with the dependent variable GPD. The coefficient of NED is 11.16365 which implies that a unit increase in NED, the GDP will increase by 11.16365 holding all other factors constant.

Following the analysis of the hypothesis, we discover that $P>/t/$ of NED is 0.0000 and is less than 0.05 at 95% confidence interval, we have sufficient evidence to reject the H_0 and accept H_1 and conclude that Nigeria external debt has a significant impact on its economic development.

Descriptive statistics:

. summarize gdp ned, detail

GDP					
	Percentiles	Smallest			
1%	144.83	144.83			
5%	154.98	154.98			
10%	170.38	163	Obs		38
25%	499.68	170.38	Sum of Wgt.		38
50%	4350.27		Mean		27305.78
		Largest	Std. Dev.		37905.15
75%	44285.56	94144.96			
90%	94144.96	101489.5	Variance		1.44e+09
95%	113711.6	113711.6	Skewness		1.275198
99%	127762.6	127762.6	Kurtosis		3.306792
NED					
	Percentiles	Smallest			
1%	2.33	2.33			
5%	8.82	8.82			
10%	14.81	10.58	Obs		38
25%	298.61	14.81	Sum of Wgt.		38
50%	633.08		Mean		1505.476
		Largest	Std. Dev.		1861.109
75%	2577.37	4478.33			
90%	4478.33	4890.27	Variance		3463726
95%	5787.51	5787.51	Skewness		1.621407
99%	7759.23	7759.23	Kurtosis		5.079102

Source: Authors' estimation using STATA 13, 2019

From the analysis above, we discover that the mean of GDP and NED are 27305.78 and 1505.476 for the period under review. This implies that a GDP above 27305.78 is considered above average and satisfactory while any value below 27305.78 is considered below average and non-satisfactory. NED above 1505.476 is considered above average and non-satisfactory as it indicates that the external debt burden is rising.

The largest amount of GDP for the period under review is 127,762.6 while its smallest is 144.83. On the other hand, the NED has its largest amount as 775.23 and smallest amount as 2.33 for 38 observations. As can be seen from the analysis, both GDP and NED are positively skewed.

IX. CONCLUSION

It is the desire of every government to provide the basic amenities required by its citizens and to foster economic growth and development.

In order to fulfil these desires, the government needs to invest a lot of funds which may not readily be available. This will certainly lead to the government sourcing for funds both internally and externally.

In most situations, the internal (domestic) debt will not be enough and the government always borrows heavily and externally for financing and to foster economic growth and development.

From the analysis of the study, the researcher concludes that Nigeria's external debt has a significant impact on its economic growth.

It is recommended that the Nigerian government should exercise caution in incurring debt and make sure that the external debt is used strictly for capital projects or tied to a particular project that will engender economic development.

The result of the analysis is consistent with the findings of other scholars' researchers with similar interests such as Olanrewaju, Abubakar and Abu (2015) and Ibi and Aganyi (2015).

The study provides additional evidence that external debt has an impact on economic development in Nigeria.

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