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## The Effect of Debt Burden on Economic Development in Nigeria 1980-2019

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**ABSTRACT:** *The study evaluated the effect of debt burden on economic development for the period of 1980-2019. The data were obtained from the CBN Statistical Bulletin and analyzed using econometric methods, adopted the Ordinary Least Squares (OLS), Augmented Dickey-Fuller Unit Root test, Auto Regressive Distributed Lag Model, and Bounds Test. From the results, the mean value of external and domestic debt burden was ₦1.539 billion and ₦0.048 billion respectively. The mean school enrolment rate was 31.85% and the mean real GDP was ₦33, 725.22 billion. Results from the ADF test carried out revealed that the variables were stationary at the level and first difference. Results from the bound test revealed that there is a long-run relationship between per capita income and debt burden. Findings from the ARDL model revealed that external debt has a positive significant relationship with economic growth in the short run and long run. The external debt stock of Nigeria has warranted a significant positive effect on the nation's gross domestic product (GDP) within the period under study; the domestic debt on the other hand exerts a significant negative effect on GDP. The result of the analysis also revealed that the external debt stock of Nigeria exerts a negative and significant effect on per capita income. Based on the findings of the study, it was recommended that external debts, when compared with domestic debt should be encouraged given the positive impact on the GDP, borrowing should be done only when there is a pressing need and such loans should be sourced from within, and Debt Management Office (DMO) should set mechanisms to ensure that loans are utilized for the purpose for which they were acquired.*

### I. INTRODUCTION

Sustainable economic development is a major concern for all countries, especially developing economies that regularly face ever-increasing fiscal deficits mainly driven by higher levels of debt service, particularly external debt servicing and widening current account deficits (Reinhart *et al.*, 2012). Studies show that to stimulate economic development in a country where domestic saving is low and high current account payment deficit the government may have to borrow funds from external sources. Hence countries resort to external borrowing to stimulate higher consumption or to finance the transitory balance of payment deficits, and for structural reasons to circumvent hard budget constraints. These are problems associated with developing countries like Nigeria, and other sub-Saharan countries. Persistent increase in external debt has been a burning economic issue in the recent time in Nigeria. It thereby becomes worrisome and worthy of study to ascertain if the rate of borrowing yields the dividends as it ought to be under normal circumstance as evidently seen in developed countries and given the persistent increase in the debt profile within the last 5 years (Camillus, 2019).

According to Atique and Malik (2012) external debt constitutes a greater share of the public debt structure in developing countries which is usually on the premises of the desire to promote sustainable economic growth/development for the vast majority of her citizenry. External debt plays both an optimistic and destructive part in forming economic growth, especially of the developing nations. However, it is useful if it is utilized for investment-oriented purposes. For example, sectors like the power sector, educational sector among others. External debt may be an economic stimulant but when its accumulation gets to a very substantial level, a reasonable proportion of government expenditure and foreign exchange earnings will be used to service and repay the debt with heavy opportunity costs even for future generations. Thus, external debt is a major source of finance majorly used in supplementing domestic sources of funds in a bid to support the development process as well as other needs of a country. It must however be pointed out that excessive external debt may breed harmful

effects to the sustainable economic growth and poverty reduction which developing nations seek if not properly monitored or implemented.

Over the past decade and especially after the financial crisis in 2008, the level of public debt has been expanding in international, national and sub-national level. Nigeria's debt profile rose by 2.3% to \$68.74 billion (N24.947 trillion) as at March 2019, according to the Debt Management Office (DMO, 2019). Mbah (2016) explained that government borrowing can be used to promote economic growth, through the financing of government deficit expenditures which stimulates aggregate demand and thus encourage increase in private investments. Soludo (2003) in Okonjo-Iweala *et al* (2003) argues that once an initial stock of debt grows to a certain threshold, servicing them becomes a burden, and countries find themselves on the wrong side of the Debt Laffer Curve, with debt crowding out investment and growth. Conversely, Bakare (2011) asserts that a country's indebtedness does not necessarily slow growth, rather it is the nation's inability to optimally utilize these loans to foster economic growth and development and ensure effective servicing of such debt that hampers the benefits derivable from borrowed capital resources.

Economic performance of any economy generally is usually assessed in terms of the achievement of economic objectives and these objectives can be long term such as sustainable growth and development or stabilization of the economy in respect to sudden and unpredictable events called shock. In the context of this study, economic performance is seen from the point of view of economic growth and development. Thus, the nation's economic development indices like the gross domestic product (GDP), and human development index (including school enrollment rate and life expectancy rate), etcetera, are the main point of reference in measuring Nigeria's economic development.

## II. STATEMENT OF PROBLEM

Historically, the beginning of debt burden on less developed countries generally can be traced to the early 1980's after the oil price increase of the 1970's. It was the product of reactions by the international community to "oil price stocks". One of the legacies of African countries from the crisis has been an increasing debt burden, which constituted a major constraint to growth and development of the countries. Defective structure of incentives paved the way for an industrial sector that was heavily dependent on imported inputs with very low value-added (Ayodele, 2012). Between 1981 to 2004 (before the debt pardoning), Nigeria's external debt records surged from N2.33 billion to about N4,890.27 billion (CBN, 2016) representing more than 2000% increase in the nation's external debt burden of the country outside the associated debt servicing value.

Nations of the world in general and developing nations in particular (Nigeria inclusive) resort to borrowing to cushion the effect of shortage of resources required to finance developmental projects in their economy. To this end, public debt of any nation is justified in the amount of capital investment and general economic development programs undertaken with such borrowed resources. It is however perplexing to observe that Nigerian loan history appears not to be in tandem with this ideal essence of public borrowing. A review of the loan inclination of Nigeria against the backdrop of her infrastructural and human development and the general standard of living of the Nigerian people (as evidenced by the nation's unemployment rate, dilapidated roads, ailing healthcare, epileptic power supply, poor educational system, low human development index, among others) leave great worry as to what really has the government achieved with the huge debt inclination over the years. For instance, between 1995 to 2004, Nigeria's external debt burden increased from N716.87 billion to N4,890.27 billion representing an increase of approximately 682%; on the other hand, the nation's domestic debt figures stood for N477.73 billion (1995) and N1,370.33 billion (2004) representing an increase of 287%. The nation's unemployment rate was 1.9% in 1995 and 13.4% in 2004. The question remains; how much has these tremendous increases in the loan proceeds to the coffers of Nigeria's government translated to improved economic disposition of Nigerian nation and her people. Incidentally, by 2005, Nigeria appealed to her creditors for debt pardoning, pledging to plough the fund used in servicing the debts to infrastructural development if her creditors cancel her huge debt burden. The agitation paid off that the loan the nation owed Paris and London Clubs which stood at N4,196.84 billion and N196.16 billion respectively in 2004 were entirely pardoned in 2005 such that in 2006, the two clubs loan balance came to zero; thus, bringing the total external loan disposition of Nigeria from N4,890.27 billion in 2004 to N451.46 billion in 2006 (CBN, 2016). It is indeed worrisome that after the debt pardoning of 2005, the debt profile of the country has gradually risen again; external debt figures have risen from N451.46 billion in 2006 to N3,478.92 billion in 2016 while the domestic debt profile galloped from N1,753.26 billion to N11,058.20 billion within the same period. Altogether, the total debt profile of the federal government of Nigeria rose from N2,204.72 billion in 2006 to N14,517.12 billion in 2016; yet, critical sectors of the economy such as education, electricity, transport and exchange rate, etc. show no clear evidence of commensurate improvement. One wonders therefore how the money saved from servicing the debt since the loan pardon of 2005 and the additional loans taken by the government of Nigeria since then have influenced the nation's economic performance. Can it be affirmed that the huge debt inclination of Nigeria is justifiable by the present status of the nation's economic development indices; how has this high

debt profile reflected on the nation's economic performance like the gross domestic product, investment on capital projects and human development index, among others? Has the nation fared better for getting the relief by way of improvement in the earlier mentioned key economic development indices? These form the basis for this study; hence, empirical evidence to allay these worries becomes very essential.

Besides, existing empirically literature around the subject matter of this study presents conflicting findings. For instance, while Onyewu (2012) asserted that the Nigeria's level of debt has negative effect on economic growth; Egbetunde (2012) conversely affirmed that public debt and economic growth in Nigeria have long run relationship, and that they are concerns, this study is developed to establish empirically the justification or otherwise of the high debt disposition of Nigeria on her economic performance. From the foregoing, it is clear that there were divergent views on the impact of external debt on the economy, hence the need for policy makers to have good appreciation of its impact on the economy at various levels of debt accumulation to enable them make informed decisions. This is so, as there are periods/situations of which debt is desirable and necessary, while there are other times debts should be avoided. Its against this backdrop that the study seeks to provide answer to the following research questions, to examine the effect of debt burden on Nigeria's per Capita Income, ascertain the effect of debt burden on Nigeria's school enrollment rate, and investigate the effect of debt burden on Nigeria's gross domestic product

### III. THEORETICAL REVIEW

A number of theories on debt burden on economic development have been postulated in literature. However, the study reviewed three theories which are highly relevant to this research wok. The theories are Keynesian, Ricardo and Modern Public Debt Theory, Debt Overhang.

#### a. Keynesian Theory

The Keynesian theory (1935) stated that some microeconomic-level actions if taken collectively by a large proportion of individuals and firms can lead to inefficient aggregate macroeconomic outcomes, where the economy operates below its potential output and growth rate. Most Keynesians advocate an activist stabilization policy to reduce the amplitude of the business cycle, which they rank among the most serious of economic problems (Mankiw, 1992). Keynes argued that the solution to the Great Depression was to stimulate the economy ("inducement to invest") through some combination of two approaches: a reduction in interest rates and government investment in infrastructure. Investment by government injects income, which results in more spending in the general economy, which in turn stimulates more production and investment involving still more income and spending (Keynes, 1935). The initial stimulation starts a cascade of events, whose total increase in economic activity is a multiple of the original investment. A central conclusion of Keynesian economics is that, in some situations, no strong automatic mechanism moves output and employment towards full employment levels (Mankiw, 1992). This conclusion conflicts with economic approaches that assume a strong general tendency towards equilibrium. In the 'neoclassical synthesis', which combines Keynesian macro concepts with a micro foundation, the conditions of general equilibrium allow for price adjustment to eventually achieve this goal (Mankiw, 1992). More broadly, Keynes saw his theory as a general theory, in which utilization of resources could be high or low, whereas previous economics focused on the particular case of full utilization. Hence the need for states whose total revenue generation is inadequate to source for funds from external sources.

#### b. Ricardo and Modern Public Debt Theory

Setting multiplier effect in the opposite direction, and therefore consumption and government spending move in the same direction. Government borrowing thus activates unemployed funds but does not reduce private investment, and as a result there is no negative impact on capital growth. Several criticisms of the Keynesian model have emerged. Churchman (2001)The first concerns difficulties which policymakers face in the practical management of countercyclical policy. If fiscal policy is implemented based on imprecise or incorrect macroeconomic forecasts, attempts to 'fine tune' the economy might amplify, rather than dampen, business cycle fluctuations. In addition, variable or uncertain lags in the choice, implementation and effect of fiscal policy can add to policymakers' difficulties. Rational Expectations theory has described similar complications along these lines. Governments' models of the economy are based on the past behaviour of households and firms. But past economic behaviour depended upon the policy regime in place at the time. When governments change their policies, expectations change, and governments must take this into account in predicting the responses of economic agents to a policy change. Measurement difficulties, lags and uncertain public reaction to policy changes all make 'fine tuning' the economy a difficult task. A second criticism of Keynesian macroeconomic analysis involves 'crowding out'. This term refers to a number of different means by which expansionary fiscal policy may in the end have little or no effect on national income. One avenue for crowding out may be Ricardian Equivalence. As described in more detail below, Barro (1974) in Churchman (2001) argued for complete crowding out from this perspective, in which increased private savings in

anticipation of future taxes reduce private consumption. Alternatively, in a Keynesian world with output below its full employment level, crowding out may occur in an IS–LM framework. In this context, the fiscal multiplier is smaller the lower the elasticity of money demand with respect to the interest rate, or the higher the elasticity of private spending with respect to interest rates. Current large deficits and the expectation of large future deficits result in higher interest rates, and crowd out of the credit market other borrowers for mortgages, corporate investment, and consumption spending. Moreover, large deficits and high interest rates make domestic government bonds more attractive to foreign investors, pushing interest rates higher as the demand from abroad for domestic currency to purchase these bonds rises. In this framework, fiscal expansion crowds out the interest sensitive components of private spending, but the multiplier effect on output is still positive. One may also get complete crowding out in more sophisticated macroeconomic models.

Churchman (2001) Ricardian Equivalence Ricardo's case against public borrowing is based in part on consideration of its depressing effect on capital accumulation and economic growth. This case is founded on the assumption that the unfortunately named 'Ricardian Equivalence' is invalid, since individuals are prone to 'wealth illusion'. Ricardian Equivalence owes its prominence in the modern debate over public debt to its restatement by Barro (1974) in Churchman (2001) for it to hold, it is necessary that economic agents base their consumption decisions not merely on their current income but on some notion of wealth. That this is so has come to be widely acknowledged with the development of the permanent income and life cycle hypotheses as frameworks for the analysis of consumption decisions. Ricardian Equivalence also requires that economic agents are fully informed and make their consumption decisions rationally. Ricardo himself was, it seems, the first to recognize that taxpayers might suffer from 'fiscal illusion'. He argued that myopic taxpayers do not recognize the full weight of future taxation implied by a substitution of debt for tax finance, and thus improperly perceive such a substitution as an increase in their net worth, and increase their current consumption accordingly, at the expense of savings and investment.

### c. Debt Overhang Theory

The debt overhang theory predicts a negative relationship between the public debt and economic development which are the two key variables of this study. Proponents of this theory believe that as external debt rises above a country's repayment ability, investment is discouraged by the expectation of higher future taxes; thus, the uncertainty associated with high debt, low probability of debt relief and high chances of default (in that regard) reduces investors' incentives and economic growth; as a consequence, high debt service may crowd out private investment (Cohen, 1993); thus leading to poor economic performance of a country. The debt overhang theory, according to Arit (2013) holds that debt affects the economic growth through the disincentive effect and illiquidity effect. The debt stock (volume of debt) is concerned with if the country has the assets required to clear this debt in the long run which affects the economic growth through the disincentive aspect of the debt overhang. The debt service burden (flow of debt payments) is a short-term problem concerned with how the debt payments can be serviced from the current income and this affects the economic growth through the illiquidity aspect of the debt overhang which thus results to crowding out effect. In fact, the disincentive effect discourages future investments as investment (capital project) spending of the government will reduce, private investment (foreign direct investment) will be discouraged, leading to a slowdown in economic performance. The cycle continues with further reduction in investment following the economic slowdown, an increase in the debt income ratio, and a reinforcement of the disincentive effect, which ultimately leads to stagnation. In the face of the foregoing, the debtor country is plunged into liquidity trap (a state of illiquidity) as the indebted country mobilizes every available resource to service debt rather than invest in its economy; thus, debt burden crowds out public capital investment in the economy (crowding out effect). Evidently, the key drive for this study is premised on the nature of debt inclination of Nigeria which could better be described as unbearable against the backdrop of the nation's continued poor economic development status with respect to infrastructural development (public capital investment) and human development. This necessarily results to the nation's inability to repay the loans raised at the end of the day owing to the low availability of 'economic-development-driven investments' which should yield the necessary economic dividend that would enable the repayment of the loans (principal sum and the accumulated servicing cost). This became evident in 2004 when Nigerian government appealed to her international creditors to grant debt pardoning (relief) to her; asserting the country's inability to continue in the servicing of the loans and at the same time take care of the immediate demands of governance (crowding out effect). Eventually, the country got huge debt forgiveness from her two prominent creditors (namely; the Paris and London clubs). Incidentally, Nigeria's debt profile has gradually risen again with no clear economic evidence of her ability to offset the debt. There is therefore the indication of debt overhang in the circumstance of Nigeria economic climate.

#### IV. LITERATURE REVIEW

Amaefule (2018) examined the effect of public debt on the performance of Nigeria's economy. Economic performance was measured with the nation's gross domestic product (GDP), public capital investment (PCI) and the human development index (HDI) while public debt was measured with external debt, domestic debt and total debt servicing. Data on the variables were sourced from the Central Bank of Nigeria bulletin, Debt Management Office reports and World Bank publications for the period of 1991 to 2016. Data collected was subjected to stationarity test using Augmented Dickey-Fuller unit root test which confirmed the stationarity of the data used. Ordinary least square regression model was adopted in analyzing the data. Findings indicated that external debt exerted significant negative effect on GDP and PCI without any evidence of significant effect on HDI. Result also indicated that domestic debt warranted significant positive effect on all the economic development indices while total debt servicing showed no statistical evidence of significance on any of the economic development proxy. The implication of the finding is that the huge external debt records together with the associated debt servicing cost are not justified; the government has not judiciously utilized the proceeds from such loans.

Chris and Samson (2012) examined the extent of public debt crisis and its consequences on economic development using data from Nigerian economy for the period 1970 to 2010. It employed the error correction framework and co-integration techniques to test the relationship between per-capita gross domestic product and macroeconomics variables. The test reveals that there is long relationship between dependent and the independent variables. This implies that political instability may reduce rate development and other independent variables are responsible for the underdevelopment of Nigeria. Hence, to avoid the crisis of economic development in Nigeria public debt should be reduce to a minimal level.

Festus, Gift, and Saibu (2019) studied sought further evidences on the effect of external debt on economic growth in Nigeria. Time series data on external debt stock, real gross domestic product, trade openness, and gross fixed capital formation as a percentage of GDP as well as data on inflation and exchange rates were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin and World bank indicators. The study set out to test for both the long run and short run relationship as well as presenting further evidences on the relationship between external debt and economic growth. The Autoregressive Distributed Lag (ARDL) Model was employed as a technique of estimation in the study and the results led a finding that the external debt contributed negatively to growth in Nigeria based on data from 1981 through 2016.

#### V. METHODOLOGY

##### a. Study Area

The study was conducted in Nigeria. The country is located in Western Africa on the Gulf of Guinea and has a total area of 923, 768 Km<sup>2</sup> (356, 669 Sq m), making it the worlds' 32<sup>nd</sup> largest country. Nigeria lies between Latitude 4<sup>o</sup> and 14<sup>o</sup> North and Longitude 2<sup>o</sup> and 15<sup>o</sup> East. Nigeria is often referred to as "Giant of Africa" owing to its large population and economy with about 200, 962, 417 people. The country comprises of thirty-six (36) state and the Federal Capital Territory (FCT); Six (6) geo-political zones namely: North Central, South-South, South-East, South-West, North-West and North-East. The nominal GDP estimate for 2019 is total to \$447.013 billion and per capital \$2,244. Nigeria's Public Debt as at September 30, 2018 (FGN +States & FCT) 21,591.68 and Domestic Debt (FGN + States & FCT) 51,621.32. DMO, 2019. Nigeria's debt profile rose by 2.3% to \$81.27 billion (N24.947 trillion) as at March 2019, according to the Debt Management Office (DMO) data seen by Business Insider SSA Nigeria's most diverse feature is its people. Hundreds of languages are spoken in the country, including Yoruba, Igbo, Fula, Hausa, Edo, Ibibio, Tiv, and English, among others.

Time series data from Secondary source was used for this study. These was collected from Central Bank of Nigeria (CBN) data base, Debt Management Office (DMO) publication. Index mundi and Nigeria Bureau of Statistics (NBS) which are relevant for the study. This data spanned through the period of 1980 to 2019.

##### b. Method of Data Analysis

Data collected was analyzed with OLS method of estimation

##### i. Model Specification

This study explored a linear relationship between output and debt burden following Amaefule (2018) the model is based on the following OLS equation:

$$PCI = \gamma_0 + \gamma_1 EXTD_t + \gamma_2 DOMD_{2t} + \mu_t \dots \dots \dots (1)$$

$$SER = \gamma_0 + \gamma_1 EXTD_t + \gamma_2 DOMD_{2t} + \mu_t \dots \dots \dots (2)$$

$$RGDP = \gamma_0 + \gamma_1 EXTD_t + \gamma_2 DOMD_{2t} + \mu_t \dots \dots \dots (3)$$

Where,

$L_n$  = Natural Log,

EXTD = External Debt Burden,

DOMD = Domestic Debt Burden,  
 PCI = per Capita Income,  
 SER = School Enrollment Rate,  
 RGDP = Real Gross Domestic Product,  
 t= Time Trend,  
 μ= Error term,  
 γ<sub>0</sub> = Constant Term, and  
 γ<sub>1</sub>, γ<sub>2</sub>, γ<sub>3</sub> = Coefficient of Debt.

**Diagnostic Test**

**ii. Unit Root Test**

The testing procedure for the ADF test is the same as for the Dickey–Fuller test but it is applied to the model.

$$\Delta Y_t = \beta_0 - \beta_{1t} + \lambda Y_{t-1} + \dots, \sum_{i=1}^{\rho} \alpha_i \Delta Y_{t-1} + \varepsilon_t \dots \dots \dots (3.4)$$

where Y is the single time series for (EXTD, DOMD, PCI, SER, RGDP) under investigation and β is the parameter coefficient, ε<sub>t</sub> is a pure white noise error term, α<sub>i</sub> and λ are coefficients of the lag terms and ρ is the length of the lag terms which is automatically selected using Akaike information criteria. If λ is 0, then there is unit root, but if it is less than zero (negative), the null hypothesis is rejected and the alternative that the series is stationary is accepted.

**VI. RESULTS AND DISCUSSION**

**a. Unit Root Test**

The result on table 4.2 shows that only per capital income (PCI) and Real GDP were integrated of order I (0) at 1% level of significance, meaning that it is stationary at level, while the variables, school enrollment rate, and domestic and external debt burden were integrated of order I (1). The result indicates that school enrollment rate, and domestic and external debt burden have unit root problem when considered at their level forms, but turned stationary after their first difference. This was ascertained when the augmented dickey fuller (ADF) statistics is compared with the critical values of each corresponding variable. For all the variables used, their ADF statistics in their absolute terms were more than the corresponding critical values at 5 percent and 10 percent levels of significance. Because the variables are a mixture of I (0), and I (1) the Autoregressive Distributed Lag Model technique would be most appropriate.

**Table 1: Augmented Dickey Fuller Unit Root Results**

	Critical Values				of
	Level	First Difference	Second Difference	Degree Integration	
Domestic Debt Burden	2.924442	-3.239784**	-6.662949***	I (1)	
External Debt Burden	-1.797952	-5.345302**	-7.117015***	I (1)	
School Enrolment	-1.355071	-6.342523***	-4.912858	I (1)	
Real GDP	5.117149***	-0.242100	-2.345434	I (0)	
Per Capita Index	-5.776119***	-10.07945	-6.921972	I (0)	

Source: Author’s Computation (2020) From E-Views 9.0

**b. Effect of Debt Burden on RGDP, PCI, and School Enrolment Rate**

From the results on table 4.3 the study found that in measuring the individual effect of the independent (debt burden) variables, for model 1 with RGDP as the dependent variable: external debt is associated with significant positive effect on RGDP with P = 0.003 on the other hand domestic debt exerted a negative significant effect on GDP with P = 0.0021. The coefficient of external debt and domestic debt were 0.0151 and -0.9488 respectively. From the results it shows that a unit increase in external debt burden will results to a 0.015 unit increase real GDP. Also, a unit increase in domestic debt burden will results to a 0.9488 unit decrease real GDP

For model 2 with PCI as the dependent variable: external debt showed negative and significant effect on PCI with P = 0.0267; domestic debt exerted a positive but insignificant effect on PCI with P = 0.2801. The coefficient of external debt and domestic were -0.0002 and 0.00015 respectively. From the results a unit increase in external debt burden will results to a 0.0002 unit decrease real GDP.

For model 3 with school enrollment rate which is one of the indices used to calculate HDI as the dependent variable: external debt is associated with non-significant negative effect on school enrolment rate with P = 0.4773 and domestic debt was positively and significant affects enrolment with P = 0.1057. The coefficient of external debt and domestic were -0.3506 and 0.39.513 respectively.

The R<sup>2</sup> value was 0.99, 0.20, and 0.90 for 1,2, and 3 models. It individually depicts the extent of fluctuation in dependent variables (RGDP, PCI, School enrolment rate) as a result of external debt, domestic debt captured in the model. The F-statistic also appeared to be significantly different from zero, indicating that all the independent variables in the model jointly influenced the dependent variable.

**Table 2: Auto Regressive Distributed Lag Model**

	Model One (1) RGDP		Model One (2) PCI		Model One (3) School Enrolment	
	Coefficient	P – Value (t – Prob)	Coefficient	P – Value (t – Prob)	Coefficient	P – Value (t – Prob)
<b>External Debt</b>	0.0151	0.0034 (3.15***)	-0.00022	0.0267 (-2.3225**)	-0.3506	0.4773 (-0.720)
<b>Domestic Debt</b>	-0.9488	00021 (-3.333***)	0.00015	0.2801 (1.098)	39.513	0.1057 (1.67*)
<b>External Debt</b>	0.000249	0.0000901 (2.766***)				
<b>R<sup>2</sup></b>	<b>99%</b>		<b>20%</b>		<b>90%</b>	
<b>F-Prob</b>	<b>0.0000***</b>		<b>0.001***</b>		<b>0.0000***</b>	

Source: Author’s Computation (2020) From E-Views 9.0

**c. Bounds Test**

The bound test requires that the F-statistic be greater than the I1 bound value for there to be co-integration. If the F- statistic fall below the lower bound, the variables are I (0) and no co-integration is possible. Any value in between I and I1 is inconclusive. In this case, as can be seen from Table 4.4, that model 2 F-statistic is greater than the I1 bound which is evidence of a long run relationship between the variables (per capital income and debt burden). For model one (1) the F- Statistics was significant up till 2.5% which suggest that there is cointegration between the two variables of interest (Real gross domestic product and debt burden).

**Table 3: Bound Test Results**

Test Statistics	Value	K	Value	K	Value	K
F-Statistics	6.14*	2	15.64684*	2	1.25	2
Critical Value Bounds	Model One (1) RGDP		Model two: PCI		Model 3: School Enrolment	
Significance	I 0	I 1				
10%	3.17	4.14				
5%	3.79	4.85				
2.5%	4.41	5.52				
1%	5.15	6.36				

Source: Author’s Computation (2020) From E-Views 9.0

Table 4.5 showed the long run forms of the Auto regressive Distributed Lag Model from the table for model 1 with RGDP as the dependent variable: external debt is associated with significant positive long-term effect on RGDP with P = 0.0035 < 0.05 on the other hand domestic debt exerted a negative long-term significant effect on GDP with P = 0.041 < 0.05. The coefficient of external debt and domestic debt were 0.0149 and -0.666 respectively. Model 2 with RGDP as the dependent variable: external debt is associated with insignificant positive effect on RGDP with P = 0.2694. Also, domestic debt exerted a positive insignificant effect on GDP with P = 0.5967. The coefficient of external debt and domestic debt were 0.002 and 0.00005 respectively. The result showed that in the long-run, external debt had a negative impact on the Nigerian economy. Following the theoretical explanation of the relationship between debt and economic growth as explained by Elmendorf and Mankiw (1999) and quoted by (Udehet *al*, 2016). In essence, the result shows that one per cent increase in the domestic debt makes the GDP to go down by about 0.666 per cent in the long-run.

**Table 4.5: Long Run Estimate after Bound Result**

	Model One (1) RGDP		Model One (2) PCI	
	Coefficient	P – Value (t – Prob)	Coefficient	P – Value (t – Prob)
External Debt (-)	0.0149	0.0035 (3.14***)	Domestic debt (-1)	0.001728 (1.12)
Domestic Debt (-)	-0.66605	0.041 (-2.1179**)	External Debt Burden (-1)	0.5967 (0.534)
<b>R<sup>2</sup></b>	<b>36%</b>		<b>59%</b>	
<b>F-Prob</b>	<b>0.0019***</b>		<b>0.0000</b>	

Source: Author’s Computation (2020) From E-Views 9.0

#### d. Economic Implication of Findings

The finding was that external debt has a positive significant relationship with economic growth in the short run and long run. This means that in the short run and long run, as debt increases, GDP increases. The a priori expectation is that debt would enhance economic growth in line with the postulate of Keynesian theory. The results are in agreement with Iyaet *al* (2013), Bamidele and Joseph (2013); and who found that external debt had a positive relationship with economic growth. The positive correlation of debt and economic growth could be due to good debt utilization and management as seen in Asian Tigers – Malaysia, Singapore, Indonesia and Taiwan. (Momodu, 2012). The findings in respect of the first objective of the study indicate that the external debt stock of Nigeria has warranted significant positive effect on the nation's gross domestic product (GDP) within the period under study; the domestic debt on the other hand exerts significant negative effect on GDP while. The implication of this is that when economic development of Nigeria is viewed from the point of GDP, domestic debt endeavors of the Nigerian government has done more harm than good to the economy. As such, the huge resources mobilized from outside the government revenue of Nigeria have really reduced the GDP value of Nigeria in real terms; thus, the high domestic debt burn on Nigeria is not justified. It suggests poor management of fund by the officials of Nigerian government and misappropriation of proceeds from loans. On the other hand, the domestic debt stock having positive and significant effect on GDP indicates that loans that are mobilized from domestic source are better utilized in economic activities that affect the GDP of the nation. This finding is indicative of the fact that most of such loans mobilized in hard currencies from other sources may have ended up not being channeled into economic activities in the country but may have ended up being diverted into personal accounts; this could have aided the huge amount of money reported to have been laundered into foreign countries by Nigerian public officials; Going forward the finding of this study agrees partially with Elom-Obed (2017) to the extent that domestic debt has significant negative impact on economic growth but disagrees with it that external debt has negative impact on economic growth. The current study also aligns with Abula and Ben (2016) following their finding that domestic debt stock has a direct and significant relationship with economic development; it however disagrees with them to the extent of their finding that external debt exerts insignificant impact on economic growth. The current study also disagrees with Mbah, Umunna and Agu (2016) who found statistical evidence that external debt impacts negatively but significantly on output; and Okwu, *et al* (2016) which showed evidence of statistically significant positive effect of domestic debt stock of Nigeria on the growth of the economy measured with real GDP.

With regard to the second objective of the study which informed the second model, result of the analysis of the model revealed that external debt stock of Nigeria exerts negative and significant effect on per capital income. It on the other hand revealed that domestic debt exerts insignificant positive effect on PCI. The result further consolidates the fact that external loans by Nigerian government have served to an extent the purpose they were meant for. The findings of this study disagree that of Amaefule and Umeaka (2016) which found no significant relationship between per capital income and external debt. The finding in respect of the third objective revealed that external debt showed insignificant effect on economic development measured with school enrolment rate; while domestic debt exerted significant positive effect on school enrolment rate. The result agrees with the earlier findings that the huge domestic debt profile of Nigeria has influenced economic development. Domestic debt showed statistical evidence of supporting the school enrolment rate of Nigerians. It has been proven statistically that the resources raised from domestic sources overtime has supported economic enhancement of Nigeria.

### VII. CONCLUSION

This study sought to evaluate the effect of debt burden (external and domestic debt) and economic development using the nations GDP, PCI and school enrolment rate as key measures of economic development. External debts are necessary to meet shortfall internal resources, and stimulate the economy. However, it must be properly utilized to avoid serious consequences. Borrowing is not the most important issue but the use to which the fund is deployed. This should be the most important thing agitating the mind of any good accountant and Economist whenever external debt is contemplated. It should be approached with caution, ensuring optimal utilization and higher return than the interest (cost of fund).

The study, in the face of the analysis holds that: There is statistical evidence that Nigeria's external debt stock has significant positive effect on the country's GDP. On the other hand, domestic debt stock of nation significantly and negative affects the nation's GDP. Therefore, external loans support economic development in terms of the gross domestic product. Also, external debt burden of Nigeria showed no statistic evidence of negative insignificant effect on the nation's per capita income and school enrollment rate. Domestic debt however exerted significant positive effect on the two economic variables (PCI and school enrollment rate).

#### a. Recommendations

Based on the findings of the study, the following recommendations were made:

1. External debts should be encouraged: the national assembly should encourage the executive arm of Nigerian government in engaging into subsequent external borrowing and ensures that the institutions



- of government saddled with debt and finance management (the debt management office and ministry of finance) are strengthened; and that laws that would checkmate misappropriation of public funds are made.
2. The Nigerian government should resort to borrowing only when there is pressing need for that; and such loans should be sourced from within.
  3. There is need to ensure that proceeds from loans are used to improve the standard of living of the people by investing the loans on critical infrastructures that will accord direct impact in the wellbeing of the citizens.
  4. Debt Management Office (DMO) should set mechanisms in motion to ensure that loans are utilized for the purpose for which they were acquired. This could be achieved through proper monitoring of the use to which the funds are put.
  5. Anticorruption agencies like Economic and Financial Crimes Commission (EFCC), Independent Corrupt Practices and other Related Offences Commission (ICPC) and Code of Conduct Bureau should be made independent and the laws establishing them reviewed by government to make them more functional and efficient. This will reduce the incidences of misappropriation and embezzlement of funds from domestic debt.

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