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The Effect of External Debt on Economic Growth in Nigeria

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Abstract

This study focused on the effect of external debt on economic growth in Nigeria. It sought to assess the significance of external debt, and to suggest measures that could enhance its effectiveness and economic growth in Nigeria. To achieve the objective of the research, some macroeconomic indicators in the Nigerian economy, using an ex-post facto research design were applied. The data were collected, analyzed and tested using the Ordinary Least Square (OLS) multiple. From the analysis, it was revealed that there is an insignificant relationship between external debt stock and gross domestic product in Nigeria. Furthermore, external debt service cost has a significant impact on gross domestic product in Nigeria. Based on the findings, the study recommended that external debt finance should be channeled to only projects with the highest priority. In doing so, defining the purpose, duration, moratorium requirements and commitments, negotiation fees, etc, including the conditions under which the government can approve and guarantee external loans. Also, one superior method of negotiation should be maintained by the government for varying amortization and fixed interest payment. Also, multi-year rescheduling should be adopted, rather than the year-by-year approach.

Keywords: amortization, moratorium, official development assistance, sustainable debt

1. Introduction

The act of borrowing creates debt. Debt, therefore, refers to the resources of money in use in an organization which is not contributed by its owners and does not in any other way belong to them (Udoka and Ogege, 2012). Public debt can either be domestic or external debt. Domestic debts are those debts incurred within the country, while external debts are those debts incurred outside the shore of the country. External debt as packages that consist of a combination of financial, technical vis-a-vis managerial requirements emanating from outside the country, aimed at supporting economic growth and development and are repayable at determined future date in foreign currency. According to World Bank (2004), it is debt owed by the government to non-residents repayable in terms of foreign currency, food or service. It constitutes a source of financing capital formation of an economy. However, Ayadi & Ayadi (2008) asserted that the amount of capital available in most developing countries treasury is grossly inadequate to meet their economic growth needs, mainly due to their low productivity, low savings and high consumption pattern. Thus, the reported financial inadequacies lead countries to source for supplementary financing (Takon, John, Mbaze-Ebock, Akpan, Asukwo, Awah & Nkamare, 2020).

Empirically, it has been proven that external debt is one major source of aid to developing nations. But the rate at which they borrow depends on the links among foreign and domestic savings, investment and economic growth, so that the borrowing countries can increase their capacity output with the aid of foreign savings (Ijirshar, Fefa & Godoo, 2016). It is required that the borrowing nation should be able to invest the borrowed fund wisely, especially in financing development projects like railway construction, electricity generation plants, road construction and any other major capital project of the economy. However, external debt can only be productive

if it is well managed, by making the rate of return higher than the cost of servicing the debt (John, Orok, Udoka, 2020).

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

Nigeria external debts dated back to pre- independence era when it acquired its first loan of twenty-eight (28) million US dollars from World Bank, to finance the construction of railway. Ayadi and Ayadi (2016) reported that by 1960, the Nigeria's external debt profile had risen to 150 million US dollar. However, the quest for developmental plans and the need to finance the flamboyant lifestyle of government leaders in Nigeria surged up the country's external debt to 1 billion US dollar by 1971. This alarming increase in external debt continued, however, due to fall in oil price in 1978 and sharp decline in the balance of payment (John, Takon, Owui, Obim, Nkamere & Ita, 2022).

Debt Management Office (2000) noted that Nigeria obtained her first jumbo loan of 1 billion US dollar from the International Capital Market (ICM) in 1978, summing the external debt to 2.2 billion US dollars. The states in the country joined in contracting loans from foreign creditors which gave rise to Nigeria external loan of about N17.3 billion in 1986, a situation that compelled the nation to adopt the Structural Adjustment Programme (SAP) in 1986, which was packaged by International Monetary Fund (IMF) as a means to revamping the nation's economy (Ijirshar, Fefa & Godoo, 2016). The jumbo loan of 1987 was supported by the promulgation of Act No. 30 of the 1978 which limited the external loans that the Nigerian government could raise to $5 billion. Nigeria's external debt increased so much due to excess borrowing from international agencies and countries at non-concessional interest rate as a result of the decline in oil earnings from the late 70's and the emergence of high trade arrears due to inability of the country to either easily produce or foot the bills of importation of the needed goods and services (Takon, John, Ononiwu & Mgbado, 2020).

However, Nigeria economic growth and development has been highly discouraging, despite the huge external loan profile before the year 2000. Within the 80s, the country experienced the most economic recession with declining growth rate, hyperinflation, and high unemployment rate, disequilibrium in balance of payment, industrial decadence, poor infrastructure and serious external debt burden. The poverty rate of the country stood at 65% and the country was classified as one of the weakest economies of the world on per capital basis. The issue of Nigeria's public debt became important in recent times, especially, prior to the period of the debt forgiveness because of its magnitude and the amount, which was required to service such debts as well as its attendant possible effects on different operating sectors of the economy especially the banking sector and the growth of the economy at large. In 2005, Nigeria external debt was US$34 billion (an equivalent of N2.7 trillion) of which about $28 billion or 85% was owed to the Paris club of fifteen creditor nations (Emmanuel, 2012).

Although, the government successfully negotiated debt forgiveness and exit from the Paris club and London club of creditors resulting in the fall of external debt from N2.7trillion in 2005 to less than N451.46billion in 2006, there was however a spike in the external loan to N1.03trillion in 2011 andN2.11 trillion by 2015. The federal government's intention to borrow $29.9 billion, would push Nigeria's external debt stock which stood at $11.262 billion as at June 2016 to $41.162 billion after three years when the borrowing plan would have Been fully executed.

In view of the above, Nigeria started to re-accumulate and record upward move in external debt from 2008 in a bid to foster the required economic growth and a support to fiscal deficits (Obim, John & Orok, 2018). The usage of heavy inflow of cash via external debt to double up economic growth and development of the country is rightly in accordance with Keynesian theory of capital accumulation as a catalyst for economic growth. But on the contrary, Campbell (2009) noted that accumulating debt is accumulating risk by increasing claims on future unrealized income. With this, it is paramount to ascertain how far the heavy external debt of the Nigerian government has actually helped to foster economic growth as propelled by Keynesian theory, or has the debt accumulation exposed the country to great danger as expressed by Campbell (2009). Therefore, this study is set to find out the extent of impact of external debt as well as service cost on the economy of Nigeria. Specifically, this study is designed to:

(1) Examine the effect of external debt stock on the growth of the Nigerian economy;

(2) Assess the effect of external debt service cost on the growth of the Nigerian economy.

2. Literature Review and Theoretical Framework

2.1 Theoretical Framework

2.1.1 Debt Overhang Theory

The debt overhang theory is based on the premise that if debt will exceed the country's repayment ability with some probability in the future, expected cost of debt servicing is likely to be an increasing function of the country's output level. Thus, some of the returns from investing in the domestic economy are effectively "taxed away by existing foreign creditors and investment by domestic and new foreign investors is discouraged" (Claessenset, 2016). Under such circumstances, the debtors' country shares only partially increase in output and exports because a fraction of that increase will be used to service the external debt.

This theory implies that debt reduction would lead to increased investment and repayment capacity and as a result, the portion of the debt outstanding becomes more likely to be repaid. When this effect is strong, the debtor is said to be on the "wrong side" of the debt laffer curve. The Debt laffer curve refers to the relationship between the amount of debt repayment and the size of the debt. However, the idea of debt laffer curve also implies that there is a limit at which debt accumulation stimulates growth (Elbadawi, 2014).

In reference to an aid laffer curve, Lensink & White (1999) argue that there is a threshold at which more aid is detrimental to growth. Greene and Khan (1990) assert that foreign direct investment is now negligible in heavily indebted countries and future prospects are worse. Fiscal deficits have led to rampant inflation thus, undermining savings incentive and more reliance on foreign funds. The scope of debt overhang is much wider that effect of debt do not only affect investment in physical capital but any activity that involves incurring cost upfront for the sake of increased output in the future. Such activities include investment in human capital (in terms of education and health) and in technology acquisition whose effect on growth may even be stronger over time. How a debt overhang discourages private investment depends on how the government is expected to raise the resources needed to finance external debt service and whether private and public investment are complementary. For example, if a government resorts to inflation tax or to a capital levy, private investment is likely to be discouraged (Udoka, John, & Orok, 2022). This study is anchored on the debt overhang theory.

2.1.2 Dependency Theory

Dependency theory states that the poverty of the countries in the periphery is not only because they are not integrated or fully integrated into the world system, as it is often argued by free market economists, but because of how they are integrated into the system. From this standpoint a common school of thought is the Bourgeoisie scholars, who are of the view that the state of underdevelopment and the constant dependence of less developed countries on developed countries are as a result of their domestic mishaps. They believe this issue can be explained by their lack of close integration, diffusion of capital, low level of technology, poor institutional framework, bad leadership, corruption, mismanagement, etc. (Momoh & Hundeyin, 2009).

The proponents of this school of thought see the underdevelopment and dependency of the third world countries as being internally inflicted rather than externally afflicted. To this school of thought, a way out of the problem is for third world countries to seek foreign assistance in terms of aid, loan, investment, etc, and allow undisrupted operations of the Multinational Corporations (MNCs).

2.2 Nigeria's External Debt Profile

Nigeria's external debt can be traced back to the pre independence period (1958) when about 28 million US dollars were borrowed from World Bank for construction of railways. According to the Debt Management office (2000), this debt level was considered minimal up until 1978, when the first loan popularly called "The Jumbo loan" was raised to the tune of more than $1.0 billion from the International Capital Market. In 1958 through 1977, the need for debt was very low. However, the need for debt arose in 1978 due to the fall in oil prices in 1978, leading to a contraction of external debt. The falling oil prices had a negative influence on the revenue of the government. Correcting difficulties in the balance of payment and financing projects thus necessitated borrowing. The report of the Debt management office (DMO), however states that from 1977, the debt stock incurred by the country has been on a steady increase, rising from $0.763 billion in 1977 to $5.09 billion in 1978 and $8.65 billion in 1980, an increase of over 73.96 per cent.

This subsequently rose to $35.94 billion in 2004. However, Nigeria became better positioned with respect to debt owing to the debt relief in 2006; a period in which it offset a substantial part of its debt but this did not last for too long as debt figures soon started to record an upward trend. Borrowing further increased when state governments were allowed to go into external loan contractual obligations. In 1986, Nigeria had to adopt a World Bank/International Monetary Fund (IMF) sponsored Structural Adjustment Programme (SAP), with a view to revamping the economy and this made the country better-able to service her debt (Ayadi and Ayadi, 2008).

Numerically, Nigeria's external debts stood at US$ 28.0 million (₦19.9 million) in 1958, and 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. 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 (John, J. I. Orok, A. B. & Udoka, C. O., 2020), 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, 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.

However, the 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.

On the other hand, 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 (₦41.9 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.

According to Amaefule (2015), Nigeria's total debt stock as at December 2014 stood at N12.4 Trillion. A major revelation in the public debt figure reveals that the domestic borrowing by the government consistently decreased from N12.589trn in December 2017 to N12.577 trillion in March 2017 and N12.151trn in June 2018 according to the International Monetary Fund (IMF) in 2018. Current figures from the trading economics have revealed that the external debt in Nigeria increased to USD22083.44m in the second quarter of 2018 from USD22071.91m in the first quarter of 2018. External debt in Nigeria averaged USD8486.04m from 2008 through 2018, reaching an all high of USD22083.44m in the second quarter of 2018 and record low of USD3627.5m in the first quarter of 2019.

2.3 Empirical Evidences

Bolanle, Fapetu and Olufemi (2015) analyze the impact of external debt and foreign direct investment on economic growth in Nigeria using error correction model with data spanning 1990 to 2013. Augmented Dickey Fuller test indicates that all the variables are first differenced stationary while Johansen co integration test indicate the presence of at least one co integrating equation among the variables. The short run estimation shows that external debt has a negative impact on economic growth in the short run but statistically insignificant while foreign direct investment has a negative but significant impact on economic growth in Nigeria.

Amassoma (2011) employed the same method over the period 1970 to 2009 and reported that while there is a bidirectional relationship between internal debt and economic growth, there is a unidirectional causality which runs from economic growth to external debt in the country.

Aluko and Arowolo (2010) established a long run cointegrating relationship between external debt, economic growth, and capital accumulation in Nigeria using Johansen cointegration test. The ordinary least square model shows a positive relationship between economic growth and external debt in Nigeria for the period of 1980 to 2012. However, the study fails to estimate short run relationship among the variables despite the fact that the variables are non-stationary and there is a long run convergence among them. The shortcomings of these studies lie in its inability to estimate the short run relationship among the variables.

Ajayi and Oke (2012) also empirically assessed the effect of external debt on economic growth and development in Nigeria using ordinary least square model. Although the study failed to test for the existence of unit root in the variables of study, the findings showed the existence of a positive relationship between external debt and national income. This according to the authors did not conform to the a priori expectation of a negative relationship. This is not unconnected with the failure to test for the existence of unit root in the variables which can lead to spurious regression and result.

Imimole, Imoughele and Okhuese (2014) analyzed the determinants of external debt in Nigeria using time series data covering 1986 to 2010. Terms of trade, openness of the economy, budget deficit, gross domestic product, foreign direct investment, and exchange rate are some determinants of external debt evaluated in the study. The

Johansen cointegration test shows the existence of at least two co integrating relationship among the variables in the long run and the error correction model shows that exchange rate, gross domestic product, and external debt services are significant determinant of external debt in Nigeria.

On the contrary, the analysis by Obademi (2012) of the long run impact of public debt on economic growth in Nigeria using time series data spanning 1975 to 2005 however shows that external debt has a positive impact on economic growth in the short run while it negatively impacts on economic growth in the long run.

Ezenwa (2012) using Engle Granger cointegration test and ordinary classical regression model to estimate the short run dynamics from 1981 to 2010 on real gross domestic product, external debt service, government expenditure, and average interest rate. The study established an inverse relationship between external debt stock and economic growth while it established a positive relationship between external debt service and economic growth.

Idris (2014) found a unidirectional causality runs from economic growth to external debt implying that the level of growth in the country necessitates more debt in his research which employed a vector error correction model to estimate the short run relationship between external debt and economic growth in Nigeria between the year 1980 and 2013. Specifically, external debt negatively impacts on economic growth in the short run while external debt positively impacts on economic growth in the long run.

To assess the impact of external debt on Nigeria's economic growth, we formulate model of external debt indices and economic performance. Thus, the functional as well as the econometric form of this model is given as;

GDP = f (EDS, EDSC)

Where

GDP = Gross Domestic Product

EDS = External Debt Stock

EDSC = External Debt Service Cost

The ordinary least square regression model based on the above function is;

$GDP = a_0 + b_1EDS + b_2EDSC + u$

3. Data Analysis

The regression results of the effect of external debt on economic growth in Nigeria.

Dependent Variable: LGDP

Table 1.

Variable	Coefficient	Std Error	T-statistic	Probability
C	2.021707	0.212572	9.510698	0.0000
LEDSC	7.186164	1.738707	4.133050	0.0002
LEDS	6.002535	5.581069	1.075517	0.0027
R-squared	0.979262			
Adj. R-squared	0.966819			
SER	317074.8			
F-stat	78.70179			
DW stat	1.668051			

From the above result, it could be deduced that if all the independent variables are held constant, the Nigerian economy will stand at 2.021707. Again, the result showed that all external debt indicators have positive relationship with the Nigerian economy as the parameters entered the model with positive sign. Implying that a one per cent increase in external debt service cost and external debt stock resulted in 4.133050 and 1.075517 respectively in the growth of the economy.

The goodness of fit of the model is indicated by the adjusted R^2 value of 0.966819 or 96.6 per cent, indicating that the model fits the data well. The total variation in the observed behavior of the Nigerian economy is jointly predicted by the variation in external debt stock and external debt service cost up to 96.6 per cent, the remaining 3.4 per cent is accounted for by the stochastic error term.

The overall significance of the model was also tested using the ANOVA or F-Statistic. Here, the high significance of the F-Statistic value of 78.70179 confirms that the high predictability of the model did not occur by chance; it actually confirmed that the model fitted the data well. We also tested for the presence of auto correlation in the residual of the model, since the calculated DW value of 1.668051 does not lies within 4-dw, at 5% level of significance, we conclude that the model is free from the correlation of its residual.

4. Test of Hypotheses

In order to test the hypotheses, the following decision rule is specified.

Decision rule:

The decision rule is to reject the hypothesis if the t-calculated is > t-table, and accept the null hypothesis if the t-calculated is < t- table.

5. Result of Hypothesis One

T-calculated for EDS = 1.075517

T-critical = 2.048

Based on these results and the decision rule, the null hypothesis was upheld and the alternate was rejected. It was concluded that there is no significant relationship between external debt stock and gross domestic product in Nigeria.

6. Result of Hypothesis Two

T-calculated for EDSC = 4.133050

T-critical = 2.048

Based on these results and the decision rule, the null hypothesis was rejected and the alternate was upheld. It was concluded that there is a significant relationship between external debt service cost and gross domestic product in Nigeria.

The study empirically examined the effect of external debt on economic growth in Nigeria. Based on the analysis of the results, the study revealed that insignificant relationship exists between external debt stock and economic growth. This position was confirmed by Emmanuel (2012), who asserted that, in spite of the critical role played by external debt in a country's overall development strategy, an uneven and erratic debt to repayments would hinder such developmental strategies. Excessive and an uneven debt repayment exerts substantial effect on the availability of resources to meet the developmental needs of the country, thus, high external debt accompanied with the servicing of the debt will reduce gross domestic product in the country.

The study also revealed that external debt service cost has a significant effect on economic growth. This by implication indicates that a favourable repayment of debt owed by the country will permit the nation to channel her remaining resources to economic productive activities, thus leading to growth in the Nigeria economy. This finding is in line with the view of Ayadi and Ayadi (2008) that efficient external debt servicing contributes positively and significantly to the development and growth of the Nigeria economy.

7. Conclusion

The basic goal of this study was the assessment of external debt and its implications on the growth of the Nigerian economy. Findings from the study revealed that the variables for external debt management employed have both obvious and high effect on the growth of the economy, proxied by GDP in Nigeria. The indication for this was the high coefficient of multiple determination and the individual student's test values in the model specified.

The coefficient of determination and the adjusted R-squared revealed that the equations are suitable and appropriate for making core economic decisions/decisions. Findings from the study revealed that Nigerian debt stocks impact the growth of the economy insignificantly, as such, the need for critical policies regarding debt variables to focus on economic growth sustainability.

8. Recommendations

In view of the above summary of findings, the following are recommended.

(1) External debt finance should be channeled to only projects with the highest priority. In doing so, defining the purpose, duration, moratorium requirements and commitments, negotiation fees, etc, including the conditions under which the government can approve and guarantee external loans.

(2) One superior method of negotiation should be maintained by the government for varying amortization and fixed interest payment. Also, multi-year rescheduling should be adopted, rather than the year-by-year approach.

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