The Impacts of Domestic Debt on Economic Performance in Nigeria (1970 - 2013)

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Abstract

Nigeria, like many developing economies, is plagued by increasing government expenditures, unmatched by government revenues. This has resulted in the need for government borrowing. Hence, an investigation of the impacts of National Debt on Economic performance is highly essential. This research work examined the impact of Domestic Debt on Economic performance in Nigeria. The data used were secondary source and the period of analysis covered 1970 – 2013. The models were estimated via the least square(s) method to ascertain the relationship between Domestic Debt and Economic growth, Inflation and Unemployment, after stationary test was conducted on the data. Multiple regression analysis was used to analyze the effect of Domestic Debt on inflation, Economic growth and unemployment. Domestic debt has a negative but insignificant impact on economic growth in Nigeria, Domestic debt also has a negative impact on unemployment, and however, the relationship is not statistically significant. The result also shows that there exist a positive and significant relationship between Domestic debt and inflation in Nigeria in the period under consideration. Hence, for national debt to benefit the economy, it must be a productive debt and an efficient debt management scheme should be put in place.

Keywords: Domestic Debt, Economic growth, Unemployment, Inflation, cointegration, Stationary.

1. Introduction

The failure of the market to allocate resources efficiently provided a reason for considering other supplementary mechanisms for allocating resources directly, (e.g. public provision of goods and services) or for considering corrective devices that can interfere with the price mechanism so as to induce the market to function more effectively and efficiently in resource allocation. This has resulted in the intervention of government in the allocation of resources, through the provision of public goods and services. To be able to carry out this role effectively, government has to incur some expenditure.

Nigeria, like many developing economies, is plagued by increasing government expenditures, unmatched by government revenues. This has resulted in the need for government borrowing. Government borrowing becomes indispensable when the conventional revenue sources (tax and non-tax) are inadequate in financing government expenditures. Borrowing is needed by the government to cover fiscal deficit in order to boost domestic investment and hence accelerate economic growth and development.

Debt connotes a situation in which a borrower collects something from the lender promising to pay equivalent at a later date. Debt can be of two types: private and public. It is private when the borrower is a private individual and public when the borrower is the government. Public debt can either be sourced internally or externally. Internal source involves the borrowing of funds from the citizens of the Country through the issuing of government securities; while external source involves the borrowing of funds from other countries and, or international organizations like the London Club, Paris Club, the International Monetary Fund (IMF), World Bank, etc.

The profile of the Nigerian domestic debt seems to have reached a stage of serious concern to Nigerian policy makers and scholars and constitutes an important element of economic agenda.

Nigeria's oil came on the economic scene in 1970, when Nigeria became a member of the oil producing nations. From then on, oil became the catalyst element in Nigeria's growth process. Nigeria benefited immensely from the sharp price increase in 1973/1974 and again in 1979/1980. By 1976, oil had become the major source of government revenue and the foreign exchange earner of over 80 percent in both cases (Ajayi,1991). The economy witnessed a substantial in flow of resources through oil exports. This period was characterized by rapid growth of oil revenue, while the rate of growth of non-oil revenue was relatively low. From barely N634 million in 1970, the federally collected revenue jumped to N15.2 billion in 1980 and leaped by more than a factor of four in 1990 when it stood at about N67 billion. In general, the relative share of oil revenue in total revenue on an annual basis since 1975 has been more than 75 per cent. The annual average growth of oil revenue and non-oil revenue was 114 and 23 percents respectively; during this period. This recorded growth rate was largely due to the impact of the favorable terms of trade of oil export experienced particularly in 1971 and the period of the first positive oil shock (1973-1974) on government revenue. This led the total revenue to grow by 63 per cent.

Consequent upon the large revenue from oil, its relative importance increased at the expense of other sectors. These revenues provided the basis for significant increases in government expenditure designed to

expand infrastructure and to improve the non-oil production capacity of the economy.   Nigeria's journey into domestic debt dates back to 1948 (Gbosi, 1998). It was in that year that the first development stock of five hundred thousand naira (N500, 000) only, was floated in Nigeria. But the first treasury bills and treasury certificates worth eight million naira (N8, 000,000) and twenty million naira (N20,000,000), respectively were issued in 1960 and 1968. The First National Development Program dated (1962-1968) envisaged 50% of planned expenditures to be financed from foreign sources. It turned out that foreign loan constituted only 25% of realized capital investment. Government had to fall back on domestic sources for provision of needed funds to finance development.

Nigeria's total domestic debt outstanding stood at only 1.1 billion in 1970. It rose steadily to N8.2 billion in 1980. Thereafter, it sky rocketed to N84.1 billion in 1990. In tune with increased levels of budgetary deficits, the profile of this debt ballooned to about N898.2 billion in 2000 before reaching N1,525.91 billion as at the end of December, 2005. As at October 2010, Nigeria's domestic debt stood at $21.8 billion having risen from $17.7 billion in 2009. Rapid expansion programs and changes in the macroeconomic environment are some of the factors identified as the major causes of the astronomical increases in Nigeria's domestic debt level. This is so as, resources are scarce and governments over the world hardly have enough funds to pay for all that they need, thus borrowing from internal sources becomes a veritable instrument for business transactions.

Nigeria has found itself in a situation in which the magnitude of its domestic debt and its servicing obligations is posing serious problems to both the government and the creditors (the public), in the sense that the debts are accumulated at a fairly rapid pace far in excess of the nation's capacity to repay. This domestic debt crisis had persisted despite some policy measures taken to ameliorate it. The manifestation of this domestic debt crisis is evident in the ever increasing level of unemployment, skyrocketing inflation, capacity under utilization and over dependence on the oil sector among others.It therefore, seems obvious that Nigeria cannot attain economic development without taking into consideration the effects of domestic debt on the economy.

This study intends to assess the effect of domestic debt on Nigeria's economic performance. The attainment of economic development is paramount to every nation. To be able to achieve this, there is need to have viable macroeconomic policies which refer to actions taken by government agencies responsible for the conduct of economic policies to achieve some desired objectives through the manipulation of a set of macroeconomic variables; one of which is domestic debt.   The paper is divided into five sections. Section one is the introduction and two is conceptual issues and Literature Review. Section three examines facts on Domestic debt in Nigeria, while Methodology and Empirical analysis is in section four. Section five draws the conclusion and recommendations.

2.0 Literature review
2.1 Conceptual Issues
Domestic Debts are debts that originate from within a country. They are usually contracted through debt instruments such as treasury bills, treasury certificates and treasury bonds. Others are development stocks, FGN bonds and Promissory notes**.** Briefly, we will elucidate herein on the conceptual framework surrounding domestic debts and economic growth in Nigeria.

Treasury bills are debt instruments used by the federal government to borrow funds for short periods of about three months pending the collection of its revenues. Treasury bills were first introduced in UK in the days of Walter Bagehot (1877), and at that time were modeled as commercial bills. Here in Nigeria, on the strength of the Treasury bill Act of 1959, No 11 which came into effect on the 19th of March 1959, the fist public issue of TB in Nigeria was made on April 7, 1960. The success achieved encouraged further issues of this monetary instrument (Anyanfo: 1993). Presently, the allotment of treasury bills are issued by an auction– based system and in multiples of =N=1000.00 per tender .Usually, subscriptions are sold through an authorized dealer.

Treasury certificates are medium term government securities which have a maturity of between one to two years. It serves as bridge between treasury bills (Short term instruments) and long term government stocks. Treasury certificates were introduced in Nigeria in 1968 and are similar to treasury bills in all respects, except that the tenure is different. Both instruments are eligible for rediscount at the secondary market.Treasury certificates have played a major role in the development of the money market in Nigeria. The instrument has also assisted government in meeting its financial needs, especially during the civil war years and the reconstruction period of the 1970's. Further issues were suspended in 1975 due to excess liquidity in the system occasioned by the oil boom. The TC.s were again introduced in 1976 as a result of pressure on government finances.

Treasury bonds emerged towards the end of 1989 when the monetary authorities of Nigeria decided to convert =N=11.35 billion of maturing treasury bills into 5% denominated treasury bonds with maturity profile in excess of ten years. Treasury bonds came not as a result of issuance of new instruments by that name but as an integral aspect of internal debt management strategy aimed at stretching debt maturity profile. The import of this concept is that the instruments are not eligible to be traded at the money market and cannot serve as an instrument for open market operations. The major objective of treasury bonds is to provide a cost effective

source of deficit financing for the government and to seek to minimize debt service obligations in government debts occasioned by the high level of deficit financing by the government .(Nzotta :2004)

Development stock is fairly long term debt instruments issued by the CBN on behalf of the federal government. They have fixed rates of return and definite maturity. In an attempt to improve the liquidity and profitability of banks, the central bank classified government development stocks of less than 3 years to maturity as eligible liquid assets for the purpose of computing the liquidity of banks. This move further broadened the scope of activities in the money market. (Nzotta: 2004).

FGN Bonds are debt securities (liabilities) of the federal government of Nigeria issued under the authority of Debt Management Office (DMO) and listed on the Nigerian stock exchange. The FGN has an obligation to pay the bondholder the principal and agreed interest as they fall due. A bond holder has simply lent to the federal government for a specified period of time. The FGN bond is considered as the safest of all investments in domestic currency securities market because it is backed by the full faith and credit of the federal government. They have no default risk, meaning that it is virtually certain your interest and principal will be paid as and when due. The income thus earned is exempt from state and local taxes. The minimum subscription of FGN Bond is =N=10,000.00 + multiples of =N=1000.00 thereafter .Most FGN Bonds have fixed interest rates which are paid semi-annually. Tenor of an FGN Bond is for a minimum of two years. (www.dmo.gov.ng)

Promissory notes are documents stating that a person promises to pay another a specified sum at a certain date. Since it is a negotiable instrument, it is very similar to a bill of exchange. By virtue of the Government Promissory Notes Act 1960 No 6, the federal government of Nigeria can raise domestic public loans via this source.

2.2 Empirical review

In the words of Gurley and Shaw (1956), mounting volume of public debt is a necessary feature of a strong and healthy financial structure of an economy. Therefore some secular increase in public debt should be planned by every government of a market – oriented economy. However, it appears that no government plans a long term increase in debt. The volume of public debt has tended to increase in response to compulsions of the moment. We must note here the false view that a country that borrows is automatically immersed in the debt burden.

This false conclusion was clarified by Queientin (1984) that indebtedness amounts to a problem, if a country couldn't afford to repay its debt. To him, the key is the cost of debt servicing which includes the repayment of principal and interest due on the loan. He justified borrowing as arising from increased government expenditure on development programmes without generating an additional income to finance it.

Ahmed (2004) reflected the causes of debt problem as related 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. To him, they are dependent on the developed countries for supply of other input and finance needed for economic development, which made them vulnerable to external shocks.

Seidman (1986) in her study of the Zimbabwean economy between the 1970s and 1980s reveals that the case of Zimbabwe provides some evidence as to the impact of domestic borrowing as well as other factors on inflationary pressures. The evidence suggests that increased public debt, primarily directed to non-productive sectors of the economy, leads to rising prices. At the same time, the central bank's efforts to control inflation by rising interest payments imposes an increasing burden in taxpayers, while channeling additional funds to the financial sector; and tends to hinder small business efforts to expand output.

Sanusi (2008), was of the view that faulty domestic policies which range from project financing mismatch, inappropriate monetary and fiscal policies was responsible for domestic borrowing problem. He believes that some of the policies were of little significance because of the perceived temporary effect of the external shocks. The expansionary policies, he believes, led to stupendous macroeconomic fallout, which encourage import and discourage export production.

Ajayi (2009) traces the origin of Nigeria's debt problems to the collapse of the international oil price in 1981 and the persistent suffering of the international oil market and partly due to domestic lapses. As a result of the debt problem, credit facilities gradually dried up, which led to a number of project getting stalled. He advocated the revival of the economy growth as the best and most durable solution to the debt burden. The needed growth, however, is disturbed by two factors, which include, limitation imposed by inappropriate domestic policies and the external factors, which are beyond the control of the economy.

Gbosi (1998), opined that borrowing by government from the domestic economy became the main source of financing government expenditure due to the collapse in prices of oil in the international market. He asserts that despite the various efforts made by the government to rationalize public expenditure, much success has not been achieved in reducing its spending and this has continuously raised the size of the domestic debt.

Christensen (2004) employed a cross country survey of the role of domestic debt market in sub-

saharan African based on a new data set of 27 sub-saharan African countries during the 20 year period (1980 – 2000), he finds out that domestic debt markets in these countries are generally small, highly short term and often have a narrow investors base. He also discovered that domestic interest rate payment present a significant burdens to the budget, despite much smaller domestic debt than foreign indebtedness. He did not stop at that, he further revealed that, the use of domestic debt is also found to have significant crowd out effect on private investment.

     Anyanwu and Erhijakpor (2005) investigated the growth effects of the current domestic debt outstanding as a ratio of GDP and the growth effects of the past domestic debt accumulation using recently revised Nigerian time series data for the period, 1970-2003. Their analysis showed that current domestic debt outstanding as a ratio of GDP has a significantly negative effect on economic growth, due largely to high domestic implicit interest rates. On the other hand, past domestic debt accumulation positively and significantly affects economic growth. Also the findings show that the level of investment does not appear to be the main channel through which current domestic debt reduces economic growth, showing that the prospects of future taxation necessary to repay the debt distort the allocation of investment- even when the level of investment is the same, its quality is indeed lower.

     Asogwa (2005), employing a more comprehensive technique in investigating the effect of domestic debt on economic growth concluded that domestic government debt in Nigeria has continued to suffer from lack of confidence crisis as market participants have consistently shown greater unwillingness to hold longer maturities. The government has only been able to issue more of short-term debt instrument.

     James (2006) opined that public debt has no significant effect on the growth of the Nigeria economy because the fund borrowed were not channeled into productive ventures, but diverted into private purse. He suggested further, that, for the gains of the debt forgiveness to be realized the War Against Corruption should be fought to the highest.

     Oshadami (2006) in her own study concluded that the growth of domestic debt has affected negatively the growth of the economy. This situation is premised on the fact that majority of the market participant are unwilling to hold longer maturity and as a result the government has been able to issue more of short term debt instruments.

     This has affected the proper conduct of monetary policy and affected other macroeconomic variables like inflation, which makes proper prediction in the economy difficult

     Adofu (2010) in his study found out that domestic debt has affected the growth of the economy negatively. He recommended that government domestic borrowing should be discouraged and that increasing the revenue base through its tax reform programmes should be encouraged.

2.3. Theoretical Framework

According to Likita (2000), Government borrows in order to close the resource gap between savings and investment. The absence of adequate savings creates a difference between the actual level of required domestic savings for investment and actual investment. The low savings can be seen as a constraint to investment because the mechanism where savings translate itself into investment will not exist; therefore conscious effort must be made by the government to eliminate such gap. Adam Smith (1776) attributes Public debt to three influences:- first, the desire of the government official to spend, second, the unpopularity of increasing taxes, and thirdly, the willingness of capitalist to lend. In this way he sees the government debt as accompany of commercial or capitalist society. Adam Smith said that increasing deficits would in the long run probably ruin the great nation. That government borrowing encourages wastes during peace and leads to reckless waging of war. Debt results in higher taxes and inflation which rewards spending-tariffs and pushes savers. It weakens the productive capacity of the people and eventually weakens or destroys even the wealthy nation. In the opinion of Karlmax (1883) Debt results in the exploitation of labour which creates a class of laziness, and it results in the central banks who granted special privileges in return for lending to state. It encourages higher taxation and tax collectors in order to pay the national debt. Rudger Dombush and Stanley Fisher (1978) also pointed that, the national debt is a direct consequences of past deficit in the Federal budget. The national debt increases when there is a budget deficit and decreases when the economy experience budget surplus. They came up with the following equation for budget deficit:- DF = (Go + R) – T = BUS; where DF is budget deficit, Go is government spending on goods and services, T is spending on transfer, BUS is budget surplus, and (Go + R) is total government spending. The above theories reveal that the relationship between Domestic debt and growth is negative.

3.0   Research methodology

Many previous researches use cross sectional data in investigation the effects of Domestic Debts on the economy. In this work, Annual time series data of variables are used. In order for the impact of Domestic Debts on the economy to be sustainable, stationary of the data will be checked i.e. the data will be tested for unit root by using the Augmented Dickey – Fuller (ADF) text. This is to prevent spurious regression. Then we test for co-

integration with the use of Johansen (1988) technique. Multiple regression analysis with a dependent variable and some independent or explanatory variables will be employed. Estimates are obtained by employing Least Square method (OLS). Correlation Analysis will be used to determine the nature and strength of relationship between the dependent and independent variables. t-statistics and F test will be used to carry out statistical significance at 95% confidence level. Coefficient of multiple determination (R^2) will also be used to judge the strength of the estimated regression equation. Also, Durbin Watson statistic will be used to test for the presence of serial correlation (Autocorrelation), which is also common in time series data.

3.1 Statement of hypothesis

As earlier stated, the utmost aim or objective of this study is to examine the impact of Domestic Debt on the Nigeria Economy (i.e RGDP and Unemployment rate). In line with the above objectives, the hypothesis were stated thus:

H_O: There is no significant relationship between Domestic Debt and Gross Domestic Product (GDP).

H_O: there is no significant relationship between Domestic Debt and Unemployment rate.

H_O: there is no significant relationship between Domestic Debt and Inflation.

3.2 Models specification

Although, the impact of Domestic Debt on Nigeria economic growth is far from conclusive, there seems to be some consensus as to the core impact of Domestic debt on an Economy. Adofu (2010) in his study found out that domestic debt has affected the growth of the economy negatively. He recommended that government domestic borrowing should be discouraged and that increasing the revenue base through its tax reform programmes and industrialization should be encouraged. According to Charles (2010), the welfare implication of domestic debt is the unemployment rate increase due to the closure of industries and that. It's also believe that large internal domestic debt tend to crowd out private investment due to high cost of investable fund.

Following Charles at al (2010) Domestic Debt & Economic growth model, and Adofu (2010) Growth determinant, and Anthony (2011) Capital flow determinants, a general empirical models of the impact of Domestic Debt on Nigerian economy can be put as

Model 1

GDP =F (DD, M_2, EXCHR, CPS, FD)

Where

GDP = Gross Domestic Product, Serving as proxy for Economic Growth.

DD = Domestic Debt as percentage of GDP

M_2 = Broad Money Supply as percentage of GDP

EXCHR = Naira Exchange Rate to the \$US

CPS = Credit to private sector

FD = Fiscal Deficit as percentage of GDP

Specifically, the postulated model is

GDP = B_o + B_1DD + B_2M_2 + B_3EXCHR + B_4FD + B_5CPS + U equation (1)

Where

GDP = Dependent Variable

DD, M_2, EXCHR, FD, CPS = Independent variables

U = Error term

B_O, B_1, B_2, B_3, B_4, B_5 = Parameters to be estimated

Model 2

UNEMP =α_0 + α_1DD + α_2 INF + a_3EXCHR + a_4M_2 + a_5GCEXP +

a_6 GDP + a_7CPS + a_8FD + a_9GDP + a_{10}INTR + U   equation (2)

Where

UNEMP	=	Unemployment Rate
DD	=	Domestic Debt as percentage of GDP
GCEXP	=	Government Capital Expenditure
GDP	=	Gross Domestic Product
EXCHR	=	Naira Exchange Rate
INF	=	Inflation Rate
M_2	=	Money Supply
CPS	=	Credit to Private Sector
INTR	=	Interest Rate
FD	=	Fiscal Deficit
U	=	Error term
The Dependent variable	=	Unemployment rate

While DD,   GEXP, GDP, EXCHR, INF, M$_2$,CPS, FD, INTR,are the independent
variables. α_o, α_1, α_2, a_3, a_4, a_5, a_6…. are the parameters to be estimated.

Model 3

INFL =δ_0 + δ_1GTEXP+δ_2DD + δ_3M$_2$ + δ4INTR + δ5CPS +δ6FD + U ..Equation (3)

Where

INFL = Inflation rate

GTEXP= Government total expenditure

DD= Domestic Debt

M$_2$= Money Supply

INTR= Interest rate

CPS = Credit to private sector

U = Stochastic error term

INFL is the dependent variable, while GTEXP,DD, INTR, CPS and M$_2$ are the independent variable.

All variables in the above models have been selected on the basis of how frequently they were cited in previous applied studies and how important they were. Charles (2010), Asiedu (2002), Anthony (2011).

Model (1) is developed from the direct relationship some studies have found between Debt (foreign and domestic) and economic growth especially in developing countries Ajayi (2005), Charles (2010). The expected sign for the coefficient of DD is positive according to the modernization hypothesis but uncertain according to the dependency hypothesis.

ß$_0$ = Intercept. ß$_1$, ß$_2$, ß$_3$, ß$_4$, ß$_5$, are coefficient of the explanatory variable. They show the extent and the direction of relationship between dependent variable (GDP) and the Independent variables.

However, the expected sign of M2 is uncertain depending on the way it is managed in the economy. The coefficient of EXCHR is expected to be negative and that of CPS and FD should be positive.

From model (2) and (3) Unemployment and Domestic Debt are expected to be positively related Yakub (2005). According to Yakub Domestic Debt leads to reduction in capital accumulation which leads to high unemployment of labour. However, looking at the crowding out effects of Domestic Debt, Domestic debt should have a positive relationship with unemployment. The Dependency School Supported this view. According to Olokun (2001), Domestic Debt promotes inflation in the short-run through the increase in interest rate. Hence, Domestic Debt and inflation rate are expected to be positively related.

4.0 Empirical analyses

To achieve the stated objectives of the study, annual time series data of the variables were used. The data on DD, Exchange rate, GDP were sourced from the central bank of Nigeria statistical bulletin, while that of Inflation rate, Unemployment level, were sourced from National Bureau of statistic. The period covered by the study is 1981 – 2013. The choice of the period is informed by the development in the Nigeria economy.

In order for the impact of Domestic Debt on GDP growth to be sustained, (i.e. to be time invariant or stationary) we checked the time serial statistics of the included variables. The data were tested for unit root by using the Augmented Dickey Fuller (ADF) test.

4.1.1   Unit root test for stationarity

Non spatiality of time series data has often been regarded as a problem in empirical analysis. Working with non-stationary data can lead to spurious regression from which further inference is meaningless. The first step is therefore to test for stationarity of the data using Augmented Dickey Fuller unit root test:

Table 4.1: Augmented Dickey Fuller test for Unit Root [test for Stationarity (1981 – 2012)]

Variables	ADF Static	Critical Value 1%	Critical Value 5%	Critical Value 10%	Order of Integration
CPS	-5.798978	-3.6661	-2.9627	-2.6200	I(0)
DD	2.170617	-3.6661	-2.9627	-2.6200	1(0)
EXCHR	-1.499867	-3.6661	-2.9627	-2.6200	I(1)
FD	-1.737710	-3.6661	-2.9627	-2.6200	I(1)
GCEXP	-0.065416	-3.6661	-2.9627	-2.6200	I(1)
GDP	4.765653	-3.6661	-2.9627	-2.6200	I(0)
GTEXP	3.247246	-3.6661	-2.9627	-2.6200	I(0)
INFL	-3.222524	-3.6661	-2.9627	-2.6200	I(0)
INTR	-2.314832	-3.6661	-2.9627	-2.6200	I(1)
M$_2$	2.105850	-3.6661	-2.9627	-2.6200	I(0)
UNEMP	-2.792693	-3.6661	-2.9627	-2.6200	I(0)

From the result shown in table 4.1 above, almost all the variables are stationary i.e. integrated order Zero I(0) at 1% level. That is, almost all the variable have no unit roots. The only variables that have unit root

are INTR, EXCHR, GCEXP and FD; however, they are stationary at first difference: if a time series has a unit root, the first difference of such date are stationary (Gujarati 2007:820).

4.1.2   Test for co-integration

Differencing of variables to achieve stationarity leads to loss of long run properties. The concept of co-integration implies that if there is a long run relationship between two or more non stationary variables, deviation from this long run path are stationary. To establish this, the Johansen (1988) technique was used and we obtained the following results as shown in test 2 below.

Table 4.1.2 .A. Co integration test results
Series: CPS, DD, M2, EXCHR,FD,GCEXP,GDP

Eigen value	likelihood Ratio	5%critical Value	1% critical value	Hypothesized No. of CE(s)
0.991879	267.4670	94.15	103.18	None **
0.887287	123.0663	68.52	76.07	At most 1 **
0.670841	57.57913	47.21	54.46	Atmost 2 **
0.391951	24.24272	29.68	35.65	At most 3 **
0.266611	9.317720	15.41	20.04	At most 4 *
0.000512	0.015359	3.76	6.65	At most 5

*(**)   denotes rejection of the hypothesis at 5%(1%) significance level. L.R.test indicates 5 cointegrating equation(s) at 5% significance level.

Table 4.1.2 .B. Co integration test results
Series: GTEXP, INFL, INTR, M2, UNEMP

Eigen value	likelihood Ratio	5%critical Value	1% critical value	Hypothesized No. of CE(s)
0.781206	107.9145	68.52	76.07	None **
0.732656	62.32572	47.21	54.46	At most 1 **
0.354150	22.74916	29.68	35.65	Atmost 2 **
0.273187	9.633531	15.41	20.04	At most 3 **
0.002030	0.060957	3.76	6.65	At most 4 *

*(**)   denotes rejection of the hypothesis at 5% (1%) significance level. L.R.test indicates 5 co integrating equation(s) at 5% significance level.

4.2   Regression results

Based on the evidences from the co-integration test conducted in the previous section, the model was estimated using least square method.

Table 4.1: Regression results of model (1):
Dependent variable: LnGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXCHR	-0.0159	0.009	-1.867	0.0732
M_2	0.312	0.169	1.85	0.0757
FD	-0.315	0.078	-4.038	0.0004
CPS	-0.124	0.141	-0.878	0.3881
DD	-0.09961	0.0677	-1.473	0.1527
INTERCEPT	14.34	1.296	11.06	0.0000

R^2	0.7093	N = 32
Adjusted R^2	0.6534	K = 6
F-Statistics	12.69	Log likelihood = -52.03
D.W Statistics	0.7694	Akaike info Criteria = 3.627
		Schwart Criterion = 3.90

Table 4.2: Regression results of model (2):
Dependent variable: Unemployment Rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DD	-0.2989	0.4342	-0.6882	0.4985
INFL	0.06324	0.1069	0.5917	0.5601
INTR	-0.4142	0.5390	-0.7686	0.4503
GDP	3.0713	1.4312	2.1459	0.0432
EXCHR	-0.O2498	0.05827	-0.4287	0.6723
M_2	0.7459	1.1908	0.6263	0.5375
CPS	-0.6036	0.8718	-0.6924	0.4960
FD	1.0320	0.8393	1.2295	0.2319
GCEXP	-0.6855	0.7446	-0.9207	0.3672
INTERCEPT	-29.888	20.158	-1.4827	0.1523

R^2	0.5448	N = 32	
Adjusted R^2 F-	0.3585	K = 10	
Statistics	2.925	Log likelihood = -105.31	
D.W Statistics	1.65	Akaike info Criteria = 7.2	
		Schwart Criterion = 7.66	

Table 4.3: Regression results of model (3):
Dependent variable: Inflation rate

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DD	1.8539	0.7211	2.5711	0.0165
INTR	0.8283	0.7487	1.1063	0.2791
M_2	-2.2094	1.5481	-1.427	0.1659
CPS	1.4607	1.3538	1.0789	0.2909
FD	0.0546	1.5475	0.0353	0.9721
GTEXP	-1.3569	1.1741	-1.1557	0.2587
INTERCEPT	24.191	25.4970	0.9488	0.3518

R^2	0.3719	N = 32	
Adjusted R^2	0.2212	K = 7	
F-Statistics	2.467	Log likelihood = -128.848	
D.W Statistics	1.48	Akaike info Criteria = 8.49	
		Schwart Criterion = 8.8	

4.3.1 Interpretation of results

The result from model (1) presented above shows that the model is well behaved. The level of explanation of changes in GDP by EXCHR ,M_2, CPS, FD, and DD is very high as represented by the high value of Coefficient of determination (R^2). The adjusted R^2 also indicates that the model has good fit: 65.34% variation in GDP is explained by estimated regression line/equation. The F statistic is highly significant: comparing the F statistic (12.69) with the tabulated F at 5% level of significance and (4,26) degree of freedom 2.53, this shows that the model is statistically significant and all the estimates are significantly different from zero i.e. all explanatory variables (e.g. EXCHR,M_2,CPS,FD,DD) are good determinants of GDP in Nigeria.

Analysis of model (1) above indicates that linear relation consisting of both positive and negative relationship between Economic growth and its explanatory variables. In general, Domestic Debt, fiscal deficit, credit to private sector and Exchange rate have a negative relationship with the Nigerian economy, while money supply indicates a positive relationship. Domestic Debt, Exchange Rate, Money supply, and Fiscal deficit are statistically significant, Credit to private Sector is statistically insignificant even at 10 %.

Specifically from the model, a unit changes in Domestic Debt will lead to about -0.10 changes in GDP, holding other factors constant and this relationship is statistically significant even at 5 %. This results shows that the Domestic debt holding of government is far above a healthy threshold i.e government domestic debt profile has been rising astronomically and if not controlled could create some unfavorable consequences as crowding out of private sector investment, poor GDP growth etc, Okonjo- Iweala (2011).

Exchange rate has a negative and significant relationship with GDP which is theoretically in line. Reduction in exchange rate boasts exportation and discourages importation. It also induces Capital Inflow which has positive impact on GDP. Money Supply has a positive relationship with GDP. This relationship is theoretically in line with the view of the Monetarist. Increase in Money Supply increases aggregate demand and hence increase in output level (increase in GDP). The increase in Domestic debt by Government makes the

available investable fund to be inadequate for private sector investment, hence Credit to private sector has negative but insignificant impact on GDP (on the economy)

This regression results is reliable and statistically fit for policy recommendation, this is because there is no problem of serial correlation (i.e. no Auto correlation). The D.W Statistic is far from zero (using the principle d* = 2 (1-P^).The Akaike and Schwart tell us about the validity of the model. They show whether the model is well specified or not. It is believed that the lower the A/C and S/C, the better the model formulated. They are used to compare the forecasting performance of a model. From the regression result, the log (1) indicates the lowest A/C and S/C value of 0.149 and 0.403 respectively. Therefore we can conclude that the model is fit for forecasting.

Model (2) indicates that 54.48 % variation in unemployment is explained by the estimated regression line and this relationship is significant because the model is statistically significant using F- Statistic i.e all the explanatory variables are significantly different from Zero. There is a negative relationship between Domestic debt, interest rate, exchange rate, credit to private sector and Unemployment. While Fiscal deficit, Money supplies, inflation, GDP, inflation and Unemployment are positively related. Some of these relationships are significant while some are not significant. Specifically, Domestic debt has a negative relationship with Unemployment(a unit changes in Domestic debt will lead to about 0.30 unit changes in Unemployment, holding other factors constant), however this relationship is not statistically significant even at 10 %. This shows that money borrowed by government have not been used or channel into job creating projects, that is why Domestic debt does not have a significant effect on reduction in unemployment rate in Nigeria. Also, Government capital expenditure has a negative relationship with unemployment rate (a unit changes in government capital expenditure will lead to 0.69 changes in unemployment, holding other factor constant) this is theoretically in line. Government capital expenditure has the tendency to reduce unemployment rate through creation of social overhead capital. However this relationship is not statistically significant in the period under consideration. The results also indicate that GDP and Unemployment rate are positively related and this relationship is statistically significant. This shows that increase in GDP has not been able to reduce unemployment rate in Nigeria, Therefore, there is need to question the components of the GDP. The estimated equation also indicates that Credit to private sector has a negative relationship with unemployment rate.

There is no problem of autocorrelation since the Durbin Watson statistic is not close to zero (using the principle d* = 2 (1-P^)).

The result of model (3) shows that there is a positive relationship between Domestic debts, Interest rate, Credit to private sector, Fiscal Deficit and Inflation rate. While there exist negative relationship between Money supply, Government total expenditure and Inflation rate. Specifically, a unit changes in Domestic debt will lead to 1.85 unit changes in Inflation, holding other factors constant, and this relationship is significant at 5%.This shows that high Domestic debt has the tendency to create inflation through the increase in Interest rate. Also, a unit changes in Federal Fiscal Deficit will lead to about 0.06 changes in Inflation rate holding other factors constant and this relationship is not statistically significant even at 10%. This shows that fiscal deficit has the tendency to cause inflation. The model is not statistically significant since the F statistic is less than the theoretical, this is supported by low R^2 (37.19%). This indicates that Domestic debt, Interest rate, CPS, FD and GTEXP are not good determinants of inflation rate in the period under consideration.

4.4 Policy implications of findings
The study affirms that the level of debt has a negative effect on economic growth. Economically, debt and debt serving constitutes leakage on the proper functioning of an economy and also constitutes a barrier to growth when allowed to exist in an economy. Hence, government should minimize it debt profile through efficient debt management system and exploration of other sources of revenue. Also, there is need for more credit to be accessed by the private sector if significant impact on economic growth is to be achieved through the private sector channel. This can only be achieved through reduction in domestic debt so that the available investable fund can be fully channel to private sector investment. The Fiscal deficit operation by the government retards growth (due to low amount assigned to capital project) of the economy and should be handled with utmost precision.

In addition since Domestic debt has tendency of increasing unemployment rate through it crowding out effects, government should ensure that greater portion of the money borrowed be expended on job generating projects and not on recurrent expenditures. Also, the positive and significant relationship between GDP growth and Unemployment rate should be looked into by relevant authorities. And the problem of inflation in Nigeria cannot be checked through increase in Domestic debt.

5.0 Conclusion
The study shows that domestic debt has both positive and negative effects on Nigeria's economic development. It has positive effects on RGDP such that for every unit of domestic debt incurred, RGDP increases by 7.7%;

while it has a negative effect on unemployment which increases by 5.5%. This is attributed to the fact that domestic debt crowds out private investments and also that some of the domestic debt contracted were not utilized for productive activities/purposes that would have generated unemployment. Though the result shows that inflation reduces by about 3.3%, this is not linked to domestic debt as from the findings, there is no significant relationship between domestic debt and inflation. The reduction is attributed to the efforts of monetary authorities towards curbing inflation.

5.2 Recommendations

To alleviate the negative effect of domestic debt on Nigeria's economic development, the study makes the following policy prescription:

i. The rise in domestic debt profile in Nigeria is attributed to government extra budgetary activities, which most often are not used for the intended project. Commitment to budget should be encouraged for fiscal discipline on the part of the government and its agencies.

ii. Effective mechanism should be put in place to ensure that any new borrowing is judiciously utilized to contribute to economic development.

iii. Effort should be made by the government to settle the outstanding domestic debt. This will give room for proper conduct of monetary policy in the economy.

iv. It will be healthy if the government strives to finance budget deficit by improving on the present revenue base rather than resulting to domestic borrowing. This can be achieved by improving its revenue sources and efficient pursuit of tax reforms.

v. Finally, the government should increase her investment among others, on roads, energy, telecommunications and education. The development of these sectors and many more would go a long way in encouraging economic and production activities that will create employment, hence economic development. Foreign investment, while beneficial will only be forthcoming if the economic environment is suitable and if political stability exists. More reliance on domestic savings in future will be needed to curb the increasing stagnation in international capital flows to indebted countries.

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