

Domestic Debt and the Growth of Nigerian Economy

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ABSTRACT
The study investigates the relationship between domestic debt and economic growth in Nigeria. The Ordinary Least Squares Method (OLS), Error Correction and parsimonious models are used to analyze quarterly data between 1994 and 2008. Our result shows that the domestic debt holding of government is far above a healthy threshold of 35 percent of bank deposit as the average over the period of study is 114.98 percent of bank deposit presenting evidence of crowding out of private investments. The study of course affirms that the level of debt has negative effect on economic growth. Government should maintain a debt- bank deposit ratio below 35 percent, resort to increase use of tax revenue to finance its projects and divest itself of all projects the private sector can handle while providing enabling environment for private sector investors such as tax holidays, subsidies, guarantees and most importantly improved infrastructure.
Keywords: Budget deficit, debt size, domestic debt, economic growth and investment base

1.1 INTRODUCTION

Domestic debt reduction in Nigeria has taken centre stage for conversing realistic pricing of petroleum products in Nigeria as the domestic debt profile has been rising astronomically and if not controlled could create some unfavorable consequences as crowding out private sector investment, poor GDP growth etc,Okonjo-Iweala,(2011). On the other hand, government has to continue to finance projects to grow the economy and one viable option of doing so is by issuing debt instruments. For example, the 2012 national budget presented to the national assembly contains a deficit of N1.11trillion which has to be financed majorly through domestic debt. As at September 2011, Nigerian domestic debt stood at N5.3 trillion, an equivalent of $34.4 billion while external debt was $5.6 billion bringing the National debt to a total of 40 billion dollar which amounted to 19.6 percent of GDP, Nwankwo(2011) showing that the debt ratio is still below the internationally unacceptable standard of 40 percent of GDP. However, beyond consideration of maximum acceptable debt-GDP ratio of 0.40 a more critical consideration for economic growth is the country's absorptive capacity which might be quite be low a given threshold. Domestic debt is therefore a topic to examine at this point of national development when unemployment is critically high and the global economic crisis is far from being resolved.

Domestic debts are debts instrument issues by the federal government and denominated in local currency. State and local government can also issue debt instrument, but debt instrument currently in issue consists of Nigerian treasury bills, federal government development stocks and treasury bonds. Out of these treasury bills and development stocks are marketable and negotiable, while treasury bonds; ways and means advances are not marketable but held solely by the central bank of Nigeria, Adafu et al (2010). The central bank of Nigeria (CBN) as banker and financial adviser to the federal government is charged with the responsibility for managing the domestic public debt. Alison et al (2003) reveal three principal reasons often advanced for government domestic debt. The first is for budget deficit financing, second, is for implementing monetary policy and the third is to develop instruments so as to deepen the financial market. Whatever the purpose, the government should find a way of managing the domestic debt so that the level of debt is not counter productive. The researcher therefore set out to investigate the structure and effects of rising domestic debt and for this purpose, the paper is divided into five sections. Besides the introductory section, section two, examines the relevant literature exploring the genesis of public debt financing and its management, section three examines the methodology of investigation, section four discusses the research findings and section five raps it up with summary and policy prescriptions.

2.1 LITERATURE REVIEW

The need to finance rising government expenditure has been identified to be responsible for the rapid increase in the stock of Nigeria's domestic debt. A recent study by Abbas and Christensen (2007) analyzing optimal domestic debt level in low-income countries (including 40 sub Saharan African countries) and emerging markets between 1975 and 2004 found out that moderate level of marketable domestic debt as a percentage GDP have significant positive effect on economic growth. The study also provided evidence that debt level exceeding 35 percentages of total bank deposits have negative impact on the economic growth. Christensen (2004) analyses the role of domestic debt market in 27 Sub-Saharan African countries (including Nigeria) based on data spanning the period 1980-2000. The study sought to establish whether domestic borrowing crowded out private sector lending in the period. The study found that domestic debt market in these countries were generally small, highly

short term, and had a narrow investor base. Theoretically, the process of crowding out arises when government borrows heavily from the domestic market, there would be shortages of loan able funds which drives interest rates up leading to the reduction of private borrowing and hence limiting private investment. The proponents of free market argue that government intervention in the economy should be minimal as state activities compete with private sector for scarce funds in the economy thereby driving price up. The end result is crowding out of private investments by public sector projects. Sanusi (1988) was of view that faulty domestic policy which ranges from project finance mismatch, inappropriate monetary policy and fiscal policy are responsible for domestic borrowing problem. Ajayi (1989), traces the origin of Nigeria debt problem to the collapse of the international oil price in 1981 and the persistent suffering of the interactional 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 projects being stalled. He advocates 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 policy and the external factor, which are beyond the control of the economy.

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

2.2 *Performance of Domestic Debt in Nigeria*

Within period under review domestic debt grew astronomically averaging 114.98 percent of bank deposits. In 1994,
debt as percentage of bank deposits was 250 percent and reduced progressively to 74.94 percent in 2005and was as
low as 7.62 percent of bank deposits in 2008. In terms of tenor, the domestic debt was highly short tenured until recently. For instance in 1994, treasury bills accounted for 42 percent of domestic debt, treasury bond accounted for
48 percent, treasury certificate accounted for 9.16 percent and development stock accounted for 8.22 percent of domestic debt and this was the trend until 2007. In 2002, treasury bill accounted for 62.93 percent, treasury bond accounted for 36.93 percent and development stock which is the long term instrument accounted for a mere 0.14 percent of domestic debt. The implication of this is that the debt was used to finance recurrent expenditure which was not growth inducing. But this situation reversed from 2007 as the contribution of treasury bills to domestic debt
fell to 26.50 percent, treasury bond accounted for 18.80 percent and federal government bonds which is the long term instrument accounted for 54.67 percent of the domestic debt.(see Table 1b)

2.3 *Reason for Rising Domestic Debt Profile in Nigeria*

Theoretically, there are three reason often advanced for government domestic debt (Alison et al 2003). The first, is for budget deficit financing, the second is for implementing monetary policy and the third, is to develop the financial sector (supplying tradable financial instrument so as to deepen the financial markets) In Nigeria, several factors have been advanced to explain the changing domestic debt profile between the 1960s and now (see Odozi 1996, Rapu, 2003). The major factor include: high budget deficits, low output growth, large expenditure growth, high inflation rate and narrow revenue base witnessed since the 1980s .The fiscal operation of the federal government resulted in large deficit averaging 1.93 percent of GDP between 1994 and 2008. From an average deficit of 1.56 percent of GDP for the period 1994-1979 , it increased on average to 3.35 percent in 1999-2003 and then reduced to 0.86 percent of GDP in 2004-2008. A very remarkable feature of the government fiscal expansion was the financing of the excess expenditure from domestic debt averaging 114.98 percent of bank deposit between 1994 and 2008.

Cross country relationship between fiscal deficits (as a percentage of GDP) and the size of government debt markets confirm that countries with large fiscal deficits have issued more government securities in domestic markets (Mihaljek et al 2002). Generally declines in government revenue were met by borrowing from the central bank through the instrument of ways and means advances. These advances were never defrayed by the federal government but refinanced by the flotation of new treasury bills and treasury bonds to pay holders of maturing debt instruments thereby contributing to the continued growth of the debt stock,Adofu et al (2010)

2.3.1 Effect of Domestic Debt

1. Large internal domestic debt tends to crowd out private investment: The process of crowding out arises from the fact that once the government borrows heavily from the domestic market, a shortage of loan able fund

arise forcing interest rate up which is the situation, as can be seen from table 1. Between 1994 and 2003, a period of large deficit financing, interest rate was an average of 23.05 percent but between 2004 and 2008, a period of low deficit financing and lower debt ratio, interest on the average reduced to 19.23 percent.

2. High rate of poverty: The welfare implication of domestic debt is the unemployment rate increase due to the closure of industries and decline in government finance on social service, infrastructure service since most part of government revenue are used to service the debt. the resultant effect of all these is the rate of poverty continue to rise in the country, Olukole R.A (1991),. For instance in 1996 a period of high debt ratio, the poverty line was 65.6 percent whereas in 2004, a period of reducing debt ratio, the poverty line reduced to 54.4 percent, though it further increased to 63 percent in 2009(NBOS, 2009)

3. Internal debt may aid government development program if the government sells bonds and development stocks to members of the public to finance its capital expenditure thereby pulling out funds out of personal and corporate income which is effectively utilize in infrastructural projects which by a multiplier effect facilitate generation of a multiple of that income leading to economic growth. It is this situation that commends the switch from overtly preponderance of short term debt instruments in the 1990s to long term debt instruments from 2006.

2.4. Investor Base

An important component of debt management is to stimulate a diverse investor base and develop instruments, trading facilitation and distribution network that best suite the needs of the invertors (IMF, 2001),. In fact, it is crucial to have a diversified investor base in term of time horizon, risk preference and trading motives, especially for fixed income securities (Sidaou 2003). This will help ensure high liquidity and a satisfactory demand.

Table 2b contains summary of holders of government debt instrument between 1994 and 2009. Non-bank holders comprise a wide range of both private and public institutions as well as individual investors, including insurance companies, saving type institution, state and local government etc. Between I994 and 2003,CBN holding of domestic debt averaged 67.92%, while Deposit Bank holding averaged 19.11% and non bank holding averaged 12.03%. This situation changed between 2003 and 2009 as CBN holding plummeted to an average of 18.56% and that of Deposit Money Bank skyrocketed to an average of 52.52% and that of non-bank public holdings of debt instrument averaged 27.45%. The situation where CBN holds more than 50 percent of debt instruments is a reflection of a shallow market with elements of financial repression and therefore a more active participation of the banks and non banks from 2003 is indicative of increase in depth, breath and liberalization which should improve the effectiveness of monetary policy. However, policies should be initiated to make the market more attractive for non bank public as the large pool of fund with the pension mangers could find a safe haven in the domestic debt market.

3.1The Methodology of The Study

The source of data for this study is secondary obtained from the Central Bank of Nigeria statistical bulletins and annual reports, the Debt Management Office [DMO], the National Bureau of Statistics [NBS], and other cognate publications. The main tool of analysis is the Ordinary Least Squares (OLS) using the multiple regression method. The data are 15 years quarterly data covering 1994 – 2008. The objective of the study is to examine the impact of domestic debt on the Nigerian economy and determine the main determinants of domestic debt within the period under review.

The Variables used include the following:

a. Gross Domestic Product
b. Foreign Exchange Rate
c. Credit to private sector
d. Budget deficit
e. Money supply
f. Domestic Debt

3.1.1 ***Model Specification***

$$GDrate = a1 + a2\ Ddebt + a3Pcredit + a4FXrate + a5M_2 + a6Dfcit + U_t. \quad \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where:

Ddebt = Domestic Debt as percentage of GDP

GDrate = GDP growth rate

Pcredit = Private Sector Credit

FXrate = Growth in Foreign Exchange rate

M_2 = M_2 as Percentage of GDP

Dfcit = Fiscal Deficit as percentage of GDP

U_t = Stochastic variable (error term)

A_1 = Intercept
$a_2, a_3, a_4, a_{5,a6}$ = Slope

4.1 Data Analysis and interpretation

Justification of process

The estimation procedure in this study draws on the recent development in co-integration analysis and the error correction model (ECM) that have been used to explore several economic phenomena. Central to this approach is the determination of the time series properties of the variables. At this stage, the idea is basically to ascertain the number of times a particular variable has to be differenced to arrive at stationary, and to determine the order of integration of the series to be used. The purpose is to overcome the problem of spurious estimates often associated with non-stationary macroeconomic time series data and to generate a possible feedback effect as well as valuable long-run relationship between the regressand and explanatory variables simultaneously (Engel and Granger, 1987; Henry, 1986). Beyond the advantage of eliminating the problem of spurious estimates, co-integration and error correction methodology also adds richness, flexibility and versatility to econometric estimation by integrating short run dynamics with long run equilibrium. Hence, accurate predictions can be confidently made on the relationship between the affect economic variables. The approach can also show the variables that are important in determining short run variation in the models. The theoretical foundation for this procedure is well highlighted in many articles (For example, Samon, 1982; Nickel, 1985; Domowitz and Elbadawi, 1987). Apart from underestimation of economic activities, data inconsistencies are rampant in Nigeria. Data on the same variable from varying sources tend to give different information. Furthermore, there are time lags in reporting or compilation of certain information, making it difficult to update data. As a result, it has become necessary to rely on estimation and provisional data. Again quantitative results were obtained simply by applying a set of restricted methodology to the available data in Nigeria. It is, however, doubtful whether such an exercise provides a better basis for judgment on the impact of Nigeria domestic debt and Nigerian economy than would a more qualitative discussion of the subject.

Unit Root Testing for Domestic Debt and the Nigeria Economy

Table 6: Unit root test at Levels

Variable,	Lag length	ADF test Statistic	ADF critical Value	Level of Significance	Order of Integration
(GDRATE, 1))	1	-3.51997	-2.91173	5%	I(0)
(DDEBT, 1))	1	-3.40539	-2.91173	5%	I(0)
(PCREDIT, 1))	1	-0.28235	-2.91173	5%	I(0)
(FXRATE, 1))	1	0.298469	-2.91552	5%	I(0)
(M_2, 1))	1	-0.92112	-2.91173	5%	I(0)
(DFCIT,1))	1	2.66274	-2.91173	5%	I(0)

The result of the unit root test in table 6 reveals that two of the variables, economic growth rate (GDRATE) and domestic debt (DDEBT) were stationary at levels while the rest were not. We therefore accept the unit root null hypothesis indicating the presence of a unit root at levels and then proceed to employ first differentiation approach to establish the order of integration of the variables using the Augmented Dickey Fuller tests unit root test as presented in the table below:

Table7: Unit root test at first differencing

Variable,	Lag length	ADF test Statistic	ADF critical Value	Level of Significance	Order of Integration
(GDRATE, 1))	1	-7.61712	-2.91263	5%	I(1)
(DDEBT, 1))	1	-7.696795	-2.91263	5%	I(1)
(PCREDIT, 1))	1	-7.61819	-2.91263	5%	I(1)
(FXRATE, 1))	1	-7.37938	-2.91656	5%	I(1)
(M_2, 1))	1	-7.50648	-2.91263	5%	I(1)
(DFCIT,1))	1	-7.525503	-2.91263	5%	I(1)

All the variables were differenced once to arrive at a stationary level as shown in table7. This implies the rejection of the unit root null hypothesis of a unit root. We then concluded that the variables of the model are integrated to order one. The Engle and Granger two step procedure argues that although the individual series may not be integrated of the same order but a linear combination of the series will produce a co integrated series. Hence we proceed to estimate the number of the co-integrated equations using Johansson and Julius (1992) procedure involving eigenvalue and trace test. This provides evidence for the long run stability of the system and further validates its efficiency for prediction, forecast and policy recommendations. The result of the co-integration test is presented in the table below:

Table 8:The Co integration Analysis

Trend assumption: Linear deterministic trend
Series: GDRATE DDEBT PCREDIT FXRATE M2 DFCIT
Lags interval (in first differences): 1 to 1

Unrestricted Co integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.319250	70.84026	95.75366	0.6942
At most 1	0.287835	50.07402	69.81889	0.6345
At most 2	0.263657	31.74393	47.85613	0.6262
At most 3	0.162931	15.21675	29.79707	0.7659
At most 4	0.080400	5.612892	15.49471	0.7407
At most 5	0.019925	1.086809	3.841466	0.2972

Trace test indicates no co integration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The co-integration result for the effect of domestic debt on the Nigerian economy is summarized in the table 8. The empirical investigation of the result reveals a five co-integrating equations in the system and variable of concerned depicts a common trend characteristics. Hence there is a long-run stability relation between domestic debt and the Nigerian economy. Consequently we went further to conduct an ordinary least square estimation to determine the extent of the relationship between domestic debt and the economy.

Analysis of the Regression Result II
Regression Result on Domestic Debt and Nigeria economy

The equation of the model specification is presented as follows:
GDRATE = 6.472-1.88 DDEBT + 0.186PCREDIT +0.123FXRATE -0.609M_2-5.619DFCIT
T-value (1.799) (-1.968) (0.939) (6.640) (-0.242) (-5.566)
P-value {0.078} {0.055} {0.352} {0.000} {0.810} {0.078}

R^2 = 0.694; Adj.R^2 =0.663 F-Statistics = 22.686 DW =0.549 F. Prob. = 0.000

Where;

GDRATE is Gross Domestic Product Growth Rate

DDEBT represents Domestic Debt as percentage of GDP

PCREDIT is Private Sector Credit to the Economy as percentage of GDP

FXRATE is the growth in foreign exchange rate

DFCIT represents Fiscal Deficit as a percentage of GDP.

Note: the values in brackets represent the T-values while the values in parenthesis represent the P-values.
The explanatory power of the entire model is estimated at over 69 percent changes in the economic growth sequel to variations in the exogenous variables included in the model. The adjusted R-squared result indicates over 66 percent changes showing that the R-squared result did not merely result from the inclusion of exogenous variables in the model. The statistical significance of the model is satisfactory and can be used for further prediction and forecasting. Also the Durbin Watson Statistics implies the existence of positive auto correlations of the variables in model.
Analysis of the above empirical model indicates linear relation consisting of both positive and negative relationship between economic growth and its exogenous variables. In general domestic debt, money supply and government fiscal deficit indicated a negative relationship with the Nigerian economy while private sector credit and foreign exchange indicated a positive relationship. Although domestic debt, foreign exchange and fiscal deficit were statistical significant, private sector credit and money supply were statistically insignificant. Specifically from the study, a percentage growth in domestic debt lowers growth of Nigerian economy by over 1.8 percent is statistically significant. Economically, debt and debt serving constitutes leakage to the proper functioning an economy and also constitute a barrier to growth when allowed to exist in an economy. Private sector credit to the economy promotes growth but was not significant at 5 percent significant level. Hence, the need for more credit to be accessed through the private sector if significant impact on economic growth is to be achieved through the private sector channels. In this study, we discover that foreign exchange rate significantly favors the Nigerian economy. A percentage growth in foreign exchange rate improves and facilitates growth by 0.12 percentage growth. It is also in conformity with a priori expectations. Here the evidence for money supply depicts that money supply does not show support for growth and development. This could be explained by excess money supply resulting to unproductive deployment of funds in unprofitable projects. The fiscal deficit operation by the government significantly retards growth of the economy and should be handled with utmost precision by the monetary authorities if at all it will be employed as a fiscal measure.
Next we proceed to the error correction model. First we introduce the over parameterized model including all the lag to lag length 3 to re-estimate the model as shown in table 9 below:

Table 9: Over Parameterized Error Correction Model for GDP growth and Domestic Debt in Nigeria

Dependent Variable: D(GDRATE,1)
Method: Least Squares
Date: 01/03/12 Time: 15:31
Sample (adjusted): 1997Q4 2008Q4
Included observations: 45 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DDEBT,1,10)	-1.365428	1.319365	-1.034913	0.3073
D(PCREDIT,1,10)	1.378835	0.865048	1.593940	0.1192
D(FXRATE,1,10)	0.002450	0.018363	0.133433	0.8946
D(M2,1,10)	-1.747434	0.826990	-2.113004	0.0412
D(DFCIT,1,10)	-5.350294	1.205182	-4.439409	0.0001
ECM(-1)	-0.416409	0.127765	-3.259184	0.0024
C	0.160173	0.322789	0.496216	0.6226

R-squared	0.592994	Mean dependent var	0.095333
Adjusted R-squared	0.528730	S.D. dependent var	3.085893
S.E. of regression	2.118438	Akaike info criterion	4.481270
Sum squared resid	170.5357	Schwarz criterion	4.762306
Log likelihood	-93.82858	F-statistic	9.227458
Durbin-Watson stat	2.336691	Prob(F-statistic)	0.000003

The equations in table 9 represents the over parameterized model for domestic debt and economic growth in

Nigeria. The explanatory power of the model shows that over 59 percent of the total changes in economic growth rate are explained by the included exogenous variables. The adjusted R-square result explains over 52 systemic changes in the model. The Durbin Watson Statistics indicates insignificant autocorrelation in the model represented above. Apart from private sector credit (PCREDIT) and foreign exchange other variables indicates a negative relationship with growth rate. A further investigation of the over parameterized model at lag 10 shows that only money supply and deficit financing have a significant negative effect on growth rate. The result of the error correction term implies a significant mechanism of adjusting the system back on in equilibrium part at an adjustment of speed of 41.6 percent within on quarterly bases in periods of disequilibrium. Thus can be seen as a moderate speed of adjustment and from which we proceeded for the parsimonious model estimation. This is shown in table 10, below:

Table 10
Parsimonious model for GDP growth and Debt Management in Nigeria

Dependent Variable: D(GDRATE,1)
Method: Least Squares
Date: 01/03/12 Time: 15:07
Sample (adjusted): 1996Q4 2008Q4
Included observations: 49 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(DDEBT,1,10)	-1.844531	0.792404	-2.327766	0.0246
D(M2,1,10)	-0.602461	0.363565	-1.657093	0.1046
D(DFCIT,1,10)	-5.694477	1.034184	-5.506251	0.0000
ECM(-1)	-0.414220	0.124182	-3.335594	0.0017
C	0.113993	0.310711	0.366879	0.7155

R-squared	0.539117	Mean dependent var	0.028639
Adjusted R-squared	0.497218	S.D. dependent var	2.985039
S.E. of regression	2.116605	Akaike info criterion	4.433955
Sum squared resid	197.1208	Schwarz criterion	4.626998
Log likelihood	-103.6319	F-statistic	12.86721
Durbin-Watson stat	2.249007	Prob(F-statistic)	0.000001

In the parsimonious model (see table 10) we arrived at a better result by method of elimination of less contributory variable specification. In the final stage the explanatory increases to over 53 percent while the adjusted R-square recoded an explanatory power of over 49 percent owing to the stylized fact that the system penalizes the R-square for every additional variable entered in the model. The parsimonious model also depicts evidence of no autocorrelation of the variables considering the Durbin Watson (i.e. 2.2). All the variables entered exhibits significant negative effect on economic growth except for money supply which does not show a significant effect on growth. Finally the speed of adjustment of the system from long-run to short run changes was significantly measured at over 41 percent. This result suggests the system's ability to return back to its equilibrium state in periods of shocks and disequilibrium and also suggest the possibility of convergence between domestic debt and economic growth at a relatively moderate speed.

Table 11
Analysis of the Regression Result III
Regression Result on Determinants of Domestic Debt in Nigeria

The following equations empirically present the result of the relationship between domestic debt and the Nigerian economy.

Determinants of Domestic Debt in Nigeria Economy

DDEBT = 3.164-0.038GDRATE-0.186PCREDIT +0.017FXRATE +0.196M_2-0.897DFCIT
T-value (11.212) (-1.968) (-2.109) (6.693) (2.155) (-6.802)
P-value {0.000} {0.055} {0.039} {0.000} {0.036} {0.000}

$R^2 = 0.808$; Adj.R^2 =0.788 F-Statistics = 42.00 DW =0.44 F. Prob. = 0.000

Where;

DDEBT represents Domestic Debt as percentage of GDP

GDRATE is Gross Domestic Growth Rate

PCREDIT is Private Sector Credit to the Economy as percentage of GDP

FXRATE is the growth in foreign exchange rate

DFCIT represents Fiscal Deficit as a percentage of GDP.

Note; the t-values are presented in brackets while the P-values are in parenthesis.

Determinant of domestic debt in Nigeria

The result from table 11 investigates the determinants of domestic in Nigeria. The analysis of the result shows that the domestic debt determinants accounted for over 80 percent changes in domestic debt as result of the variations in the determinant factors. The R-squared result of over 78 percent variation in domestic debt contributed by changes in the determinant variables also confirms the R-squared result. The F-statistic (42) confirms the statistical significance of the model and further signifies that the model is statistically different from zero and thus will be useful for economic analysis and decision making as also reveal by the F. probability result. The empirical evidence arising from the Durbin Watson statistics indicates evidence of positive autocorrelation of the variables that constitutes the model specification. The study further reveals that all the variables used except economic growth, were significant determinants of domestic debt in Nigeria. The analysis of economic growth rate and domestic debt at 5 percent level of significance reveals that economic growth does not significantly support domestic debt and thus establishes a negation relation with domestic debt. This also indicates that economic growth reduces domestic debt in the economy. As could be seen from the analysis a one percentage growth rate of the economy reduces domestic debt by 0.38 percent and therefore conforms to a priori expectations. Private credit has an inverse relationship with domestic debt. This result of the empirical analysis shows that increase private sector credit decreases domestic debt incurred by the government. Increase in private sector credit helps in mobilization of funds for investment and also facilitates the creation goods and services rather than merely depending on government monetary and fiscal policies to stimulate economic activities. This reduces the chances of running into debt by private, corporate and government investors. Private sector credit is not only statistically significant as a determinant of domestic debt but also is applicable to the a priori expectation. A percentage increase in private sector credit has a decreasing impact of over 0.18 percent on domestic debt. A further investigation on foreign exchange reveals that a 1 percent increase in exchange rate would significantly increase domestic debt by a corresponding rate of 17 percent all things being equal. This implies that the cost of unit of import would be higher forcing government borrow more to import the same item. Foreign exchange rate determinant is therefore statistically significant and in line with economic theories. Broad money supply exhibits a positive relationship with domestic debt and although statistically significant does not conform to a priori expectation. Money supply when endogenously determined is supposed to create more goods and services to the economy and through its multiplier and accelerator principles increase productivity and reduction in debt burden. Instead increase in money supply is found to increase domestic debt by approximately 0.2 percent. This is not far fetched as can be ascertain to be majorly caused by exogenously determined factors of money supply outside the control of the monetary authorities. The predominance of these factors including illegal economic activities that takes place under ground induces inflationary pressures and devaluation on the naira currency. This hinders proper economic growth and henceforth encourages borrowing for investment projects most times.

Finally, fiscal deficit significantly reduce domestic debt as we can deduce from the study. An increase of one percentage in government fiscal deficit reduces domestic debt by 0.89 percent. The government fiscal deficit in this study is statistically significant and goes contrary to theory buy may be explained by government resort to inflationary financing, drawing on foreign reserve, borrowing abroad or by the fact that period of study coincides with when Nigeria received debt relieve from the Paris club.

5.1 Conclusion

This study examines the domestic debt of the Nigerian economy, its structure, impact and its main determinants and observe that the domestic debt has grown astronomically from N407 billion in 1994 to N3228 billion in 2009 and the main instruments of the domestic debt are the treasury bills and bonds and federal government bonds and stocks. The states and local governments are not yet important prayers in the domestic debt market. The debt instrument issued are highly short term in nature as treasury bills and bond controlled over 70 percent of the issues until 2005 when the issue of long term bond became significant. The investor base of the Nigerian debt market is well diversified as both banks and non bank public are active in the market especially from 2002 but the domestic debt holding of government is far above a healthy threshold of 35 percent of bank deposit as the average over the period of study is 114.98 percent of bank deposit and there is evidence of crowding out of private investments. The study of course affirms that level of debt has negative effect on economic growth which is in line with the finding of Abbas and Christensen (2007). On the determinants of the size of Nigerian domestic debt, it is observed that low rate of economic growth, foreign exchange rate, inadequate credit to private sector and unstable monetary policy environment influenced the size of domestic debt within the period of study.

5.2 *Policy Recommendation*

The major policy recommendation are as follows

- Government should maintain a debt bank deposit ratio below 35 percent and resort to increase use of tax revenue to finance its projects as it is our believe that tax revenue is far from the optimum.
- Government should divest itself of all projects which the private sector can handle including refining crude oil (petroleum product) and transportation but should provide enabling environment for private sector investors such as tax holidays, subsidies, guarantees and most importantly improved infrastructure
- Government should maintain a proper balance between short term and long term debt instruments in such a way that long term instruments dominate the debt market. Even if the ratio of the long term debt is a multiple of deposit, the economy can still accommodate it so long as the proceed is channeled towards improving Nigerian investment climate.

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Appendix

Table 1b.

Year	Debt as% of DMB deposits	TB as % of debt	TB as % of debt	CBN holding as % of debt	lending rate
1994	250.2	41.94	48.08	75.68	21
1995	242.73	57.96	36.44	86.72	20.79
1996	138.25	42.77	56.52	74.48	20.86
1997	168.07	72.65	26.78	80.38	23.32
1998	160.55	67.5	32.03	81.11	21.34
1999	152.71	45.52	54.18	64.22	27.19
2000	120.81	51.83	47.94	55.02	21.55
2001	107.37	57.48	42.34	70.79	21.34
2002	100.77	62.93	36.93	44.58	30.19
2003	98.91	62.05	32.34	46.16	22.88
2004	82.48	63.61	31.01	29.45	20.82
2005	74.94	56.02	27.48	26.76	19.49
2006	13.94	39.64	23.59	19.14	18.7
2007	5.35	26.5	18.8	13.53	18.35
2008	7.62	20.34	17.34	12.47	18.79
2009		24.71	12.15	10.01	

Calculated by researcher from CBN and DMO annual publications

Table 2b

INVESTORS BASE OF GOVERNMENT DOMESTIC DEBT OUTSTANDING

YEAR	CBN	CB	MB	Sinking Fund	Non Bank Public	TOTAL
1994	308440.8	38901.1	8371		51869.8	407582.7
1995	414285.9	20539.8	1755.8		41152.4	477733.9
1996	312804.3	47243.3	8821.9		51106.1	419975.6
1997	403301.5	39402.2	5697.9		53349.5	501751.1
1998	454901.5	48795.3	8879.7		48244.7	560830.2
1999	510468.7	186142.7	12723.3		85471.9	794806.6
2000	494258.8	275773.6	12439.3		115782.3	898253.9
2001	719944.3	199261.5	0		97768.2	1016974
2002	519770.8	469229.5	0		186000.4	116600.7
2003	613817.5	471766.9	0		244108.6	1329692.7
2004	403500.0	669100.0	0		297800.0	1370300.0
2005	408400.0	726200.0	0		391300.0	1525900.0
2006	335500.0	882900.0	0		534900.0	1753300.0
2007	293600.0	1410000.0	0		466000.0	2169600.0
2008	289370.0	1482160.0	0		548780.0	2320300.0
2009	323200.0	1274600.0	0	284700	1345600.0	3228000.0

Source: Various editions of CBN Annual Reports and DMO Annnual Reports