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EXTERNAL DEBT, FOREIGN PRIVATE INVESTMENT AND ECONOMIC GROWTH

[1]Babade Isaac Tolu, [2]Ayeni Olayemi Selimot and [3]Ikudaisi Olugbenga Lanre
[1,2&3]Department of Business Administration and Management; Rufus Giwa Polytechnic, Owo, Ondo State, Nigeria
tolubabade12@gmail.com

Abstract
This paper cross-examines the rationale behind external debt, foreign private investment and economic growth in Nigeria from 1994-2022. Nigerian policy prescriptions of deficit financing as a way of spurring sustained economic growth and development in Nigeria, especially when such ideology seems to contrast sharply with the realities of dwindling economic growth indices is discussed in the paper. In particular, this study investigates the extent both external debt and domestic debt impact on economic growth in Nigeria. Multiple regression method was adopted while Autoregressive Distributed Lag (ARDL) model was the main technique used in the analysis. The results of the ARDL model demonstrate that external debt (LEXD) and domestic debt (LDD) have a negative impact on LGDP. However, while external debt reveals a significant effect, domestic debt (LDD) has an insignificant impact on LGDP. Thus, the study recommends that government should discontinue the use of external debt to finance budget deficit in the economy, but should look inward through aggressive internal revenue generation as well as embrace economic diversification policies, coupled with a drastic cut down on cost of governance in Nigeria.

Keywords: National debt, Foreign private investment, Government expenditure, National savings, Inflation rate, Economic growth

Introduction

Many developing countries, particularly Nigeria, is found to be wallowing in debt. The external debt problem facing Nigeria has been receiving increasing attention in which adequate solutions are yet to be found. A clear and persistent lesson of the debt crisis has been that adequate debt management is essential if external resources are to be used efficiently. Many developing countries resort to external borrowing to bridge the domestic resource gap in order to accelerate economic development. It then means that any developing country can resort to external borrowing provided that the proceeds are utilized in a productive way that will facilitate the eventual servicing and liquidation of the debt.

In the 1950s, countries were encouraged to borrow abroad and create an environment conducive to foreign investment to boost her economic growth. In the process, little attention was paid to the liabilities side of the current account deficit, which increased the external indebtedness of these countries. As a matter of fact, foreign borrowing can be explained in terms of the technical, managerial and financial requirements necessary to support developmental programs and economic growth. Between 1960s and 1970s, deficit in the current account financed by borrowing abroad was highly favoured as a way of boosting economic growth.

In the light of increasing indebtedness of the less developed countries (LDCs) in general and Nigeria in particular, the question arises as to whether external debt contributes or has any impact on foreign private investment in Nigeria. It is particularly important to investigate the relationship between indebtedness and foreign private investment and indeed economic growth, given the huge amount of foreign exchange earned from oil exports. Also, the huge burden of external debt constitutes a serious obstacle to growth and employment creation, as investment resources have to be used to meet external debt obligations. This, as a result, will hinder the growth of foreign direct investment in Nigeria.

Most of the studies carried out so far in this area have focused on the impact of external debt on foreign direct investment and economic growth both in the developed and less developed countries, but have failed to examine if there is any causal linkage between external debt and foreign private investment over the years. This is a very serious loophole in most of these studies. This study, therefore, aims at examining the causality between external debt and foreign private investment in Nigeria. The study is divided into five sections. Section two takes a cursory look at the empirical literature.

Section three focuses on the methodology where the models to be used for the study are specified while section four interprets the result of the estimated model and section five gives the policy recommendations and conclusions to the study. Nigeria's policymakers, however, have been defending their borrowing practices and explaining their necessity. At the public presentation and breakdown of the 2022 Appropriation Bill in October 2021, the Minister of Finance, Budget and National Planning, Zainab Ahmed, stated that borrowings were instrumental to Nigeria's exit from recession. She submitted that 'considering the considerable growth in Nigeria's debt over the past six years, the question of whether our debt situation is sustainable is more than justified'.

To better understand the origin of Nigeria's debt situation, let us begin by looking at Nigeria's federal budget. The budget reflects the country's projected revenues and expenditures. If revenues are higher than expenditures, the budget is in surplus and if expenditures are higher than revenues, the budget is in deficit. Revenue depends on a number of assumptions, including those about oil prices, oil production levels, the exchange rate, inflation, and contributions from state-owned enterprises. Revenues also determine the level of funds available to finance expenditures. These projected inflows are often classified as oil and non-oil revenues.

Expenditures are typically split into recurrent (all payments for goods and services other than for capital assets) and capital (payments for investments and acquisition of assets). The budget also usually includes key provisions for debt service (repayment of previous loans) and the sinking fund (a provision for future loan repayments).

In 2016, Nigeria's budget had a deficit of N2.22 trillion while the amount earmarked for debt servicing was N1.36 trillion. Even then, there were comments that Nigeria needed to adopt austerity measures and not resort to unrestrained borrowing. The approved 2023 budget shows that the deficit has tripled to N6.38 trillion and that N3.80 trillion will now be spent on servicing existing debt. This growth in debt is not as worrisome as it may seem when we consider some of the macroeconomic challenges that Nigeria has faced in recent years. The Nigerian economy has experienced at least two major shocks since 2016: Nigeria entered a recession because of a crash in oil prices and disruptions to oil production that seriously decreased oil revenue. Revenues fell again in 2020 when the COVID-19 pandemic negatively disrupted oil price benchmarks, global oil production and productivity in other sectors of the global economy. Given that oil remains Nigeria's primary source of revenue, these two critical periods reduced the country's revenues, drove up the fiscal deficit and required significant borrowing.

As reported in CBN (2021), over N360 billion in SUKUK bonds have been used on some road projects including the dualization of Abuja-Abaji-Lokoja road, and the rehabilitation of the Enugu-Port Harcourt dual carriageway. Furthermore, external borrowing has financed the double track standard gauge Lagos-Ibadan rail. The Zungeru Hydropower project and National Electrification Project are also key to increasing the infrastructural stock, which is currently around 25 percent of Nigeria's GDP. Infrastructural investments have a lag time, so the benefits will be reflective in due course.

Empirical Literature

Panagiotis (2020) examined the relationship between public debt and the determinants of economic growth such as private and government consumptions, investment, trade openness, and population growth in Greece through the applications of unit root tests, and auto-regressive distributed lag (ARDL) model. The unit root tests indicated mixed integration of order zero and order one among the variables.

The results of the ARDL model revealed a long-run relationship between variables; and also showed that private and government consumption, investment and trade openness have positive effects on economic growth, while government debt and population growth have negative impact on growth. The study also evaluated the Chow break point effects issue between government debt and economic growth. The results showed that the relationship between debt and growth depends on whether the debt has a structural break or not. Hence, the results revealed that as government debt rises after 2000, the effect on economic growth diminishes rapidly and the growth impacts become negative. The major drawback of this study is that the author failed to report the result of the short-run effects to show the speed of adjustment between the short-run and long run periods.

For works from developing African countries, Waliu, Sallahuddin and Muhammad (2018) undertook a study on the impact of external debt and corruption on economic growth

in five Sub-Saharan African (SSA) nations for the period 1990-2015. The technique adopted for the analysis was Panel Unit Root and Panel Co-integration Tests. With the application of fully modified Ordinary Least Squares (OLS) and dynamic OLS techniques, in addition to panel Granger causality test, the results showed that external debt has a negative impact on gross domestic product, with the Granger causality test revealing a reverse causality between the two variables in the economy. The result further confirms a positive relationship between corruption level and economic growth, implying that with a percent rise in corruption cases in Philippines, the economic growth will as well rise by a unit, contrary to the a priori criterion.

The direction of causality also revealed a uni-directional relationship running from economic growth to corruption. The study recommended that the governments of the selected African nations should, as a matter of urgency, diversify their economies and seek alternative source(s) of capital for investment. While the effort of the above researchers is commendable, it is noticeable that the exclusion of debts service as a key variable from the model may have adversely affected the results generated and the prescriptions made for the economy; thus, motivating the present study.

Methodology

The objective of this study is to examine the causality between foreign private investment and external debt in Nigeria. There is the possibility that the relationship that existed in the theory may not work in the econometric world as a result of some factors, which may not be clearly identified in the theory. This necessitated the need for the use of this method of analysis. This section, therefore, discusses the sources of data and method of analysis for the study.

This study adopts ex-post facto research design and employs multiple regression method with Autoregressive Distributed Lag (ARDL) model and Chow Structural Breakpoint test as the main data analysis technique.

Model Specification

This model specification follows the theoretical frameworks for this. The theory assumed that output or growth (Y) is a function of technology, capital and labour. The equation of the neo-classical growth theory is expressed as:

Y= f (A, K, L)……..…. (1)

Sources of Data and Method of Analysis

The data used for the study were basically secondary in nature. These data were obtained from the publications of the Central Bank of Nigeria Statistical Bulletin (2022). The data for the study were time series data covering the period 1994 to 2022. Data were collected on the variables of interest mainly Foreign Private Investment (FPI) and External Debt (ED).

Where, Y is the aggregate output, A is the number based on the current state of technology, K is the quantitative measure of the size of the stock of manufactured capital, and L is the quantity of labour employed during that period of time (Precious, 2015).

Thus, the neo-classical growth theory is adopted considering the fact that public debt, if borrowed to finance health, education, and development investments, is considered as being productive, which can contribute positively to economic growth via increased labour, capital, and technology. As a result, government spending will increase.

Hence, instead of having the function Y=f (A, K, L), the function is modified to suit the present study.

Mathematically, the model is specified as:

GDP = f (EXD, DD, GEX, NS, CPI)…… (2)

Where; GDP is the gross domestic product growth, EXD is the external debt, DD is domestic debt. The inclusion of GEX (government expenditure), NS (national savings) and CPI (inflation rate) is because they are the major proximate determinants of economic growth in Nigeria and as such, they are included as control variables in this model. In linear function, the relationship is specified econometrically thus:

$GDP_t = \varphi 0 + \beta_1 EXD_t + \beta_2 DD_t + \beta_3 GEX_t + \beta_4 NS_t + \beta_5 CPI_t + U_t$……..…. (3)

Sources of Data

Secondary data were used in this study to achieve empirical results on the impact of public debt accumulations on economic growth in Nigeria over the period 1994-2022. The variables used in the investigation included gross domestic product, external debt, domestic product, government expenditure, national savings and inflation rate. Data on these variables were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin, volumes 32, 2022 publication.

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Test for Causality

The concept of causality is essentially of importance in econometric analysis. It is important to know whether a past change in one variable X causes a current change in another variable Y or whether the relation works in the opposite direction. In econometrics, the most widely used operational definition of causality is the Granger's definition of causality. Geweke (2014) pointed out that these causality tests might be valid if the form of nonstationarity of the variables can be captured by the inclusion of deterministic trends and or logarithm transformations. In doing this, the variables will be tested for stationarity to show their order of integration after which cointegration test will be performed to know if the variables cointegrate in the long run. This will enable us to determine the appropriate model to be used in implementing the causality test. From the result of the model, the conventional F-test will be used to determine the causality.

Causation is said to run from x to y if the past and present values of x are significantly different from zero as a group. The same applies to causation from y to x. (see equations 1 and 2). If the result from equations 1 and 2 are significantly different from zero, it means that causation runs from both sides. The model for the causality test is shown below:

$$y_t = c + \sum_{j=1}^{k} \square_j x_{t-j} + \sum_{j=1}^{k} \square_j y_{t-j} + \varepsilon_{1t} \ldots..(1)$$

and

$$x_t = c + \sum_{j=1}^{k} \square_j y_{t-j} + \sum_{j=1}^{k} \lambda_j x_{t-j} + \varepsilon_{1t} \ldots. (2)$$

where x and y represent the variables to be considered. That is, External Debt (ED) and Foreign Private Investment (FPI), k is the appropriate lag length, and ε_t represents the error term.

Unit Root Test

In this section, we performed a unit root test on each of the variables since they are time series in nature. The study made use of the Augmented Dickey Fuller (ADF) referred to as the conventional or the classical unit root test and the Philip Perron's (PP) test to determine the order of integration of the variables. This enables us to avoid the problems of spurious result that are associated with non- stationary time series models. The results of the unit root test are shown in tables 1 and 2.

Presentation and Interpretation of Empirical Results

The results of the unit root test on each variable are presented in Tables 1 and 2. In table 1, it was observed that the null hypothesis of stationarity is rejected.

Table 1: Unit Root Test

Level		First Differences		Order of Integration	
Variables	**ADF Statistic**	**5% Critical Value**	**ADF Statistic**	**5% Critical Value**	
LGDP	-0.792308	-2.945842	-3.157453	-2.948404	1(1) **
LEXD	-2.993751	--2.945842	-4.567700	-2.948404	1(0) *
LDD	-1.621270	-2.945842	-4.537783	-2.948404	1(1) **
LGEX	-0.849119	-2.945842	-7.214707	-2.948404	1(1) *
LNS	-0.492972	-2.945842	-4.347939	-2.948404	1(1) **
CPI	-2.377867	-2.858234	-5.754351	-2.948404	1(1) **

Source: Researchers' compilation from E-view 9

1(1) * indicates stationary at level form.

1(1) **indicates stationary after 1st differencing. Thus, as revealed in table 1 above, the series such as LGDP, LDD, LGEX, LNS and CPI are non-stationary at level form and only become stationary after first differencing. However, only LEXD is stationary at level form, thus revealing a mixed order of integration of 1(0) and 1(1). This is a motivation for the test of long-run, steady state and equilibrium relationship among the series included in the model.

(ii). Auto Regressive Distributed Lag (ARDL) Bounds Co-integration Tests The derivation of a mixed order of integration of 1(0) and 1(1) gives rise to the application of ARDL Bounds co-integration test as developed by Pesaran, Shin

and Smith (2001). This technique deals with the analysis of the long-run relationship and short-run dynamic interactions among the underlying variables. The results are shown in table 2 below:

Table 2: ARDL Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.602348	0.102779	5.860603	0.0000
LEXD	-0.069716	0.031626	-2.204362	0.0362
LEXD(-1)	0.074462	0.026502	2.809692	0.0091
LDD	-0.054168	0.109976	-0.492545	0.6263
LDD(-1)	0.168500	0.109692	1.536126	0.1361
LGEX	0.184218	0.065830	2.798386	0.0094
LNS	0.092092	0.059563	1.546121	0.1337
CPI	0.000109	0.000643	0.169410	0.8667
C	1.132546	0.295044	3.838572	0.0007
R-squared	0.999200	Mean dependent var	8.543717	
Adjusted R-squared	0.998963	S.D. dependent var	2.260913	
F-statistic	4215.147	Durbin-Watson stat	1.971407	
Prob(F-statistic)	0.000000			

Source: Researchers' compilation from E-view 9

Estimation Model:

$LGDP_t = 1.132546 - 0.069716LEXD_t - 0.054168LDD_t + 0.184218LGEX_t + 0.092092LNS_t + 0.000109CPI_t$

Results of the ARDL above show that at lag zero, external debt (LEXD) and domestic debts (LDD) have a negative relationship with LGDP in Nigeria; while government expenditure insignificant impact on LGDP. This result is adjudged correct considering the coefficients and the p-values of the corresponding variables. However, this result is at variance with the findings of Elom-Obed, Elom and Anoke (2017), which revealed that external debt and domestic debt have negative and significant effects on economic growth in Nigeria. Subsequently, with R^2 value of 0.999200, the result implies that the regressors are able to predict the deviation of the regress up to 99.92%, which is of good fit. Similarly, the results revealed the absence of serial correlation with Durbin-Watson stat of 1.971407, which is close to 2 in line with the a priori criterion

(LGEX), national savings (LNS), and cost price index (CPI) are positively related to LGDP in Nigeria within the period under review. On the other hand, it can be seen that only external debt (LEXD) impacts positively and significantly on LGDP, while domestic debt (LDD), government expenditure (LGEX), Savings (LNS), and consumer price index (CPI) at lag zero have.

Test of Research Hypotheses

H_{01}: Each of External debt (LEXD), domestic debt (LDD), does not have positive significant impacts on gross domestic product (GDP) in the Nigerian economy.

These hypotheses were tested using the coefficients and the p-values of the included variables, as generated from the results of the ARDL model in Table 2 above. As shown from the results, the coefficient of the external debt (LEXD) is -0.087399 with the p-value of 0.0262 which is less than 5% critical value. Since the coefficient of the variable is negative and its p-value of 0.0262 is less than 5% critical value, the study rejects the null hypothesis (H_0) and concludes that external debt (LEXD) has a negative and significant impact on gross domestic product (LGDP). For domestic debt (LDD), the coefficient of LDD is -0.146461 with the P-value of 0.1057. Since the coefficient of the variable is negative and the p-value of 0.1057 is greater than 5% critical value, the study accepts the null hypothesis (H_0) and concludes that there is no significant positive impact of domestic debt on economic growth in Nigeria.

Moreover, there exists government expenditure (LGEX), savings (LNS) and consumer price index (CPI) with the coefficients of 0.184218; 0.92092 and 0.000109 with their corresponding P-values of 0.0094; 0.1337 and 0.8667 respectively. Since their respective P-values are higher than the theoretical alpha level of 0.05 at 5% critical value, the study accepts the null hypotheses and concludes that there is no significant positive impact of government expenditure, savings and consumer price index on economic growth. This finding corroborates the submission of Abu and Abdullahi (2010) that government total capital expenditure, total recurrent expenditure, and government expenditure on education have negative impact on economic growth (GDP) in Nigeria.

Discussion of Results ARDL Bounds Co-integration Test Results

From the results of the ARDL model used as analytical techniques for this study, the empirical analysis reveals that at lag zero, external debt (LEXD) has a negative and significant impact on LGDP; while domestic debt has a negative and insignificant impact on economic growth. This means that 1% increase in external and domestic debts will decrease gross domestic product (GDP) in Nigeria by 0.0874 units and 0.1465 units, respectively. The negative and significant impact of external debt, as revealed by the results is a clear confirmation of the existence of debt overhang in Nigeria's economy.

Similarly, the empirical findings are at variance with the findings of Alejandro and Ileana (2017), who evaluated the impact of government debts on gross domestic product in 16 Latin American economies using Two-Stage Least Squares (2-SLS) technique; and found that public debt has a positive impact on GDP growth in those economies. On the other hand, the discoveries are in conformity with the submissions of Elom-Obed, et al. (2017), Abula and Ben (2016) and Esther, Folorunsho and Felix (2008), who examined the relationship between public debt and economic growth in Nigeria, applying co-integration test, Vector Error Correction Model (VECM) and Granger causality test. The results indicated that external debt and domestic debt have negative effects on economic growth in Nigeria.

Chow Structural Breakpoint Test Results

The Chow Breakpoint Test was applied to test for structural break between public debts and economic growth, following the debt relief secured by Nigeria from Paris Club in 2006. In the estimation, the results revealed that there was no significant structural break between public debts and economic growth in Nigeria within the period under review. This claim is evident by the F-tabulated and F*-calculated. From the results, the F*-calculated value is 2.50 while the F- tabulated is 2.90 at 5% level of significance. Hence, since the F* - calculated of 2.50 is less than the theoretical F of 2.90, the study concludes that there is no significant structural break between public debt stocks (i.e. external and domestic debts) and economic growth in Nigeria.

The argument above is also evident by F-statistic and the p-value of the estimation equation. The results show F-statistic of 2.830467 and p-value of 0.0545 which is greater than the 5% level significance. Thus, the result further affirms the earlier finding above. This result implies that though Nigeria secured debt relief in 2006, the two relationships have not differed significantly. That is, the GDP function has not changed between the two periods. Recall that while the country secured debt relief on external debt, domestic debt rose rapidly to fill the gap created by the event of the debt forgiveness, thereby causing structural break not to exist in the time series.

Conclusion

This study examined the impact of external debt and foreign direct investment on economic growth in Nigeria from 1994 to 2022. The equation specified made gross domestic product (LGDP) a function of external debts (LEXD), domestic debts (LDD) and other proximate determinants of economic growth. ARDL model and Chow Breakpoint test were utilised in the analysis.

The ARDL model results revealed that external debt (LEXD) had a negative and significant impact on LGDP, while domestic debt (LDD) has a negative and insignificant effect on LGDP. The findings confirmed the submission made by Elom-Obed, Odo, Elom

and Anoke (2017) for the Nigerian economy. The results also showed that whereas national savings (LNS) had a positive and insignificant effect on LGDP in Nigeria, government expenditure (LGEX) revealed that there is no significant positive impact of government expenditure, savings and consumer price index on economic growth in Nigeria.

Recommendations

The following recommendations were made based on the findings and the objectives of the study. Following the discovery that external debt has a negative and significant impact on economic growth in Nigeria, government should discontinue the use of external debt to finance budget deficit in the economy. Government should rather look inward through aggressive internal revenue generation as well as embracing economic diversification policies to drive economic growth.

More so, domestic debt has negative and insignificant relationship with gross domestic product (GDP). Hence, government should henceforth discontinue the use of domestic debt to finance fiscal deficit; but as a matter of urgency, government should cut down on recurrent expenditures, especially the salaries of public office holders and stimulate the revenue base of the economy in order to finance capital investment projects in Nigeria for a sustainable economic development.

Suggestion for Further Studies

Due to dearth of data and the page limitations for this study, the researchers were unable to examine the implications of public debt servicing on the economy, whose stock is becoming higher than the public debt stock in Nigeria. Therefore, the aforementioned aspect is recommended to other researchers who might have interest in this field of knowledge.

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