EXTERNAL DEBT FINANCING AND PUBLIC CAPITAL INVESTMENT IN NIGERIA: A CRITICAL EVALUATION

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Abstract. This study considers the consequences of external loan on capital investment in Nigeria. Data for the study have been collected from the World Bank and Central Bank of Nigeria Statistical Bulletin, 2018 edition. The variables on which data are sourced include government capital expenditure, external debt accumulation, debt servicing cost, inflation rate, and exchange rate. Government capital expenditure is the dependent variable, while external debt accumulation and debt servicing cost are the key independent variables. Inflation and exchange rates are used as the moderating variables. The scope of the study covers the period from 1996 to 2018 and the data are analysed using the ordinary least squares multiple regression method. The regression results indicate that external debt has a significant negative impact on capital investment while debt servicing cost has a strong and significant positive effect on capital investment. Under this circumstance, the controlling variables are not significant in influencing capital investment. Hence, the study suggests more focus on profitable capital investments if external borrowing must be embarked upon. The need for the development of untapped natural resources, establishment of industries and revival of abandoned industries to boost debt repayment has been emphasized. The study also strongly recommends that the existing governments (state and federal) should endeavour to complete capital projects of past administrations in order to drive the economy and to avoid wastage of financial resources including the borrowed funds.

Keywords: *Capital investment, Debt servicing, External debt, Exchange rate, Inflation rate*

JEL Codes: E22, E31, E62, F31, G31, H63, P24.

INTRODUCTION

External debt is both useful and harmful to an emerging economy (Shahzad, Zia, Ahmed, Fareed & Zulfiqar, 2014). However, if it is used for a lucrative public capital investment and infrastructural provisions, it becomes very beneficial to a developing country. Borrowing for economic development and execution of capital projects is common among unindustrialized countries. Foreign loans are usually acquired to finance public investments required to unlock economic growth opportunities of a nation (Mahmoud, 2015).

Shehu and Aliyu (2014) opine that countries borrow for macroeconomic reasons, which involves financing of capital investment, higher consumption and improvement of budget deficit. Thus, it is imperative for emerging countries to apply the external loans to financing of developmental projects such as schools,

road and railway constructions, provision of electricity generating plants and every other capital investment capable of developing the debtor country (Odubuasi, Uzoka & Anichebe, 2018). Therefore, in order to achieve economic growth, most developing countries depend on external borrowing, which requires fixed repayment irrespective of the actual returns on the funds invested (Abuzaid, 2011).

Similarly, if a country invests a borrowed fund uneconomically or subjects it to unanticipated problems, payment of the agreed service cost will certainly be a difficult task (Abuzaid, 2011). Nigeria, like other unindustrialized countries, suffers from several economic challenges emanating from insufficient financial resources due to collapse of national industries, constant budget deficit, low volume of Nigerian exports, persistent balance of payment deficit due to increasing imports of capital and consumer goods among others. The situation has led to external debt accumulation and high cost of debt servicing. Umoru & Erunke (2016) decried that 80% of Nigeria's revenue is unavoidably used to service public debt which has become a regular phenomenon. Public borrowing in Nigeria became the order of the day for subsequent governments after the administration of the former President Olusegun Obasanjo, who made effort to achieve debt cancellation and reduction from the Paris Club. During the administration of the former President Olesegun Obasanjo, the country witnessed external debt reduction from NGN 4 890 29 billion in 2004 to NGN 438 89 billion in 2007, while the debt servicing cost reduced from NGN 382 5 billion in 2004 to NGN 213 73 billion in 2007 (CBN, 2018). The rapid increase in external debt up to the magnitude of NGN 7 759 20 billion as well as the debt servicing cost of NGN 2 161 37 billion, all in 2018, is indeed an issue of concern (CBN, 2018). The level of external debt in Nigeria as it stands currently does not promise a good future for the upcoming generations if no serious remedial step is taken to either pay it off or reschedule it for the betterment of the younger generations.

The goal of this study is to determine the effect of external debt and debt servicing cost on capital investment, being the original aim of the government for embarking on external borrowing. Several studies reviewed in this work focused on the impact of external debt on economic growth. However, this study wishes to empirically examine the effect of external borrowing on government capital investment in Nigeria.

The principal goal of this study is to examine the effect of external debt and debt servicing cost on the government capital investment in Nigeria. The study also pursues the following detailed objectives:

1. To determine the extent to which external debt affects the government capital investment;
2. To evaluate the effect of debt servicing cost on the government capital investment;
3. To assess the influence of inflation rate on the government capital investment;
4. To investigate the impact of exchange rate on the government capital investment.

The **hypotheses** of the study are:

Ho$_1$: External debt does not have a significant influence on the government capital investment.

Ho$_2$: Debt servicing cost does not have a significant effect on the government capital investment.

Ho$_3$: Inflation rate does not have a significant effect on the government capital investment.

Ho$_4$: Exchange rate does not significantly affect the government capital investment.

1. LITERATURE REVIEW

1.1. Conceptual framework

The response and explanatory variables used in this study are shown in Figure 1 below.
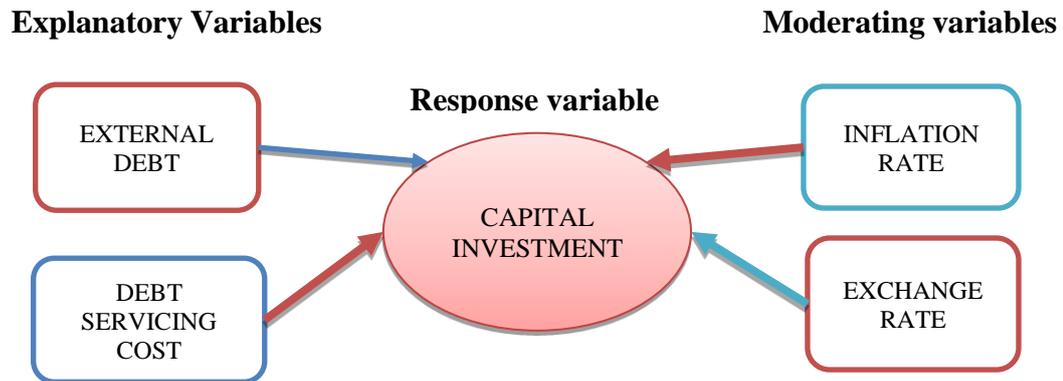

Fig. 1. Conceptual framework (Author's desk research, 2019).

1.1.1 Concept of external debt and capital investment

External loans make new money available for a country to invest in provision of public infrastructure such as schools, hospitals, roads, dams, railways, power stations among others. Proper use of external debt leads to some benefits to an economy. For instance, acquisition of external loans provides an opportunity for a country to make capital investments such as purchase of advanced equipment and modernized technologies which are necessary for efficient production of goods and services. Such infrastructures and developmental projects in turn create a lot of opportunities for employment. Thus, the impact of external debt on economic growth can either be positive or negative depending on whether the debt is efficiently utilized or not. If properly utilized, external debt acts as a lubricant in the economy by providing liquid capital for investment, facilitating employment creation and increasing national output for domestic use as well as for export (Munzara, 2015). According to Tchereni, Sekhampu and Ndovi (2013), external loan helps eliminate economic blockage allowing utilization of all resources to full capacity, which in turn results to sustainable economic development.

1.1.2 Concept of debt servicing and capital investment

Krugman (1988) asserts that debt servicing obligations cause distortions in an economy and hence discourage investment and economic growth. Eaton (1993) argues that external debt is a complement to domestic savings and investment. Opponents of foreign debt contend that external debt depresses capital investment in two ways: through both an impediment consequence and a crowding out influence. Panth *et al.* (2006) claim that public investment is crowded out by debt servicing, thereby adversely affecting productivity growth. This argument is supported by Fosu (2010), who contends that constraining debt servicing would shift public expenditure away from important social services such as healthcare and education. The government would be forced to increase internal borrowing in order to meet external debt servicing obligations. In the process government will hog borrowings on the domestic market thereby depriving private investors of the much needed funds for investment. Increased borrowing on the domestic market also has the effect of pushing interest rates up making the cost of borrowing for investment prohibitive. However, Ijirshar, Joseph & Godoo (2016) noted that 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.

1.2. Theoretical review
1.2.1 Dual Gap Theory

Dual gap theory states that development is dependent on capital investment, which emanates from domestic savings that is insufficient in achieving the needed development of a nation. Based on this premise, the government of a developing nation seeks to acquire some form of external loans that are necessary to augment the existing domestic savings in order to be able to invest adequately in infrastructure and other developmental projects. In other words, capital projects financing is not a domestic affair, it requires external loans to be able to meet the required financial obligations for their construction, be it a dam, road and railway constructions, hospitals, schools, power stations among others.

Dual gap theory specifies that there should be excess of import over export (i.e. M>E). That is, Investment – Savings = Import – Export (I – S = M – E). In the national income accounting, surplus of investment over domestic saving is equal to surplus of import over export. Income = Consumption + Import + Savings; while Output = Consumption + Export + Investment Income. This is the basis for dual gap analysis; it indicates that savings investment gap exists when domestic saving is less than the required level necessary to achieve the target growth rate. In a similar vein, if the maximum import requirement necessary to realize the growth target is larger than the maximum possible level of export, then there is an export- import exchange gap (Adedoyin, Babalola, Otekunri & Adeoti, 2016).

1.2.2 Crowding-out effect theory

The weight of debt service on the government decreases public expenditure, including expenditure on social investments such as education and healthcare,

which are vital for economic growth. Furthermore, weighty debt obligation suggests that the government short-term revenue must be used to service the debt, thereby crowding out public investment into the economy (Serieux & Yiagadeesen, 2001). Reduction in public investment can lead to a decrease in private investment, since some private investments and public investments are complementary (Diaz-Alejandro, 1981; Taylor, 1983). Dependence on external loan acquisition is not only thought wise on the grounds that extreme domestic borrowing results in financial precariousness and crowding out the private sector (Panizza, Sturzenegger & Zettelmeyer, 2010), but also, as contended by Todaro and Smith (2006), it is necessary for unindustrialized nations in their initial phases of development to borrow externally, since domestic savings at that stage could be insufficient for the achievement of the needed development.

1.2.3 Debt overhang hypothesis

Krugman (1988) defines debt overhang as a circumstance in which the estimated refund on foreign debt falls short of the predetermined value of the debt, while Borensztein (1990) states that debt overhang is a scenario where the debtor country benefits very little from the return to any additional investment because of the debt service obligations. According to Myers (1977), debt overhang is a situation where a firm has excess debt such that its business expansion through investment is inhibited and the benefit that would have accrued to the shareholders will rather go to the debenture holders and other creditors. Debt overhang is an incident where considerable resources of a nation are used for debt servicing so that it suppresses the economic growth due to its weight on the domestic production (Udeh, Ugwu & Onwuka, 2016). Debt overhang is also observed when a country's level of debt is bigger than its financial capability to keep to the debt terms and agreement which involves debt servicing and repayment arrangement. This theory is established on the principle that if the level of debt exceeds the country's capacity to refund with some imminent likelihood, expected debt service is anticipated to be an increasing function of the country's economic growth level (Adedoyin *et al.*, 2016).

1.3. Empirical review
1.3.1 Review of foreign studies

Abuzaid (2011) used two equations to analyse the impact of external debt on economic growth and investment in Egypt, Morocco and Tunisia from 1982 to 2005. The results of the study indicated that external debt influenced investment significantly and positively. Thus, instead of depression, economic growth was enhanced through the progress attainment in government investments using external loans. Georgiev (2012) applied descriptive statistics and panel data regressions to assess the impact of public debt on economic growth, capital investments and economic advancement in 17 European countries from 1980 to 2012. The study revealed that increase in public debt resulted in substantial rise of debt servicing cost. Thus, economic growth was depressed due to decrease in investment. The study concluded that public debt leads to high repayment costs,

high interest rates and high rate of uncertainty which invariably reduce government capital investments. This finding was contrary to the result of Abuzaid (2011), who established that external debt improved government investment which in turn led to economic growth achievement.

Dinca and Dinca (2013) investigated the relationship between public debt and GDP growth rate in five former communist bloc countries including Slovakia, Bulgaria, Romania, Hungary and the Czech Republic. The study covered a period from 1996–2010 and focused on determining the returning point of the public debt. The findings revealed that public debt negatively influenced economic growth in all the five countries when it exceeded 44.42 % of GDP. Ejigayehu (2013) examined the effect of external debt on economic growth of highly indebted poor African countries through the debt overhang and debt crowding out effect. The study selected 8 countries out of 26 African countries and covered a period from 1991 to 2010. The countries investigated include Mali, Ethiopia, Senegal, Benin, Madagascar, Tanzania, Uganda and Mozambique. The results of the study revealed that external debt affected economic growth through the debt crowding out effect and not by debt overhang.

Tchereni, Sekhampu, and Ndovi (2013) studied the impact of foreign debt on economic growth in Malawi using time series data that covered a period from 1975 to 2003 and were sourced from the Reserve Bank of Malawi, the IMF and the National Statistical Office. The dependent variable was the level of economic growth in Malawi while the main independent variable was the foreign debt. The other variables the study considered were the inflation rate, exchange rate, the lending rate, private and public investment. The study found a statistical insignificant and negative relationship between foreign debt and economic growth, but the relationship between inflation and economic growth in Malawi was a positive one. The study recommended better incentives for domestic manufacturers whose exports could reduce the country's reliance on borrowing.

Panizza and Presbitero (2014) applied variable approach instrument to determine whether public debt had a causal effect on economic growth in some selected Organization for Economic Co-operation and Development (OECD) countries. There was no causal effect found but the results revealed that public debt had a causal negative relationship with economic growth. Shahzad *et al.* (2014) examined the impact of external debt on economic growth of Pakistan using the data that covered a period from 1980 to 2013. The findings revealed that external debt had a significant negative impact on GDP. The study suggested that Pakistan should seek debt forgiveness simultaneously giving room for FDI inflows, although not excessive not to hurt the economy.

Zaman and Arslan (2014) used ordinary least squares regression technique to assess the role of external debt in determining economic growth in Pakistan for 39 years. The study made use of GDP as proxy for economic growth while economic debt was measured by external debt stock in addition to other control variables, which include gross domestic saving and gross capital formation. The regression results of the study revealed that external debt stock and gross capital formation had positive effects on GDP while domestic saving had insignificant impact on Pakistan GDP. Zouhaier and Fatma (2014) studied the effect of debt on economic growth of

19 developing countries from 1990 to 2011 using the dynamic panel data model. The study found that total external debt to GDP and external debt as a percentage of GNI had a negative effect on the economic growth. The findings also revealed that the external debt had a negative effect on investment in the 19 countries.

AL-Refai (2015) investigated the impact of debt on the economic growth of Jordan for 1990 to 2013. The study applied Cobb-Douglas production function and the ordinary least squares method to empirically establish the relationship between debt and economic growth. The findings indicated that external debt and labour impacted negatively on Jordan's economic growth while domestic debt and gross fixed capital formation had a significant positive effect on the economic growth of Jordan. Eberhardt and Presbitero (2015) examined the long-term association between public debt and economic growth using panel data of some selected countries using linear and non-linear specifications. The authors based the analysis of the study on the theoretical arguments and data considerations in modelling the debt-growth relationship as being heterogeneous across countries. Thus, the study found evidence of a negative relationship between public debt and long-term growth across countries. Halima (2015) carried out a research on the effect of external public debt on the economic growth in Kenya, Rwanda, Tanzania and Uganda using fixed effect and random effects model estimation methods and panel data spanning from 1981 to 2014. The results revealed that external debt had a negative effect on the economic growth in the four East African Countries. The findings further revealed that domestic debt and macroeconomic factors such as inflation rate, real interest rate and exchange rate were insignificant in explaining economic growth while capital stock positively influenced economic growth. The study discouraged depreciation of local currencies but suggested an equilibrium between foreign borrowing and domestic loans.

Mahmoud (2015) employed ordinary least squares technique to investigate the impact of external debt on economic growth of Mauritania. The study covered a period of 30 years, using the data spanning from 1975 to 2005, which were collected from the World Development Indicators and International Monetary Fund. The dependent variable used was the GDP while the external debt and debt servicing were the explanatory variables. The regression results revealed the existence of a positive relationship between GDP and external debt while a negative correlation was found between GDP and debt servicing. Munzara (2015) studied the influence of foreign debt on the economic growth of Zimbabwe from 1980 to 2013 using ordinary least squares regression. The control variables the study applied included capital investment, labour force and trade openness. The results indicated that external debt and trade openness impacted negatively on the economic growth while capital investment and labour force had a positive effect on Zimbabwe's economic growth. The study discouraged reliance on foreign borrowing but recommended a conducive environment that could attract foreign direct investment.

Senadza, Fiagbe and Quartey (2017) investigated the effect of external debt on economic growth in 39 Sub-Saharan Africa (SSA) countries from 1990 to 2013. The study employed system generalized methods of moment estimation method and found that external debt exerted negative influence on the economic growth of the 39 SSA countries. AL-Kharusi and Mbah (2018) employed autoregressive

distributed lag co-integration approach and error correction mechanism to investigate the short-run effect of external debt on the economic growth. The study made use of time series data ranging from 1990 to 2015 and were collected from the World Bank and the Central Bank of Oman. The findings indicated a significant negative influence of external debt on the economic growth of Oman. The study further revealed that fixed capital had a significant positive impact on economic growth.

1.3.2 Review of domestic studies

Shehu and Aliyu (2014) evaluated the contribution of external debt to the economic growth of Nigeria using the ordinary least squares method and data covering the period from 1970 to 2010. The study found that external debt contributed positively to the economic growth of Nigeria. Babatunde, Sani and Sani (2016) used quarterly data from 2000 to 2014 to determine the optimum public debt threshold for Nigeria's economic growth. The study found a threshold level of 73.70 percent for public debt as a percentage of GDP, while the external and domestic debts were projected at 49.4 and 30.9 percent, respectively. The findings implied that if the accumulated debt exceeded the expected threshold levels, it would have an unfavourable influence on economic growth. Olasode and Babatunde (2016) employed autoregressive distributed lag and ordinary least squares method to assess the impact of external debt on the economic growth of Nigeria from 1984 to 2012. The study found a dual behaviour whereby external debt impacted positively on the economic growth at lag 1, while the impact on growth in the most current year under study was negative.

Odubuasi *et al*. (2018) extended the study on the impact of external debt on the economic growth of Nigeria from 1981 to 2017 using Augmented Dickey Fuller (ADF), Granger Causality and Error Correction Model. The findings revealed that external debt and capital expenditure had positive and significant effect on economic growth, while cost of servicing debt did not have any impact on economic growth. The study among others recommended the use of external loans for capital investment in order to promote Nigeria's economic growth. Orji (2018) assessed the effect of external debt on the economic growth of Nigeria using the data spanning from 1995 to 2017 and ordinary least square technique for analysis. The results revealed that foreign debt stock and debt servicing had insignificant influence on GDP, although the effects were positive and negative respectively. The study confirmed that inflation rate used as a control variable had a positive and significant impact on GDP.

2. METHODOLOGY

2.1. Research design and sources of data collection

This study made use of causal research design, which helps evaluate the effect of one variable on another (Kothari, 2004). Causal research design agrees with this study, which seeks to establish the effect of external debt on the government capital investment in Nigeria. Here, the econometric method adopted for analysis is the

ordinary least squares (OLS) multiple regression technique due to its simplicity and clarity of analysis. The study made use of the secondary form of data spanning from 1996 to 2018. All the data employed in this study were obtained from the Central Bank of Nigeria Statistical Bulletin, 2018 edition, and the World Bank. Due to the difference in the values, all the data were expressed in logarithm form in order to bring the data values to the same base.

2.2. Model Specification

The functional and econometric relationship between the response variable and the explanatory variables are seen in the equation below:

$$CEX = f(EXD, DTS, INF, XGR), \qquad (1)$$

$$LOGCEX = \beta_0 + \beta_1 LOGEXD + \beta_2 LOGDTS + \beta_3 LOGINF + \beta_4 LOGXGR + \mu, \quad (2)$$

where:
CEX = Capital investment;
EXD = External debt;
DTS = Debt servicing;
INF = Inflation rate;
XGR = Exchange rate;
β_0 = Constant; β_1–β_4 = Regression coefficients; μ = Error term.
A priori, we expect: $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$.

3. DATA ANALYSIS AND INTERPRETATION

3.1. Trend analysis
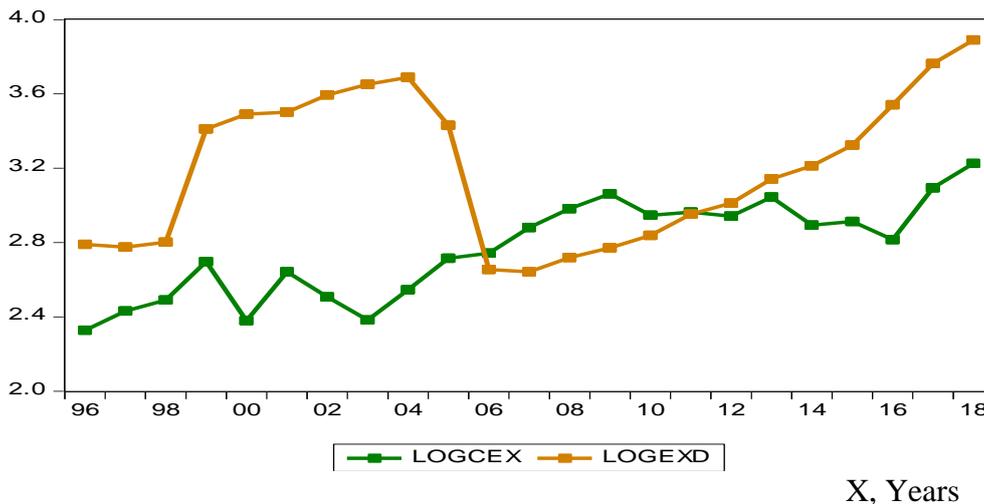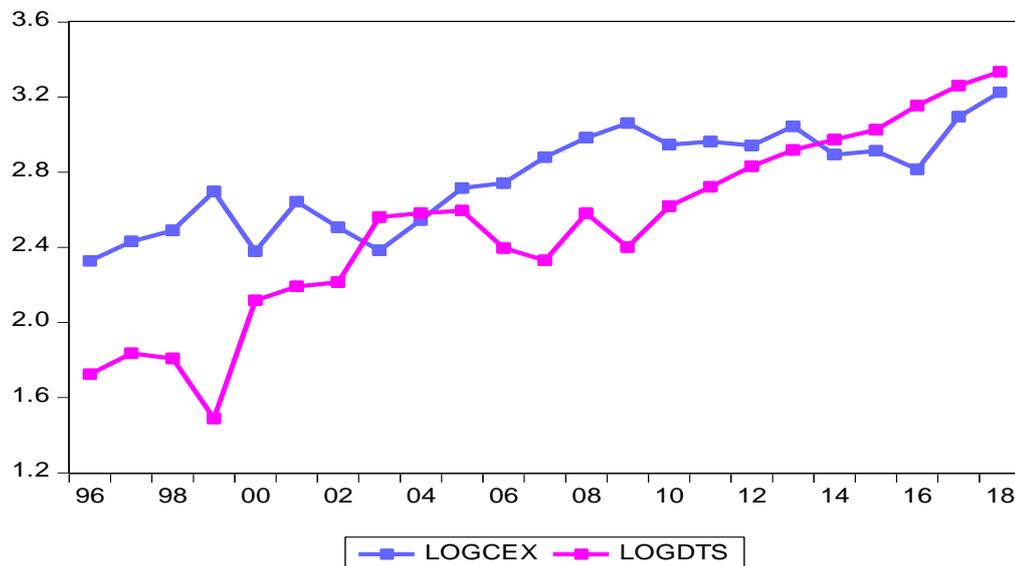
Y NGN, Billions

X, Years

Fig. 2. Data trends from 1996 to 2018 (Central Bank of Nigeria Statistical Bulletin, 2018).

Figure 2 depicts the trend of government capital investment and external debt accumulation from 1996 to 2018. From the graph in Figure 2, external debt grew higher than investment on capital projects from 1996 to 2006 and again from 2012 to 2018. It was from 2007 to 2010 that the capital investment rose a little higher than the external debt level. In other words, the external loan acquired for the purpose of developing the economy through investment in capital projects has not been exclusively utilized for the same purpose it was obtained for. Thus, this trend investigation reveals that there has been fund diversion to other matters that are not economically important. Olasode and Babatunde (2016) put it that the quest and need to finance a flamboyant lifestyle of the government leaders in Nigeria have led to external debt accumulation. This debt accumulation is not only for extravagant lifestyle of the leaders, but also for political intentions, because the quest to remain in office leads to external borrowing which is used for political affairs. Sulaiman and Azeez (2012) recommend that external debt should be acquired purely for economic growth purposes and not for political reasons. In Nigeria, this principle is not followed, as a result, instead of acquiring external loans for economic growth reasons, they are more often obtained for political aims. Figure 2 highlights the true position of the state of external loans and the capital investments in the country. What gives cause for worry here is that there is no commensurate reflection of the extent of the external borrowing on the capital investment in Nigeria.

Y NGN, Billions

X, Years

Fig. 3. Data trends from 1996 to 2018 (Central Bank of Nigeria Statistical Bulletin, 2018).

Figure 3 shows that debt servicing has less effect on capital investment, however there was a slight increase in debt servicing cost over capital investment from 2015 to 2018.

Figure 4 provides the comparative trend analysis of the three variables. Out of the three, external debt accumulated rose higher than capital investment and debt servicing cost in 1996–2006 and 2012–2018.
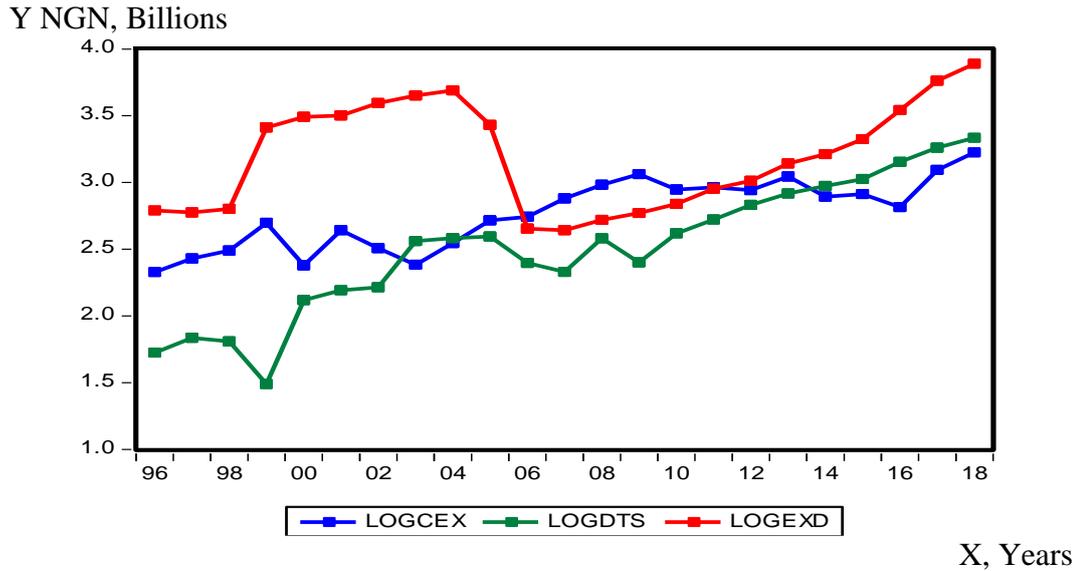
Y NGN, Billions

X, Years

Fig. 4. Data trends from 1996 to 2018 (Central Bank of Nigeria Statistical Bulletin, 2018).
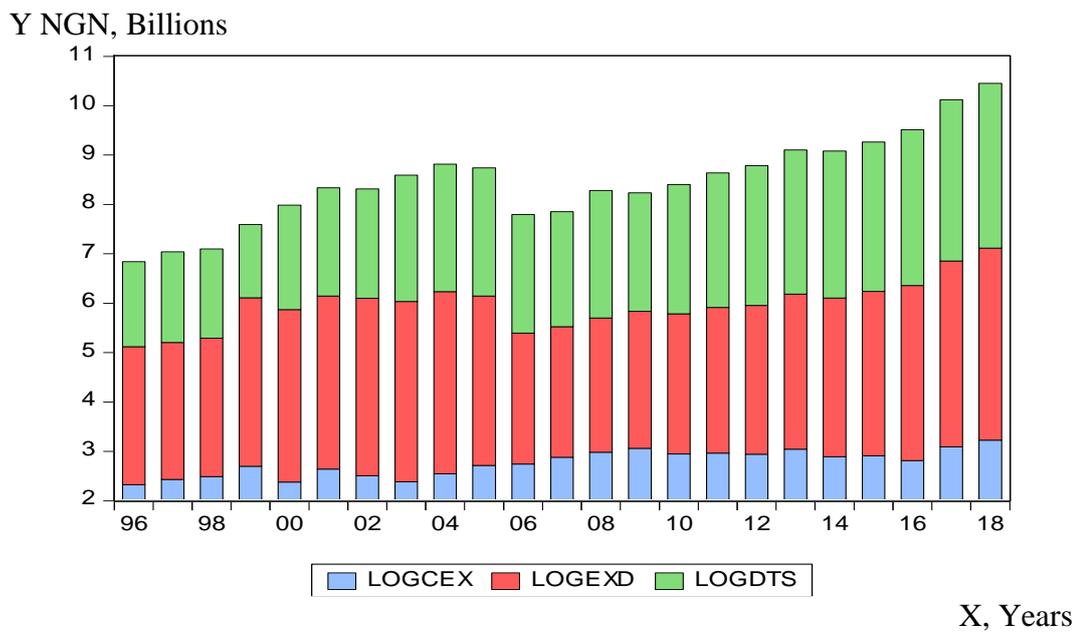
Y NGN, Billions

X, Years

Fig. 5. Data trends from 1996 to 2018 (Central Bank of Nigeria Statistical Bulletin, 2018).

The graphical representation of the size of external debt, debt servicing cost and capital investment is shown in Figure 5. A closer observation shows that the country is really living in debt. The size of external debt and debt servicing far outweigh the size of capital investment. No wonder, it has been opined that debt accumulation and servicing discourage capital investment having adverse effect on productivity (Krugman, 1988; Panth *et al*., 2006).

Table 1. Summary of statistical indicators (Author's computation, 2019)

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate	Durbin-Watson
1	0.809	0.654	0.577	0.16996946	1.755

Table 1 is the model summary of the regression results. From Table 1, the correlation (*R*) is 80.9 %, which indicates the existence of a positive and strong relationship between capital investment and the explanatory variables. The coefficient of determination (*R* Square) has the value of 65.4 %, which implies that about 34.6 % variation in capital investment in Nigeria could not be explained by the independent variables used in this study. The Durbin-Watson of 1.75 is within the acceptable limit.

Table 2. ANOVA test of results (Author's computation, 2019)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.982	4	0.246	8.499	0.000
	Residual	0.520	18	0.029	–	–
	Total	1.502	22	–	–	–

Table 2 provides the result for F-statistic which is 8.499 with the *p*-value of $0.000 < 5$ %. This result is statistically significant and implies that the model is appropriate for the study. Similarly, the result shows that the predictor variables collectively influence capital investment significantly.

3.2. Test of hypotheses

From Table 3, the Variance Inflatory Factor (VIF) of each predictor variable is less than 10, which shows the absence of multicollinearity (Gujarati & Porter, 2009). Multicollinearity is a situation that occurs when two or more independent variables testing the same element are strongly interrelated. Thus, there is no multicollinearity found in this study as the VIF of each independent variable is far below 10 (Gujarati & Porter, 2009).

The hypotheses are tested with the use of t-statistic of each independent variable to show their individual effect on the dependent variable. The significance level for rejection or acceptance of each null hypothesis is 5 %. Therefore, EXD t-statistic is

−2.136 and the *p*-value is 0.047 < 0.05. This result indicates that external debt has a significant negative impact on capital investment (CEX) in Nigeria, and so, Ho_1 is hereby rejected and the alternative accepted. This result supports the findings of numerous scholars (Dinca & Dinca, 2013; Panizza & Presbitero, 2014; Shahzad *et al*., 2014; Zouhaier & Fatima, 2014; AL-Refai, 2015; Eberhardt & Presbitero, 2015; Halima, 2015; Munzara, 2015; Senadza, Fiagbe & Quartey, 2017; AL-Kharusi & Mbah, 2018) that external debt has a significant negative influence on a nation's economic growth and investments. However, this result conflicts with the findings of (Abuzaid, 2011; Shehu & Aliyu, 2014; Zaman & Arslan, 2014; Mahmoud, 2015; Odubuasi *et al.,* 2018).

Table 3. Regression coefficients and correlations (Author's computation, 2019)

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.171	0.729	–	4.349	0.000	–	–
	LOGEXD	−0.245	0.115	−0.377	−2.136	0.047	0.616	1.623
	LOGDTS	0.445	0.079	0.850	5.657	0.000	0.851	1.175
	LOGINF	−0.209	0.230	−0.135	−0.908	0.376	0.868	1.153
	LOGXGR	−0.254	0.264	−0.155	−0.963	0.348	0.737	1.356

Dependent Variable: *LOGCEX*

Similarly, DTS t-statistic is 5.657 while the *p*-value is 0.000 < 0.05. This result implies that debt servicing has a strong significant and positive impact on capital investment in Nigeria, thus, Ho_2 is hereby rejected and the alternative which states otherwise accepted. This result is not consistent with the findings of (Georgieu, 2012; Mahmoud, 2015). INF t-statistic is −0.908 and the *p*-value is 0.376 > 0.05, showing that inflation has an insignificant negative influence on CEX, thus Ho_3 is accepted and the alternative suggestion rejected. XGR t-statistic is −0.963 while the *p*-value is 0.348 > 0.05. This result shows that exchange rate has an insignificant negative impact on CEX, therefore, Ho_4 is accepted and the alternative hypothesis rejected.

CONCLUSION

This study provides statistical evidence that external debt accumulation depresses capital investment even though the debt servicing appears to be favourable. However, inflation and exchange rates were not significant in explaining economic growth through capital investment in this circumstance. Looking at the trend analyses in Figures 2 & 4, external loans in Nigeria would not be compared with the level of capital investment the country could account for, and it is an indication of some uneconomical uses of external loans in Nigeria. The primary goal of obtaining a foreign loan is investment in developmental projects which are capable of industrializing the nation and providing the citizens with job

opportunities as well as enlarging our export capacity. The present challenge is the inability of the leaders to achieve this aim, as a result, the external debt keeps piling up without commensurate capital investment to give the needed returns on investment. Consequently, the government is left with no other option than to painstakingly service the debt with almost 80 % of the nation's revenue (Umoru & Erunke, 2016) without substantial returns from investment as most of the industries are not yet revived to function effectively.

RECOMMENDATIONS

The first and most important suggestion this study makes is that the government should focus on viable capital investments that have high returns that can help pay off external loans in the nearest future in order not to pass debt to the upcoming generations as an inheritance. It is an ill omen for the children to inherit the debt from their parents, it leads to confusion and sometimes generational slavery. External loans should be used to develop the country's untapped natural resources lying fallow in some parts of the country (bitumen, coal, columbite, gold, iron ore, kaolin, limestone, marble, tin, uranium), establish more industries as well as to revive the abandoned industries such as Ajaokuta Steel Company (ASCO), Delta Steel Company (DCL) and Nigerian textile industry among others. In a nutshell, borrowing for political reasons or flamboyant lifestyle of the leaders should be prohibited. Rather, all forms of external borrowing should be for developmental projects capable of creating job opportunities, alleviating poverty and improving the economy generally.

Secondly, the government should borrow with caution. Reckless acquisition of foreign loans, just because the opportunity is there, has an adverse effect on the economy as a whole. When debt accumulates so much that the country can no longer afford to pay, the government will be forced to accept lenders' conditions that will never be in the best interest of the economy and the citizens. Therefore, the study suggests that the government should vigorously pursue debt reduction and stop acquiring more until the present level of debt has reduced considerably.

It is highly imperative for present administrations and subsequent ones both at the state and federal levels of government in Nigeria to see completion of ongoing and existing projects as a priority. It has been a common phenomenon that after borrowing to embark on a capital-intensive projects, the upcoming governments simply overlook them based on an insubstantial excuse that the credit will not be given to their administration. This situation has been ongoing, and the country's resources including the borrowed funds have been tremendously wasted in the process.

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