Domestic Debt And Private Investment In Nigeria

Authors

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ABSTRACT

This study sets out to investigate and elaborate the empirical issues pertaining to the structure and composition of domestic debt and its impact on private investment in Nigeria. The study employed multiple regression models using secondary data from 1970 to 2012. The study found that domestic debt has inverse significant impact on domestic private investment in Nigeria. Results also show that domestic debt has inverse significant impact on foreign private investment in Nigeria with exchange rate and debt servicing having positive effect on foreign private investment in Nigeria. The study concludes that domestic debt if unchecked crowds-out private investment in Nigeria.

Keywords: Debt composition, debt structure, domestic debt, private investment,

INTRODUCTION

It is generally expected that developing countries facing a scarcity of capital, will acquire domestic debt to supplement domestic saving [1]. [2] posits that the rate at which developing countries borrow, that is, the “sustainable” level of domestic borrowings depend on the links among foreign and domestic saving and investment. [2] Suggest that the main lesson of the standard “growth with debt” literature is that a country should borrow home and abroad as long as the capital thus acquired produces a rate of return that is higher than the cost of the domestic and foreign borrowings. In that event, the borrowing country is expected to increase capacity and expand output with the aid of domestic debt.

In Nigeria, treasury certificates, which were first issued in 1968, constituted one of the largest securities between 1983 and 1988. It even surpassed treasury bills issued to further deepen the domestic money market by increasing short – term investment options available. In 1989, the monetary authorities initiated the
action bid system for flotation of treasury bonds as another instrument in the portfolio of domestic debt. The objective was to minimize the service obligation on domestic debt arising from the liberalization policies thus in 1989, N20 million worth of treasury bills representing 58.6% of treasury bills outstanding were converted to treasury bond. A treasury certificate was therefore abolished in 1996, [3].

In Nigeria, since the early 1960s, the ratio of domestic debt to Gross Domestic Product (GDP) increased to 6.1%. A decade later by 1974 this ratio went up slightly to 6.9% of GDP. But by 1984, the domestic debt to GDP ratio was over 40%. Although it declined slightly in the 1990s, it has since 2000 moved upward, [4]. The study further opined that, Nigeria has not been alone in experiencing escalating levels of government domestic indebtedness, but in comparison to other countries in sub-Saharan Africa, Nigeria’s domestic debt to GDP ratio is clearly on the high side.

One can analyze the evolution of the domestic debt from its size/structure or by considering its different components. The stock of government debt is measured relative to national output. This is shown by the size of the domestic debt structure both in nominal terms as a percentage of total debt. Domestic debt structure has grown tremendously from N0.23 billion at inception (1960) and it stood at N1.86 billion as at 1980. It was in 1986, at the inception of the Structural Adjustment Programme (SAP) that the level of external debt for the first time becomes larger than the level of domestic debt. Ever since then, the stock of external debt has consistently been larger than domestic debt [5].

The stock of federal government domestic debt as at December 2010 was N4,551.8 billion, representing an increase of 41 percent over the level in 2009. The development reflected the substantial borrowing through the issuance of federal government of Nigeria (FGN) bonds and treasury bills. The banking system remained the dominant holder of the outstanding debt instruments with, 67.9 percent, and the non-bank public accounted for the balance of 32.1 percent. Disaggregation of the banking system’s holdings indicated that N2,605 billion or 84.2 percent, was held by the deposit money banks and discount houses, and N487.5 billion, or 15.8 percent by the CBN and the sinking fund. Analysis of the maturity structure of the domestic debt showed that instruments of two years and below accounted for N2,850.7 billion or 62.6 percent, followed by instruments of two to five years at N501.7 billion, or 11 percent; those with tenors of between five and ten years totaled N481.1 billion or 10.6 percent, and tenors of over ten years at N718.3 billion, or 15.8 percent [6].

In the last few years (since, 2007) there had been alarming signals on the rising level of Nigerian domestic debt, which in the absence of appropriate measures might result to a looming catastrophe. However, the Nigeria economy today has unprecedented debt crises. The magnitude of the debt and its associated adverse effect on private investment has become concern to the government. The issue of debt burden in Nigeria cannot be overemphasized. Despite the government continuous effort on managing accumulated debt, by
embarking on several measures such as debt rescheduling, debt conversion, debt equity, debt forgiveness or cancellation, etc there exist yet a couple of unanswered questions that should be resolved, [7].

There is therefore the need to examine the effect of domestic debt on private investment in Nigeria to enhance proper policy recommendation to the government. Against this background, this study is poised to answer the following research questions: What is the impact of domestic debt on domestic private investment in Nigeria? What is the impact of domestic debt on foreign private investment in Nigeria?

The broad objective of the study is to investigate the structure and composition of domestic debt and the impact on private investment in Nigeria. However, the specific objectives are: (1) to establish the impact of domestic debt on domestic private investment in Nigeria. (2) to investigate the impact of domestic debt on foreign private investment in Nigeria.

REVIEW OF RELEVANT LITERATURE

[8] Argued that 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. [5] Proclaimed that the external debt situation for number of low income countries, mostly in Africa has become extremely different. For these countries, even full 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 investment levels within a reasonable period of time and without additional external support.

[9] found that high level of accumulated debt in developing countries negatively impact on their investment capacities and growth performance. The study also found that debt over-hang affects economic reforms and stable monetary policies, export promotion and a reduction in certain trade barrier that would make the economy more market friendly.

Cross-country regression analysis by [10] on the impact of aid and external debt on domestic investment, the regression results were suggestive of a series of interesting relationships. This then is to say that there is quite strong evidence of positive impact of aid both on the growth rate in GDP per capital and the investment rate. [11] in their paper assessed the non-linear impact of debt accumulation on investment growth using a panel data of ninety three (93) countries over 1969-98 employing econometric methodologies. Their findings suggested the average impact of debt becomes negative at about 160-170 percent of investment or 35-40 percent of gross domestic product (GDP).

[12] Examined deficit financing and its implication on private sector investment in Nigeria and findings revealed a negative relationship between deficit financing and investment, that is, deficit financing in Nigeria crowds out private investment. Most Nigerian studies focused on the relationship between debt and
economic growth using cointegration analysis, for instance, [13], [14]; [4]; [15] and [16]. Results show that
domestic debt has affected the growth of the Nigerian economy negatively. Very few studies focused on the
relationship between debt and investment growth, [17];[18]; [19] and [20]. However, results show that
exclusive stock of debt retards investment growth and hamper the socio–economic development of sub-
Saharan African countries.
However, none of the Nigerian studies reviewed has investigated beyond 2008 to determine the effect of
domestic debt on private investment in Nigeria. Also no single study showed the separate effects that
domestic debt has on domestic private investment and foreign private investment. These are very serious
loopholes in domestic debt and investment literature. This study therefore filled these gaps in literature by
covering from 1970 to 2012.

**METHODOLOGY AND DATA**
The general nature of the model of this study would be derived within the context of the theoretical link
between domestic debt and private investment noted in literature. The study formulates a multiple regression
model to assess the effect of domestic debt on private investment. However, based on the objectives of this
study, it shall drop government expenditure and budget deficit and introduce exchange rate, inflation rate,
debt servicing, national savings and real gross domestic product variables. Since private investment
comprises domestic private investment and foreign private investment the model of this study would reflect
same. The model used in this study followed the work of [12].

**Definition of Variables**
DPI = Domestic Private Investment,
INF = Inflation Rate,
FPI = Foreign Private Investment,
DSC = Debt Servicing
EXD = External Debt
DOD = Domestic Debt
EXR = Nominal Exchange Rate
INT = Interest Rate
RGDP = Real Gross Domestic Product
NSV = National Savings

Model 1 expresses domestic private investment as a function of domestic debt, external debt, exchange rate,
interest rate, inflation rate and national savings to capture objective 1.
The functional form of the model is specified as:

\[
\text{DPI} = F(\text{DOD}, \text{EXD}, \text{EXR}, \text{INT}, \text{INF}, \text{NSV}) 
\]
Model 1 is specified econometrically as:

\[ DPI_t = \beta_0 + \beta_1 DOD_t + \beta_2 EXD_t + \beta_3 EXR_t + \beta_4 INT_t + \beta_5 INF_t + \beta_6 NSV_t + \mu_{1t} \]  

(2)

where, EXD and NSV are control variables for model 1.

Model 2 expresses foreign private investment as a function of external debt, domestic debt, exchange rate, interest rate, debt servicing and real gross domestic product to capture objective 2.

The functional form of the model is specified as:

\[ FPI = F(EXD, DOD, EXR, DSC, INT, RGDP) \]  

(3)

The model is specified econometrically as:

\[ FPI_t = \psi_0 + \psi_1 EXD_t + \psi_2 DOD_t + \psi_3 EXR_t + \psi_4 DSC_t + \psi_5 INT_t + \psi_6 RGDP_t + \epsilon_{1t} \]  

(4)

where DOD, DSC and RGDP are control variables for model 2.

The assumption in the equations above is that all the variables exhibit a mean reversing property of stationarity. If the variables are not stationary at level, they shall be differenced by employing Augmented Dickey-Fuller (ADF) test to ensure that the variables attain stationarity. The study shall therefore estimate the following equation:

\[ \Delta Y_t = (Y_t - Y_{t-1}) = \mu_t \]  

(5)

where \( Y \) is a vector of all the variables and \( \mu_t \) is a white noise error term. Against this backdrop, models 1 and 2 are restated as follows:

MODEL 1

\[ \Delta DPI_t = \beta_0 + \beta_1 \Delta DOD_t + \beta_2 \Delta EXD_t + \beta_3 \Delta EXR_t + \beta_4 \Delta INT_t + \beta_5 \Delta INF_t + \beta_6 \Delta NSV_t + \mu_{2t} \]  

(6)

MODEL 2

\[ \Delta FPI_t = \psi_0 + \psi_1 \Delta EXD_t + \psi_2 \Delta DOD_t + \psi_3 \Delta EXR_t + \psi_4 \Delta DSC_t + \psi_5 \Delta INT_t + \psi_6 \Delta RGDP_t + \epsilon_{2t} \]  

(7)

PRESENTATION OF RESULT AND DISCUSSION

The results of the ordinary least squares regression are presented below.

Table 4.1 Impact of domestic debt on domestic private investment in Nigeria

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>11.42483</td>
<td>0.860880</td>
<td>13.27111</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(D(DOD))</td>
<td>-0.734074</td>
<td>0.313746</td>
<td>-2.339706</td>
<td>0.0267</td>
</tr>
<tr>
<td>LOG(D(EXD))</td>
<td>-0.167385</td>
<td>0.077873</td>
<td>-2.149455</td>
<td>0.0404</td>
</tr>
<tr>
<td>LOG(D(EXR))</td>
<td>-0.006377</td>
<td>0.004344</td>
<td>-1.468245</td>
<td>0.1532</td>
</tr>
<tr>
<td>LOG(D(INT))</td>
<td>-0.002335</td>
<td>0.032216</td>
<td>-0.072489</td>
<td>0.9427</td>
</tr>
<tr>
<td>LOG(D(INF))</td>
<td>-0.004780</td>
<td>0.007333</td>
<td>-0.651788</td>
<td>0.5199</td>
</tr>
<tr>
<td>LOG(D(NSV))</td>
<td>0.897955</td>
<td>0.292553</td>
<td>3.069380</td>
<td>0.0047</td>
</tr>
</tbody>
</table>
Results show that domestic debt and external debt have inverse significant relationship/effect on domestic private investment by about 73% and 17% respectively. This outcome is not surprising because private investors would face credit crunch with an increasing domestic debt. This is in tandem with the result found by [11], for south of Saharan African countries but contrasts the finding of [3]. But national saving has positive significant effect on domestic private investment to the tune of about 90% (see, [19]) for Sub-Saharan African countries. while exchange rate, interest rate and inflation rate have negative insignificant effect on domestic private investment in Nigeria.

**Table 4.2 Impact of domestic debt on foreign private investment**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>49045.00</td>
<td>185069.2</td>
<td>0.265009</td>
<td>0.7926</td>
</tr>
<tr>
<td>LOG(D(EXD))</td>
<td>-1.325379</td>
<td>0.169584</td>
<td>-7.815473</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(D(DOD))</td>
<td>-0.629618</td>
<td>0.213773</td>
<td>-2.945265</td>
<td>0.0057</td>
</tr>
<tr>
<td>LOG(D(EXR))</td>
<td>50617.74</td>
<td>6773.872</td>
<td>7.472496</td>
<td>0.0000</td>
</tr>
<tr>
<td>LOG(D(DSC))</td>
<td>3.618360</td>
<td>1.600976</td>
<td>2.260096</td>
<td>0.0301</td>
</tr>
<tr>
<td>LOG(D(NT))</td>
<td>-37514.28</td>
<td>25500.88</td>
<td>-1.471098</td>
<td>0.1502</td>
</tr>
<tr>
<td>LOG(D(RGDP))</td>
<td>1.847181</td>
<td>1.433122</td>
<td>1.288921</td>
<td>0.2059</td>
</tr>
</tbody>
</table>

Results from table 4.2 show that external debt and domestic debt have significant inverse relationship with foreign private investment to the tune of about 133% and 63% respectively. This result is in line with the findings of [15] for but contrasts the finding of [13]. However, exchange rate and debt servicing have significant positive relationship with foreign private investment but interest rate and real gross domestic product have negative and positive insignificant relationship respectively with foreign private investment in Nigeria.

**POLICY RECOMMENDATIONS**

Based on the findings of this study, the major policy recommendations are as follows:

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 proceeds are channeled toward improving Nigerian investment climate.

Government should maintain a low domestic debt ratio to gross domestic product and resort to increased use of tax revenue to finance its projects. This will boost private investors’ confidence in the economy.

Monetary policy authorities should elect for appropriate debt management policy which will enhance both domestic private investment and foreign private investment in Nigeria. Increased private investment would
help to stabilize exchange rate, interest rate and inflation rate. Also, stability of domestic investment through monetary policy should be embarked upon for the growth of the sector. Monetary policy authorities and other financial regulatory or monitoring institutions should ensure that appropriate policies that will strengthen the efficiency of foreign private investment in Nigeria are being designed, embraced and enforced.

CONCLUSION

This study examines the structure and composition of domestic debt and the impact on private investment in Nigeria. The study observes 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 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 private investment.

REFERENCES


