

Impact of Domestic Debt on the Nigerian Economy

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Abstract

This paper assesses the impact of domestic debt on the Nigerian economy from 2008 to 2020. The study used secondary data which were obtained from Central Bank of Nigeria (CBN) Statistical Bulletin. The data included gross domestic product (GDP) which was proxy for economic growth, with domestic debt instruments, namely, Treasury bills (TBILL) and Government bonds (GOVBOND) as independent (explanatory) variables. Treasury bills form the short-term end of domestic debt, while Government bonds are long-term domestic debt. The study employed a multiple regression model and analyzed with the ordinary least squares technique. Results showed that Treasury bills have not significantly impacted the Nigerian economy, while Government bonds exhibited significant positive impact on the economy meaning that Nigeria has been able to effectively utilize long-term debts rather than shorter term debts. It is suggested that Government should focus more on obtaining and utilizing long-term debts in form of bonds and reduce the use of short-term debt. Government should pay more attention to the efficient deployment and effective utilization of short-term debt obtained in form of Treasury bills when necessary, so that the economy can better benefit from these debts.

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Background to the Study

The importance of finance is based on the premise that no reasonable investment can take place without funds. The slow pace of growth in many developing countries has been attributed to the low level of investment, which in turn has been linked to the absence of available investible funds. To get out of this funding deficit, governments often embark on borrowing to bridge the funding gap and spur economic growth and development. When properly deployed and utilized, government borrowing can enhance economic growth and development, but if not properly utilized, it could restrict economic growth and even become a curse for the economy (Sheikh, Faridi and Tariq (2010).

Government borrowing also referred to as public debt can be domestic or external. Domestic debt arises when government borrows from the residents of a country, while external debt is that which is owed to residents outside the country. Government borrowing is necessitous when the traditional revenue sources such as tax and non-tax are not sufficient to finance government expenditures, and the first option for government usually is to look inwards to its citizens to borrow from.

A number of reasons have been adduced for domestic borrowing. First, government uses domestic debt to finance fiscal or budget deficits. This is expected to accelerate economic growth by enhancing investment. When this happens, the economy is able to grow and proceeds from the investment can be used for the eventual and timely servicing and settlement of debts so incurred. Second, it can be used to implement monetary policy through open market operations. In situations where there is excess liquidity in the economy which could subvert macroeconomic stability, the central bank intervenes by selling government or central bank bills to check inflationary pressures. By so doing, domestic debt acts as an anti-inflationary measure by mobilizing surplus money in peoples' hands. Third, domestic debt can be used to develop and deepen the financial markets, namely the money and capital markets. Short-term, middle-term and long-term financial instruments used for domestic debts are created, issued and traded in the financial markets. Karacadag, Sudararajan and Elliot (2003), stress that the government bond market is the pillar of domestic capital markets because it provides the market-based term-structure of interest rates which is the foundation for the broader domestic bond market. Domestic debt in Nigeria is sourced from the Central Bank of Nigeria (CBN), deposit money banks and the non-banking public via financial instruments such as Treasury bills, Treasury certificates, and Government development stocks, among others. Government usually starts by offering short-term Treasury bills with secure return and thereafter offers longer-dated instruments with different interest rate structures.

Domestic debts can have serious consequences for the economy when not efficiently utilized. In addition, domestic debt servicing absorbs a substantial part of government revenues thereby leaving fewer resources to attend to development projects. This way, internal debt servicing causes more harm for economic growth and development. Furthermore, in underdeveloped financial markets, such as obtains in Nigeria, as

domestic debt increases, the interest cost also rises especially when a large amount of debt is held in short-term instruments (Sheikh et al., 2010).

Available data for domestic debt in Nigeria shows that domestic debt increased from ₦11.19 billion in 1981 to ₦36.79 billion in 1987. In 1995, domestic debt stood at ₦497.72 billion, but increased to ₦6,537.54 billion in 2012. Between 2015 and 2020 it increased from ₦8,837.0 billion to ₦16,023.89 billion (CBN, 2020). A breakdown of the components of domestic debt showed that short-term borrowing in form of Treasury bills increased steadily from ₦471.93 billion in 2008 to ₦3,579.80 billion in 2017 and thereafter decreased to ₦2,651.51 billion in 2019; but rose to ₦2,720.44 billion in 2020. Long-term borrowing in form of Federal Government Bonds, Development Stock, Treasury Bonds, among others increased from ₦1,847.86 billion to ₦12,331 billion in 2020 (CBN, 2020).

From the foregoing statistics, domestic debt has been on the increase and still rising. The growing domestic debt profile has been linked to the need to finance rising government expenditures and accommodating budget deficits. Since the essence of borrowing is to achieve economic growth, it follows that such increases in domestic debt bring in more funds and are expected to stimulate economic activities thus resulting in economic growth and development. A number of studies on the relationship of domestic debt and the economy have come out with varying and conflicting results. Many used aggregate domestic debt variables. The present study uses disaggregated domestic variables in form of short-term and long-term components of domestic debt to assess the impact of domestic on the Nigerian economy. The findings would be used to make recommendations that would aid policy making in Nigeria and contribute to existing literature.

Review of Related Literature

Conceptual Considerations

When government's expenditures exceed their revenues, they usually resort to borrowing. Government's borrowing is called public debt and can come from internal or external sources. Public debt is internal when government borrows from within the country using short-term, medium-term or long-term financial instruments denominated in the local currency and external when it borrows from outside the country and denominated in foreign currency. Okafor and Obasi (2011) defined domestic or internal debt as that debt which is raised by the government from individuals, firms and institutions within the country. According to Anyanwu (2003), domestic debt is the total amount of money owed by the government to the financial institutions, government and other bodies residing in the country. Oshandami (2006), cited in Opara, Nzotta and Kanu, (2021) defined domestic debt as debt instruments issued by the Federal government, and denominated in local currency.

Nwanmuo and Agu (2021), identified the instruments used for domestic borrowing to include Treasury bills, Treasury certificates, Development stocks, Revenue bonds and General obligations bonds. Domestic debt instruments apart from enabling government

obtain funds, also offer investors with an alternative avenue of investment. In this way idle funds in the hands of individuals and non-monetary sector can be channeled to the financial system. In the view of Opara et al. (2021), the paybacks go beyond savings mobilization, to extending the financial markets, broadening of the tax base and improved perceptions of currency and country risk. Akhan (2005), cited in Opara et al. (2021) posited that in the long run, rising domestic financing will help governments build a track record which will enable them to access international markets. This, he explained is because research has revealed that countries that successfully issued sovereign bonds on international markets have also had a long prior experience with issuing domestic government bonds in their home markets.

Empirical Literature

Sheikh et al. (2010), investigated the impact of domestic debt on economic growth in Pakistan for the period 1972 to 2009. Employing the Ordinary Least Squares (OLS) technique, they found that domestic debt stock affects economic growth positively, which is an indication that government had used the resources generated from domestic borrowing to finance those government expenditures which contribute to economic growth. They however observed that a negative relationship exists between domestic debt servicing and economic growth. This, they attributed to the fact that huge burden of non-development expenditures impedes economic growth. They also reported that the negative impact of domestic debt servicing on economic growth is stronger than the positive impact of domestic debt on economic growth in Pakistan. Akram (2011), examined the impact of public debt on the economy of Pakistan over the period 1972 to 2009. He found that domestic debt had a negative and significant relationship with investment, which suggested that domestic debt tended to crowd out private investment. He reported that domestic debt did not have a significant relationship with per capita GDP.

Lashari, Akbar and Khan (2017), investigated the choice between domestic and foreign debt in promoting economic growth in Pakistan. They used data from 1972 to 2010 and employed the Autoregressive Distributed Lag (ARDL) approach. They found that both foreign and domestic debt servicing influenced economic growth negatively. The authors advised that government should not rely on either domestic or foreign debt to fulfill its gaps, but rather advised that policy makers focus on maximum revenue generation through domestic resource utilization and also divert public expenditure from consumption to investment.

In Zimbabwe, Matandare and Tito (2018) examined the relationship between public debt and economic growth. Analysis of data from 1986 to 2016 showed significant positive relationship between domestic debt and economic growth. A number of studies have been carried out in Nigeria. Okwu, Obiwuru, Obiakor and Oluwalaiye (2016) examined the effects of domestic debt on economic growth in Nigeria from 1980 to 2015. Their model had domestic debt stock (DDS) and domestic debt servicing expenditure (DDSE) as independent variables and banks' lending rate (BLR) and government expenditure

(GEXP) as moderating variables. Results revealed that domestic debt had significant positive effect on economic growth, while domestic debt servicing expenditure exerted had negative effect on economic growth. Favour, Idenyi, Oge and Charity (2017) investigated the relationship between public debt and economic growth in Nigeria. Using data from 1990 to 2015 and adopting vector error correction model (VECM), they found that domestic debt had significant negative relationship with economic growth. They also found that domestic debt granger-cause real gross domestic product (RGDP) with causality running from domestic debt to RGDP. Akhanolu, Babajide, Akinjare, Oladeji and Osuma (2018), examined the effect of public debt on economic growth in Nigeria. Analysis of data covering the period from 1982 to 2017 showed that domestic debt exerted a positive impact on economic growth.

Alagba and Eferakeya (2019) investigated the effect of public debt on the economic growth of Nigeria. Employing data from 1981 to 2018, they established that domestic debt had significant positive effect on economic growth. Oluitan (2020), examined the impact of public debt on economic growth in Nigeria over a 56 year-period from 1960 to 2015. Employing an error correction model (ECM), he reported that domestic debt had a positive impact on economic growth, whereas domestic debt service payment had a significant negative impact on the economy. Ajayi and Edewusi (2020), investigated the effect of public debt on economic growth in Nigeria over a period of 37 years (1982 to 2018) using vector error correction model. Findings from the analysis revealed that domestic debt exerted positive short-run and long-run effects on the Nigerian economy.

Opara et al. (2021), examined the effects of domestic public debt on the economic development of Nigeria from 1981 to 2018. They used human development index (HDI) as proxy for economic development. In a second model they employed private sector investor as dependent variable. They employed OLS regression to determine the relationship between Nigeria's domestic public debt and HDI as well as the relationship between domestic public debt and private sector investment. The results showed that federal domestic debt is positively and significantly related to HDI, state government debt is positively and significantly related to economic development and private sector investment. Domestic debt servicing was found to be negatively related to economic development and private sector investment. The authors stressed the need for government to be cautious in her domestic borrowing policy, as debt servicing usually becomes a hindrance to the sustainability of economic gains, not overlooking its tendency of crowding-out private sector investment in the economy.

Nwamuo and Agu (2021), investigated the impact of public debt on the economic growth of Nigeria. The study covered the period from 1981 to 2019. They employed Johansen co-integration test among other tests and found that domestic debt had significant positive impact on economic growth of Nigeria. From the review of the various studies on the relationship between domestic debt and the economy, most reported that domestic debt stock exerted positive effects on the economy, while fewer studies reported negative relationship. Debt servicing was however found to almost always exhibit negative

influence on the economy. This was not altogether surprising as debt servicing payments are not productive, but rather a drain on revenues from productive activities. All the studies reviewed used aggregate variables of domestic debt stock in their models. The present study is designed to disaggregate domestic debt variables into short-term and long-term domestic debts and examine the impact of each of the disaggregated variables on the Nigerian economy.

Methodology

Data

To examine the impact of domestic public debt on the Nigerian economy, secondary data were obtained for period 2008 to 2020. The data were obtained from Central Bank of Nigeria (CBN) Statistical Bulletin. The data included gross domestic product (GDP) which was proxy for economic growth and the debt instruments used by government to obtain domestic public debt, namely, Treasury bills (TBILL) and Government bonds (GOVBOND) which were proxies for short-term and long-term domestic debt. Analysis was carried out using a multiple regression model and ordinary least squares technique.

Model Specification

The model was specified using gross domestic product (GDP) as the dependent variable with Treasury bills (TBILL) and Government bonds (GOVBOND) as independent (explanatory) variables. Treasury bills form the short-term end of domestic debt, while Government bonds are long-term domestic debt. Economic growth is expressed as a function of domestic debt. The general form of the relationship between domestic debt and economic growth is:

$$\text{Economic growth} = F(\text{Domestic debt}) \dots (1)$$

The functional relationship between the dependent and independent variables is expressed as follows:

$$GDP = F(TBILL, GOVBOND) \dots (2)$$

The model is specified as equation 3 as follows.

$$GDP = \beta_0 + \beta_1 TBILL + \beta_2 GOVBOND + \varepsilon_{it} \dots (3)$$

Where:

GDP = Gross domestic product

$TBILL$ = Treasury bills

$GOVBOND$ = Government bonds

ε_{it} = Composite error term

β_0 = Constant term (intercept)

β_1 and β_2 are the coefficients to be estimated.

The model was estimated using the statistical software SPSS 22. The model was used to test the hypotheses at the 5% level of significance.

Hypothesis 1: Treasury bills have no significant impact on the Nigerian economy.

Hypothesis 2: Government bonds have no significant impact on the Nigerian economy.

Results and Discussions

The result from the regression analysis is presented in Appendix and summarized in Table 1.

Table 1: Summary of Regression Result

| | Coefficient | Standard Error | T-Statistic | P-value |
|--------------------|-------------|----------------|-------------|---------|
| TBILL | 3.728 | 2.583 | 1.443 | .180 |
| GOVBOND | 10.068 | .720 | 13.980 | .000** |
| Constant | 20019.339 | 4271.262 | 4.687 | .001 |
| R Squared | .980 | | | |
| Adjusted R Squared | .976 | | | |
| F Statistic | 248.940 | | | .000** |

Dependent Variable: GDP. Note: ** show significance at 5%

Source: SPSS 22 OUTPUT

The F statistic for the model is significant with p-value of 0.000 indicating that the model has “goodness of fit”. The adjusted R^2 is .976, which means that 97.6% variance in the dependent variable can be explained by the independent variables included in the model. In hypothesis 1 at 5% significance level, the coefficient for Treasury bills (TBILL) is positive but insignificant (p-value more than 0.05). Thus, the hypothesis that Treasury bills have no significant impact on the Nigerian economy is not rejected. This means that Treasury bills have not significantly impacted the Nigerian economy.

In the second hypothesis the relationship between Government bonds and gross domestic product (GDP) is positive and significant (p-value less than 0.05). The null hypothesis that Government bonds have no significant impact on the Nigerian economy is rejected. Government bonds have positively and significantly impacted the Nigerian economy. This means that long-term domestic debt impacted the economy positively, whereas short-term domestic debt in the form of Treasury bills did not impact the economy significantly. The reason for this could be that government usually utilize short-term debts for recurrent expenditure which do not add value to the economy, while long-term debt is usually used to finance developmental projects which tend to add more value to the economy. The findings agree with those of Akhanolu et al. (2018), Alagba and Eferakeya (2019) and Ajayi and Edewusi (2020) who reported positive impact of domestic debt on the Nigerian economy. However, these studies were carried out using aggregate domestic debt and did not show the differential effects of short-term from long-term domestic debt which was the highlight of the present study.

Conclusion/Recommendation

The findings of this research work have provided empirical evidence that Treasury bills have not significantly impacted the Nigerian economy, while Government bonds had significant positive impact on the economy. Long-term domestic debt in form of Government bonds impacted the economy positively, whereas short-term domestic debt in the form of Treasury bills did not impact the economy significantly. We can conclude that Nigeria has been able to effectively utilize longer term debts than shorter term debts. It is suggested that Government should focus more on obtaining and utilizing long-term debts in form of bonds and reduce dependence on short-term loans. There is also the need to improve on more efficient deployment and effective utilization of short-term debt obtained in form of Treasury bills so that the economy can benefit from these debts. Thus, resources obtained in form of domestic debt should be directed to sectors where they can be invested and which will stimulate economic activities that will in turn generate revenues that can be used to service and pay back the debt at maturity.

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APPENDIX
Regression Result

Variables Entered/Removed^a

| Model | Variables Entered | Variables Removed | Method |
|-------|-----------------------------|-------------------|--------|
| 1 | GOVBOND, TBILL ^b | . | Enter |

a. Dependent Variable: RGDP

b. All requested variables entered.

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .990 ^a | .980 | .976 | 5694.52472 |

a. Predictors: (Constant), GOVBOND, TBILL

ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|-----------------|----|----------------|---------|-------------------|
| 1 | Regression | 16145034351.055 | 2 | 8072517175.527 | 248.940 | .000 ^b |
| | Residual | 324276117.686 | 10 | 32427611.769 | | |
| | Total | 16469310468.741 | 12 | | | |

a. Dependent Variable: RGDP

b. Predictors: (Constant), GOVBOND, TBILL

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 20019.339 | 4271.264 | | 4.687 | .001 |
| | TBILL | 3.728 | 2.583 | .095 | 1.443 | .180 |
| | GOVBOND | 10.068 | .720 | .918 | 13.980 | .000 |

a. Dependent Variable: RGDP

Source: SPSS 22 OUTPUT