



# Responsiveness of Nigeria's Economic Growth to Domestic Debt in the Nigerian Economy

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**Abstract:** The study investigated the effect of domestic debt on Nigerian economy. The study utilized a time series data from 1990 to 2018, and adopts among other techniques the Ordinary Least Squares (OLS) test method. A multiple regression model is formulated to ascertain the relationship between the economic growth and debt financing variables. Our findings establish that Domestic Debt and Debt Servicing (DBS) will increase the Real Gross Domestic Product. However, our result with positive coefficients for Domestic Debt (DDB) and Debt Servicing (DBS), indicates that if they are increased, can also increase economic growth. External Debt (EXD) on the other hand exhibited a positive but insignificant relationship with Real Gross Domestic Product (RGDP). This means that government External Debt (EXD) has not contributed to meaningfully to the economy. The study therefore advocate for adequate coordination of the debt financing policy to better the economy. Also government should revive active process in the public sector that will ensure adequate utilization and accountability of borrowed fund.

**Keyword:** Domestic Debt, Debt Servicing, External Debt, Real Gross Domestic Product.

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## Introduction

Countries borrow for two broad reasons; macroeconomic reason that is to finance higher level of consumption and investment or to finance transitory balance of payment deficit and avoid budget constraint so as to boost economic growth and reduce poverty. The constant need for governments to borrow in order to finance budget deficit has led to the creation of domestic debt (Osinubi and Olaleru, 2016). Domestic debt is a major source of public receipts and financing capital accumulation in any economy

(Adepoju, Salau and Obayelu, 2013). It is a medium used by countries to bridge their deficits and carry out economic projects that are able to increase the standard of living of the citizenry and promote sustainable growth and development. Hameed, Ashraf and Chaudary (2012) stated that domestic borrowing ought to accelerate economic growth especially when domestic financing is inadequate. Domestic debt also improves total factor productivity through an increase in output which in turn enhances Gross Domestic product (GDP) growth of a nation. The importance of domestic debt cannot be overemphasized as it is an ardent booster of growth and thus improves living standards thereby alleviating poverty.

It is widely recognized in the international community that excessive foreign indebtedness in most developing countries is a major impediment to their economic growth and stability (Mutasa, 2013). Developing countries like Nigeria have often contracted large amount of domestic debts that has led to the mounting of trade debt arrears at highly concessional interest rates. Gohar and Butt (2012) opined that accumulated debt service payments create a lot of problems for countries especially the developing nations reason being that a debt is actually serviced for more than the amount it was acquired and this slows down the growth process in such nations. The inability of the Nigerian economy to meet its debt service payments obligations has resulted in debt overhang or debt service burden that has militated against her growth and development (Mutasa, 2013). The genesis of Nigeria's debt service burden dates back to 1978 after a fall in world oil prices. Prior to this occurrence Nigeria had incurred some minor debts from World Bank in 1958 with a loan of US\$28million dollars for railway construction and the Paris Club debtor nations in 1964 from the Italian government with a loan of US\$13.1 million for the construction of the Niger dam. The first major borrowing of US\$1 billion known as the "Jumbo loan" was in 1978 from the International Capital Market (ICM) (Adesola, 2014). Domestic borrowing has a significant impact on the growth and investment of a nation up to a point where high levels of domestic debt servicing sets in and affects the growth as the focus moves from financing private investment to repayments of debts. One of the key macroeconomic objectives of a nation is the achievement of sustainable economic growth. To achieve this goal, every Government requires a substantial amount of capital finance.

The problem of domestic debt and resource requirements in Africa are directly related to capital accumulation and economic growth. Thus, since the 1980s financial crisis in developing countries, foreign lenders have to transfer billions of dollars each year to countries with deficit in order to increase their national wealth. Unsustainable budget deficits have been characterized by financial crisis in most countries in sub-Saharan Africa decades after their independence. However, the balance of payment

deficit in those countries was considered as a normal economic situation in the economy at that specific time. In order to enhance the economic growth and attract foreign investors, deficit countries were stimulated to borrow from outside. But not much effort was made for borrowed funds management. Due to scarcity of capital, it is usually expected that most developing countries are likely to increase the domestic saving by obtaining domestic debt. But to improve economic growth depends on whether the borrowing funds are used for productivity sector or consumption sector. An advanced management of the borrowed funds is the key needed in order to earn a higher return (Marsah, 2015).

Huge domestic debt does not necessarily imply a slow economic growth; it is a nation's inability to meet its debt service payments fueled by inadequate knowledge on the nature, structure and magnitude of the debt in question (Were, 2011). It is no exaggeration that this is the major challenge faced by the Nigerian economy. The inability of the Nigerian economy to effectively meet its debt servicing requirements has exposed the nation to a high debt service burden. The resultant effect of this debt service burden creates additional problems for the nation particularly the increasing fiscal deficit which is driven by higher levels of debt servicing. This poses a grave threat to the economy as a large chunk of the nation's hard earned revenue is being eaten up.

Nigeria like most highly indebted poor countries has low economic growth and low per capita income, with domestic savings insufficient to meet developmental and other national goals. Nigerian exports were primarily primary commodities with export earnings too small to finance imports which are mostly capital intensive (Manufactured) goods which are comparably more expensive (Siddique, Selvanathan and Selvanathan, 2015). Compounding the problem is Nigeria's drift to mono economy with the discovery of oil. The oil sector generates about 95% of foreign exchange earnings and about 80 percent of budgetary revenue. The inability to diversify her revenue sources coupled with corruption and mismanagement compels Nigeria to have inadequate fund for growth and developmental projects such as roads, electricity pipe borne water and so on.

The problems associated with debt and debt servicing prompted Okonjo-Iweala, Soludo and Muhta (2013) to warn that rising Nigeria's debt is an impediment to economic growth and development. They assert that government debt can easily become a burden on the economy weakening its foundation, warning that the authorities should recognise that accumulating debt also means accumulating risks by increasing claims on unrealised future income. A priori expectation was that domestic debt would bring about economic growth. Over emphasis on negative impact of debt will cause morbid fear of debt, resulting in debt avoidance when it would have stimulated the

economy by bringing in the much needed capital for infrastructural development and investment.

From the foregoing, it is clear that there were divergent views on the impact of domestic 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. There are various empirical studies that have been conducted to investigate the impact of domestic debt burden on economic growth in Nigeria and have arrived at different results using the same scope of study. This study therefore focuses on the issues in domestic debt to determine the long run relationship between domestic debt and economic growth by expanding the scope of study beyond what has been done in times past.

### **Conceptual Framework**

The act of borrowing creates debts and this debt may be domestic or external. The focus of this study is on domestic debt which refers to that part of a nation's debt that is owed to creditors inside the nation. Ayadi and Ayadi (2011) defines domestic debt as that portion of a country's debt that is acquired from local sources such as corporations, government or financial institutions. According to Ogbeifin (2014), domestic debt arises as a result of the gap between domestic savings and investment. As the gap widens, debt accumulates and this makes the country to continually borrow increasing amounts in order to stay afloat. He further defined Nigeria's domestic debt as the debt owed by the public and private sectors of the Nigerian economy to non-residents and citizens that is payable in local, goods and services. Debt crisis occurs when a country has accumulated a huge amount of debt such that it can no longer effectively manage the debt which leads to several mishaps in the domestic political economy. Amin (2013) defined debt crisis as a situation whereby a nation is severely indebted to domestic sources and is unable to repay the principal of the debt.

Generally the need for public borrowing arises from the recognized role of capital in the developmental process of any nation as capital accumulation improves productivity which in turn enhances economic growth. There is abundant proof in the existing body of literature to indicate that borrowing aids the growth and development of a nation. Okonjo-Iweala, et al. (2013) was of the opinion that countries borrow for major reasons. The first is of macroeconomic intent that is to bring about increased investment and human capital development while the other is to reduce budget constraint by financing fiscal and balance of payment deficits. Furthermore Umaru et

al. (2013) stressed the fact that countries especially the less developed countries borrow to raise capital formation and investment which has been previously hampered by low level of domestic savings.

Ultimately the reasons why countries borrow boils down to two major reasons which are to bridge the “savings-investment” gap and the “foreign exchange gap”. Mutasa (2013) pointed out that the main reason why countries borrow is to supplement the lack of savings and investment in that country. The dual-gap analysis justifies the need for domestic borrowing as an attempt in trying to bridge the savings-investment gap in a nation. For development to take place it requires a level of investment which is a function of domestic savings and the level of domestic savings is not sufficient enough to ensure that development take place (Osinubi and Olaleru, 2016). The second reason for borrowing from overseas is also to fill the foreign exchange (imports-exports) gap. For many developing countries like Nigeria the constant balance of payment deficit have not allowed for capital inflow which will bring about growth and development. Since the foreign exchange earnings required to finance this investment is insufficient domestic borrowing may be the only means of gaining access to the resources needed to achieve rapid economic growth.

Nigeria's domestic indebtedness can be traced back to the pre-independence period when in 1958 a loan of US\$28 million dollars was contracted from the World Bank for railway construction. This debt did not pose a serious burden reason being that it was acquired on soft terms i.e. with no interest or below market rate of interest. After this period, the need for domestic aid was relatively low until in 1977/1978 when there was a fall in world oil prices which in turn reduced the nation's oil receipts. Before this period Nigeria was experiencing abundance in oil receipts especially with the oil boom of 1973-1976. After crude oil was first discovered in 1956, it became a major source of foreign exchange earnings as there was a gradual drift from agriculture which had been the dominant provider of export earnings, employment e.t.c to near total dependence on oil as the mainstay of the economy (Adepoju, et al., 2013).

Following the fall in oil prices, it became necessary for the government to correct balance of payment difficulties and finance projects. This led to the first major borrowing of US\$1 billion which is referred to as the “Jumbo Loan” in 1978 from the international capital market (ICM). Although this loan was used to finance various medium and long term infrastructural projects, the returns obtained from these projects were not enough to amortize the nation's debts as many of the projects as included in the Fourth National Development Plans (1981-1985) involved mainly the use of imported materials. In 1979, there was a recovery in the oil market and oil was sold in Nigeria at US\$39.00 per barrel which led to the belief that the economy was

bouncing back. But due to the fact that there was excessive importation, it resulted in over-invoicing of imports and under-invoicing of exports and in 1982 when there was another collapse in world oil prices it caused severe strains and stresses on the economy. Foreign exchange was declining rapidly and there were large amount of deficits in government financing. In the face of drastic oil downturn and dwindling oil reserves, the rate of borrowings increased from the international capital market (ICM). At this point the nation's debt profile had begun rising astronomically due to the increasing domestic debt service payments. In 1980 foreign debt stood at US\$8.5 billion and by 1985 it nearly reached US\$19 billion showing an increase of about 45.02%. The increasing in debt service payments interests resulted in mounting of trade debts arrears (Ogbeifun, 2014). By 1997 the nation's debt stock stood at US\$27.0878 billion; US\$18.9804 billion Paris Club debt; US\$4.3727 billion Multilateral debt; \$1.6125 billion Promissory notes and US\$0.7919 billion Non Paris Bilateral debt (Ministry of Finance, 1997). Due to the rise in foreign debt there was a corresponding increase in external debt servicing ratios; debt/GDP and debt/export earnings. As at December 31st 2001, the external debt stock stood at US\$28.35 billion which was about 59.4% of GDP and 153.9% of export earnings (Okonjo- Iweala, et al., 2013).

According to Aluko and Arowolo (2010), the explanation for the growing debt burden of developing economies is of two-fold. Firstly, developing countries have become over dependent on domestic borrowing. Secondly, the difficulties they experience in servicing domestic debt due to huge debt service payments. Osinubi and Olaleru (2016) asserted that the causes of debt problem relate to both the nature of the economy and the economic policies put in place by the government. He articulated that the developing economies are characterized by heavy dependence on one or few agricultural and mineral commodities and export trade is highly concentrated on the other. The manufacturing sector is mostly at the infant stage and relies heavily on imported inputs. He stated that they are dependent on the developed countries for supply of other input and finance needed for economic development which makes them vulnerable to domestic shocks.

Aluko and Arowolo (2010) pointed out that the major cause of the debt crisis situation in Nigeria is the fact that these foreign loans are not being used for developmental purposes. Instead of being ventured into capital projects that will better the economy, they are shrouded in secrecy. According to Osinubi and Olaleru (2016), the factors that led to Nigeria's domestic debt burden can be grouped into six areas; Inefficient trade and exchange rate policies. Both the trade and exchange rate (monetary) policies were not quick enough to respond to show the domestic value of the naira at a time when there was a downturn in the oil market which led to a

reduction in the flow of resources into the economy. This led to embarking upon foreign borrowing and in turn the accumulation of domestic debt.

The matter of domestic debt has become a major impediment to the growth and stability of developing countries. Economists have therefore chosen to explore the channels through which the effects of domestic debt burden are realized and have come up with two competing theories namely the debt overhang theory and the crowding-out effect theory. Debt-overhang occurs when a nation's debt is more than its debt repayment ability. Krugman (2008) explains debt overhang as one whereby the expected repayment amount of debt exceeds the actual amount at which it was contracted. Sulaiman and Azeez (2012) also defined debt overhang as one where the debtor nation benefits very little from the returns on additional investment due to huge debt service obligations. The "debt overhang effect" comes into play when accumulated debt stock discourages investors from investing in the private sector for fear of heavy tax placed on them by government. This is known as tax disincentive. The tax disincentive here implies that because of the high debt and as such huge debt service payments, it is assumed that any future income accrued to potential investors would be taxed heavily by government so as to reduce the amount of debt service and this scares off the investors thereby leading to disinvestment in the overall economy and as such a fall in the rate of growth (Ayadi and Ayadi, 2011).

In addition, Clement et al (2013) stated that domestic debt accumulation can promote investment up to a certain point where debt overhang sets in and the willingness of investors to provide capital starts to deteriorate. Obudah and Tombofa (2013) relates the concept of debt overhang to Nigeria's debt situation. He stated that the debt service burden has prevented rapid growth and development and has worsened the social issues. Nigeria's expected debt service is seen to be increasing function of her output and as such resources that are to be used for developing the economy are indirectly taxed away by foreign creditors in form of debt service payments (Ekperiware et al, 2012). This has further increased uncertainty in the Nigerian economy which discourages foreign investors and also reduces the level of private investment in the economy.

Clements, Bhattacharya and Nguyen (2013) observe that aside from the effect of high debt stock on investment, domestic debt can also affect growth through accumulated debt service payments which are likely to "crowd out" investment (private or public) in the economy. The crowding-out effect refers to a situation whereby a nation's revenue which is obtained from foreign exchange earnings is used to pay up debt service payments. This limits the resources available for use for the domestic economy as most of it is soaked up by domestic debt service burden which reduces the level of investment. Ayadi and Ayadi (2011) opined that the impact of debt servicing

of growth is damaging as a result of debt-induced liquidity constraints which reduces government expenditure in the economy. These liquidity constraints arise as a result of debt service requirements which shift the focus from developing the domestic economy to repayments of the debt. Public expenditure on social infrastructure is reduced substantially and this affects the level of public investment in the economy.

Furthermore, some researchers have come up with other ways through which domestic debt may affect economic growth. According to Adesola (2014) domestic debt affects growth through the credit rationing effect which is a condition faced by countries that are unable to contract new loans based on their previous inability to pay.

### **Theoretical Framework**

The Dual-gap theory : Omoruyi (2015) stated that most economies have experienced a shortfall in trying to bridge the gap between the level of savings and investment and have resorted to domestic borrowing in order to fill this gap. This gap provides the motive behind domestic debt as pointed out by (Chenery, 1966) which is to fulfill the lack of savings and investment in a nation as increases in savings and investment would vis-à-vis lead to a rise in economic growth (Hunt, 2012). The dual-gap analysis is provides a framework that shows that the development of any nation is a function of investment and that such investment requires domestic savings which is not sufficient to ensure that development take place (Obudah and Tombofa (2013). The dual-gap theory is coined from a national income accounting identity which connotes that excess investment expenditure (investment-savings gap) is equivalent to the surplus of imports over exports (foreign exchange gap).

The Dependency Theory : The dependency theory seeks to outline the factors that have contributed to the development of the underdeveloped countries. This theory is based on the assumption that resources flow from a “periphery” of poor and underdeveloped states to a “core” of wealthy states thereby enriching the latter at the expense of the former. The phenomenon associated with the dependency theory is that poor states are impoverished while rich ones are enriched by the way poor states are integrated into the world system (Todaro, 2013; Amin, 1976).

Dependency theory states that the poverty of the countries in the periphery is not because they are not integrated or fully integrated into the world system as is often argued by free market economists, but because of how they are integrated into the system. From this standpoint a common school of thought is the bourgeoisie scholars. To them the state of underdevelopment and the constant dependence of less developed countries on developed countries is as a result of their domestic mishaps. They believe this issue can be explained by their lack of close integration, diffusion



of capital, low level of technology, poor institutional framework, bad leadership, corruption, mismanagement, etc. (Momoh and Hundeyin, 1999). They see the underdevelopment and dependency of the third world countries as being internally inflicted rather than domestic ly afflicted. To this school of thought, a way out of the problem is for third world countries to seek foreign assistance in terms of aid, loan, investment, etc, and allow undisrupted operations of the Multinational Corporations (MNCs). Due to the underdeveloped nature of most LDC's, they are dependent on the developed nations for virtually everything ranging from technology, aid, technical assistance, to culture, etc. The dependent position of most underdeveloped countries has made them vulnerable to the products of the Western metropolitan countries and Breton Woods institutions (Ajayi, 2000). The dependency theory gives a detailed account of the factors responsible for the position of the developing countries and their constant and continuous reliance on domestic for their economic growth and development.

### **Empirical Review**

Sulaiman and Azeez (2012) carried out a study on the effect of domestic debt on the economic growth of Nigeria. Annual time series data covering the period from 1970-2010 was used. The empirical analysis was carried out using econometric techniques of Ordinary least squares (OLS), Augmented Dickey-Fuller unit root test, Johansen Co-integration test and error correction method. The co-integration test shows long-run relationship amongst the variables and findings from the error correction model revealed that domestic debt has contribute positively to the growth of the Nigerian economy. In addition the study recommends that the Nigerian should ensure political and economic stability so as to ensure effective debt management. An empirical investigation conducted by (Audu, 2014) examines the impact of domestic debt on the economic growth and public investment of Nigeria. The study carried out its analysis using time series data covering the period from 1970-2012. The Johansen Co-integration test and Vector Error correction method econometric techniques of estimation were employed in the study. The study concluded that Nigeria's debt service burden has had a significant adverse effect on the growth process and also negatively affected public investment.

Ogunmuyiwa (2011) examined whether domestic debt promotes economic growth in Nigeria using time-series data from 1970-2007. The regression equation was estimated using econometric techniques such as Augmented Dickey-Fuller test, Granger causality test, Johansen co-integration test and Vector Error Correction Method (VECM). The results revealed that causality does not exist between domestic debt and economic growth in Nigeria. Ayadi and Ayadi (2011) examined the impact of the huge domestic debt, with its servicing requirements on economic growth of the Nigerian and South

African economies. The Neoclassical growth model which incorporates domestic debt, debt indicators, and some macroeconomic variables was employed and analyzed using both Ordinary Least Square (OLS) and Generalized Least Square (GLS) techniques of estimation. Their findings revealed that debt and its servicing requirement has a negative impact on the economic growth of Nigeria and South Africa.

Faraji and Makame (2013) investigated the impact of domestic debt on the economic growth of Tanzania using time series data on domestic debt and economic performance covering the period 1990-2010. It was observed through the Johansen co-integration test that no long-run relationship between domestic debt and GDP. However the findings show that domestic debt and debt service both have significant impact on GDP growth with the total domestic debt stock having a positive effect of about 0.36939 and debt service payment having a negative effect of about 28.517. The study also identified the need for further research on the impact of domestic debt on foreign direct investments (FDIs) and domestic revenues. Safdari and Mehrizi (2011) analysed domestic debt and economic growth in Iran by observing the balance and long term relation of five variables (GDP, private investment, public investment, domestic debt and imports). Time series data covering the period 1974-2007 was used and the vector autoregressive model (VAR) technique of estimation was employed. Their findings revealed that domestic that has a negative effect on GDP and private investment and public investment has a positive relationship with private investment.

Ejigayehu (2013) also analyzed the effect of domestic debt on the economic growth of eight selected heavily indebted African countries (Benin, Ethiopia, Mali, Madagascar, Mozambique, Senegal, Tanzania and Uganda) through the debt overhang and debt crowding out effect with ratio of domestic debt to gross national income as a proxy for debt overhang and debt service export ratio as a proxy for debt crowding out. Panel data covering the period 1991-2010 was used. The empirical investigation was carried out on a cross-sectional regression model with tests for stationarity using Augmented Dickey Fuller tests, heteroskedasticity and ordinary regression. The concluding result from estimation showed that domestic debt affects economic growth through debt crowding out rather than debt overhang.

In their study on domestic debt relief and economic growth in Nigeria, Ekperiware and Oladeji (2012) examined the structural break relationship between domestic debt and economic growth in Nigeria. The study employed the se o quarterly time series data of domestic debt, domestic debt service and real GDP from 1980-2009. An empirical investigation was conducted using the chow test technique of estimation to determine the structural break effect of domestic debt on economic growth in Nigeria as a result of the 2005 Paris Club debt relief. The result of their findings revealed

that the 2005 domestic debt relief caused a structural break effect in the relationship between domestic debt and economic growth. Based on these findings they concluded that the domestic debt relief made available resources for growth-enhancing projects.

Amoateng and Amoaka (2012) the empirical study declared that there is a unidirectional and positive casual relationship between foreign debt service and GDP growth after excluding exports revenue growth for Africa and South of Saharan countries during 1983-2010. These people argued that whether indebtedness impacts on the economic activity of developing countries. It is also argued that if foreign loan are converted into capital and other necessary inputs, development will occur. On the other hand, if borrowing countries misallocate resources or divert them to consumption, the economic development is negatively affected. This study employs the frame work of granger. In doing so, six measure of indebtedness were used as proxies for the multiple mechanisms.

Aluko and Arowolo (2010) proclaimed that the domestic debt situation for number of low income countries, mostly in Africa has become extremely different. For these countries, the use of traditional mechanism of rescheduling and debt resection together with continued provision of confessional financing and purist of sound economic policies may not be sufficient to attain sustainable domestic debt levels within a reasonable period of time and without additional domestic support. Despite the efforts made by countries themselves and the commitment made by the international communities; they are failing behind in their endeavour to achieve the "Millennium Development Goals".

In yet another study showing an in-sight from cross-country regression analysis by Bakare (2011) on the impact of aid and domestic debt in growth and investment the regression result were suggestive of a series of interesting relationships. This then is to say as a result of the explanatory regression there is quite strong evidence of positive impact of aid both on the growth rate in GDP per capital and the investment rate. The study illustrated that the effects of debt of beyond finance to impact on the lives of vulnerable household. Given the limited domestic revenue available to government, the claims of foreign creditor reached alarming proportion while public sector domestic debt absorbs high percent of domestic revenues.

### **Research Methodology**

The study shall utilize secondary data for the period of 1990 to 2018, sourced from CBN statistical bulletin and National bureau of statistics. Time series data spinning from 1990 to 2018 shall be gathered on four explanatory variables e.g. Domestic Debt, External Debt, and Debt Servicing. Likewise Real Gross Domestic Product stands as the explained variable in this research work. The method that will be used for data

analysis by this study is based on the lift from the literature review on the influence of domestic debt on economy of a nation. As such Ordinary Least square Test was employed for data analysis.

The functional form of the model which specifics that real gross Domestic Product (RGDP) is a function of Domestic Debt, Domestic Debt, and Debt Servicing are formulated as follows:

$$RGDP = f(DDB, EXD, \text{ and } DBS) \quad (1)$$

For clarity purpose the model one above in equation (1) is stated in linear form as;

$$RGDP = \beta_0 + \beta_1 DDB + \beta_2 EXD + \beta_3 DBS \quad (2)$$

To make the equation Testable, we state the equation in econometric model.

$$RGDP = \beta_0 + \beta_1 DDB + \beta_2 EXD + \beta_3 DBS + \mu_t \quad (3)$$

By Log linearization the equation is thus:

$$RGDP = \beta_0 + \beta_1 \text{LogDDB} + \beta_2 \text{LogEXD} + \beta_3 \text{LogDBS} + \mu_t \quad (4)$$

Where: RGDP = Real Gross Domestic Product

DDB = Domestic Debt

EXD = Domestic Debt

DBS = Debt Servicing

$\mu$  = Error Term

$\beta_0$  = Intercept of Constant in the Model

$\beta_1 - \beta_4$  = Coefficients of the independent variables

The a priori Expectation is;  $\beta_1, \beta_2, \beta_3 > 0$

## Ordinary Least Squares

Dependent Variable: RGDP

Method: Least Squares

Date: 07/19/19 Time: 21:11

Sample: 1990 2018

Included observations: 29

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
C	38.73727	1973.460	1.962912	0.0613
DDB	9.833627	1.569499	6.265457	0.0000
EXD	-1.621683	1.005552	-1.612730	0.1199
DBS	0.006633	0.012970	0.511374	0.6138

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R-squared	0.975746	Mean dependent var	32372.72
Adjusted R-squared	0.972714	S.D. dependent var	35189.09
S.E. of regression	5812.709	Akaike info criterion	20.30504
Sum squared resid	8.11E+08	Schwarz criterion	20.49536
Log likelihood	-280.2706	Hannan-Quinn criter.	20.36323
F-statistic	321.8387	Durbin-Watson stat	0.496278
Prob(F-statistic)	0.000000		

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Source: E-views 9.0

The table above shows the summary result of Ordinary Least Squares. It captures the effects of the independent variables on Real Gross Domestic Product (RGDP) which is the dependent variable. From the table, the coefficient of determination  $R^2$  is 0.975 which means that the independent variables can account for about 97.5% variations in the dependent variable using the model, and the adjusted  $R^2$  is 0.972. To establish the goodness of the model in the line of best fit, we consider the  $f$ -statistics. The  $f$ -statistics with a value of 321.8387 suggests that the model should be well considered. The short-run relationship of the variables as also shown by the table above indicates that Domestic Debt (DDB) with a coefficient value of 9.833627 exhibit a positive relationship with RGDP. DDB is observed to be statistically significant at 5% level. External Debt (EXD) also exhibited a negative relationship with RGDP in the short-run with a coefficient value of -1.621683. For Debt Servicing (DBS) with a coefficient value of 0.0066, the result show a positive relationship with RGDP.

### Discussion of Findings

Study over the years on the effect of domestic debt on Nigerian economy variables and economic growth has aroused the interest of many scholars, even though the empirical results from a number of these studies are heterogeneous in terms of uniformity. Our finding from the analysis show that of the three independent variables tested, only Domestic Debt (DDB) and Debt Servicing (DBS) exhibited positive relationship with economic growth proxy by Real Gross Domestic Product (RGDP), while External Debt (EXD) shows a positive but insignificant relationship with Real Gross Domestic Product (RGDP). However, while Domestic Debt (DDB) showed a positive and significant relationship with economic growth proxy by Real Gross Domestic Product (RGDP), Debt Servicing (DBS) exhibited positive relationship and insignificant effect with economic growth proxy by Real Gross Domestic Product (RGDP).

The implication of this relationship is that an increase in Domestic Debt (DDB) and Debt Servicing (DBS) will increase the Real Gross Domestic Product. However,

our result with positive coefficients for Domestic Debt (DDB) and Debt Servicing (DBS), indicates that if they are increased, can also increase economic growth. External Debt (EXD) on the other hand exhibited a positive but insignificant relationship with Real Gross Domestic Product (RGDP). This means that government External Debt (EXD) has not contributed to meaningfully to the economy.

The study being both quantitative and explanatory brought to bear the effect of domestic debt on Nigerian economy. The study employed a multiple regression model which enable the prediction of the relationship between the regressors and the regressand. The coefficients of the predictors at 5% level of significance were mixed, i.e. both negative and positive showing the extent of relationship between the variables.

The ordinary Least squares result reveals that the relationship between Real Gross Domestic Product (RGDP) and Domestic Debt (DDB) has a coefficient of 9.8336. The relationship is statistically significant at 5% level. Debt Servicing is positively related to Real Gross Domestic Product (RGDP) with a coefficient of 0.0066. The relationship at 5% of level is statistically insignificant with a p-value of 0.6138. Another finding from the study is that External Debt (EXD) related with Real Gross Domestic Product (RGDP) positively with a coefficient of -1.6216. At 5% level, the result is statistically insignificant as the p-value of 0.6138 is lower than the acceptable 5% significant level.

## **Conclusion and recommendations**

This study examines the effect of domestic debt on Nigerian economy for the period of 1990 – 2018. Various statistical tests were carried out. The result for the p-values of the test showed that not all the p-values all exceeded the critical 0.05 value at 5% significance level which suggests the rejection of the null hypothesis for the respective hypothesis tests. The main finding of the study reveal that Domestic Debt (DDB) and Debt Servicing related positively with the Real Gross Domestic Product (RGDP) at 5% level. This positive relationship observed is in line with a priori expectation. However, on Domestic Debt has a significant relationship with Real Gross Domestic Product. For External Debt (EXD), a negative relationship is observed which is adverse to a priori expectation. In conclusion, though, the research evidence have shown mixed findings for several economies, with regards to the Nigerian Debt Management, a key challenge is the utilization of the borrowed fund in the system resulting from the unbridled national malfeasance on both the debt management agencies and regulation authorities. There is a need to take steps in reduce the reduction in adequate utilization in the nation. Finally, the debt financing activities of the country is needed to be structured for a balanced strategic form to embrace all facets that made up the debt market as in the developed countries and nations in order to attract foreign investors to the market.

In line with the issues raised in the findings of this study, we thus recommend the following for policy implementation: There should be a committed effort by government to reduce under-utilization of borrowed fund through financial probe, with sanction implemented to save the future. Government should create an effective and favourable socio-political environment with facilities that will attract more investment into the country. More diversified investment instruments should be created that will appeal to the needs of more investors over time.

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