DOMESTIC DEBT EXPOSURE AND POVERTY IN NIGERIA

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ABSTRACT

Domestic debt in Nigeria can have both positive and negative impacts on poverty, depending on how it is managed and used. A key factor is whether debt is used to fund productive investments that create jobs and income opportunities, or it is used to fund unsustainable consumption or debt servicing which can hinder economic development and exacerbate poverty. This study investigated the impact of domestic exposure on poverty rate in Nigeria. Secondary data was employed in this study from 1980 to 2024 which were sourced from the Central Bank of Nigeria Statistical Bulletin (2024). The Vector Error Correction Model (VECM), the Johansen cointegration test as well as the ADF unit root test were used for estimation. All the variables were stationary at first difference I(1). The findings of the study revealed that treasury bills, treasury certificate, government bonds, credit to private sector had positive and significant effects on poverty in Nigeria. It was recommended that the government should channel borrowed funds into productive sectors, increase tax revenue to reduce reliance on borrowing, and ensure debt ratios remain sustainable.

Additionally, stable macroeconomic policies, investment in agriculture and infrastructure, and good governance are crucial for economic growth which can help reduce poverty in Nigeria.

Keywords: *VECM, Domestic debt, Poverty, Treasury bills, government Bonds.*

INTRODUCTION

When government income falls short of its expenses, government borrows to meet up with their statutory obligation. Public debt is therefore a critical instrument for governments to fund public expenditure and thereby accelerate economic growth, particularly when it is difficult to raise taxes. Over the years, this process has left most governments with massive outstanding debts, which sound effects are distressing on the economy because of debt overhang. Reasonable borrowings to finance public spending and infrastructure development are the key to reducing hunger and improving the citizens' living conditions. However, excess borrowing without appropriate planning for investment may lead to a heavy debt burden and interest repayment, which in turn may create several undesirable effects on the economy.

These resultant effects have constituted a serious barrier to achieving zero hunger, and non-improvement of living standard among other issues of deprivation and inequality in Nigeria and the Sustainable Development Goals (SDGs) of 2030.

Nigeria domestic debt profile is currently experiencing an upward trend and such created issues such as debt over-hang, increased debt servicing, exchange rate instability, as well as crowding effect on the private sector investments. Nigeria's current share of domestic debt to total public debt stood at 53.95 per cent in the last quarter of 2024, this shows an infinitesimal decrease to her debt percentage to GDP in the last quarter of 2023 which stood at 61.95 per cent.

As of September 2024, Nigeria debt to GDP ratio stood at 53.8 per cent, the data showed that Nigeria's debt to GDP ratio reached an all-time high of 53.8 per cent and a record low of 9.6 per cent in December 2010. Nigeria has strived to maintain a global benchmark of 60 per cent debt-to- GDP ratio with reports suggesting that Nigeria's debt to GDP-ratio could potentially fall to around 40 per cent due to a planned economic rebasing exercise.

In Nigeria, while the relationship between domestic debt and poverty is complex, studies suggest a long-run relationship where higher debt can lead to a negative impact on poverty reduction, particularly when debt servicing becomes unsustainable Abbas & Christensen, (2010). The effect of public debt on poverty is found to be positive and permanent, becoming more pronounced with time. Some studies suggest that while external debt may have a positive impact on poverty alleviation, domestic debt and debt servicing can have an inverse and significant relationship with poverty reduction.

Conversely, the chunk of Nigeria debt has largely been enabled by states borrowing, as at the first quarter of 2024, Lagos state had the highest domestic debt with N929.41 billion, followed by Delta state N334.90 billion while states like Jigawa and Ondo have the lowest, having N2.07 and N16.40 billion respectively.

In Nigeria, poverty remains a significant challenge, with a large portion of the people living below the poverty line of $2.15 per day, and the situation is exacerbated by factors such increased domestic profile, inflation, economic mismanagement, and insecurity. In 2025, Nigeria is facing a significant challenge with poverty, with projections indicating that rising inflation, interest rates, and weakening Naira could push an additional 13 million people below the national poverty line. This would further increase the number of Nigerians living in poverty, potentially reaching 129 million. The poverty rate rose from 33.2 per cent in 2024. World Bank (2024).

High level of indebtedness or increasing debt liabilities in Nigeria is the common state of affairs in recent times. This is because of the low level of domestic savings, high deficits in the current account, increasing levels of imports, especially capital goods, and commitments to poverty mitigation. The postulation of the neo-classical theory, especially the Harod-Domar growth model is that the reason for borrowing in poor economies, including Nigeria, is the savings-investment gap in that economy. It is important to note that once public borrowing is incurred, servicing of the debt is obligatory. Oyedeji, (2024).

Domestic debt reduces macro-economic risk; the absorption of the domestic financial resources by the government brings some questions like inefficient credit to the private sector and poor financial development. Whatever the purpose, the government should find a way of managing debt so that the level of debt is not counter-productive. Nigerian domestic debt has been on the rise from N1.1 billion in 2001 to N3.2billion in 2009 and N7.1 billion in 2013 (CBN 2013).

Domestic debt had been identified as one of the areas in the macroeconomics literature that can increase the process of development in an economy. Unfortunately in Nigeria domestic debt has taken a key stage in the economy, because of its negative rising profile. According to Iweala (2011), if not controlled could create some unfavorable consequences in the economy, therefore, the Government has to finance projects to grow and one of such options is by using domestic debt instruments. For example, the 2012 national budget presented to the national house of assembly contains a deficit of N1.11 trillion 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 which amounted to 19.6 percent of GDP (Nwankwo, 2011). However, events in the recent past have led to increasing concerns about the possible adverse consequences of the size of internal debt as well as the possible consequential effects of its reduction on private sector investment, the pricing of petroleum products (which is the mainstay of the Nigerian economy), unemployment, corruption, inflation and indeed the living standard of the citizenry; irrespective of its continued use by government to finance projects.

For example, N1.11trillion out of the N4.8 trillion 2012 national budget was financed by domestic debt (Appropriation Act, 2012). The concern is borne out of the experiences of countries like Mexico, Argentina, Portugal, and Greece between 1980s and 2012. The fears range from threats to financial stability to political pressures and the inability of financial institutions to withstand recessions and other types of adversities. Adofu &Abula (2010).

Extant studies such as Abbas & Christensen (2017), Odozi, (2016) among others all came out with varying results. In all the studies reviewed, emphasis was largely restricted to determining the relationship between domestic debt and economic growth. This study tends to differ from other studies by examining the relationship between domestic debt and poverty in Nigeria.

This study was divided into four major segments; the background to the study which includes the problem the study sought to address as well as the objective. The second segment has literature review, including conceptual framework, empirical literature, and theoretical framework. The third segment has to do with the methodology, which includes the results and finally the conclusion and recommendations.

2.0 LITERATURE REVIEW

2.1 Conceptual Framework

Domestic debt could be defined as a debt instrument issued by the federal government and denominated in local currency. In main beliefs, state and local government areas can issue debt instruments, but their capacity to issue such debt instruments must go with the treasury certificates, federal government development stock and treasury bonds. Out of these, treasury bills, treasury certificate and development stocks are merchandisable and traversable while treasury bonds paths and advances are not marketable but held exclusively by the central bank of Nigeria.

Odozi (1996) in his study sees domestic debts as the gross obligation of government property which should include federal, state, and local government transfer obligation to the citizen and corporate firms within the country. Accordingly, the central bank of Nigeria (CBN) as banker and financial counselor of the federal government is charged with the responsibility of handling the domestic public debt. Domestic debt instruments also offer investors with an alternative striking avenue of investment and can therefore help in getting money from the non-monetary sector to the formal financial system (IMF, 2001).

In the long run, rising domestic financing will help governments build a track record to access international markets as research has revealed that countries that have successfully issued sovereign bonds on international markets have characteristically had a long prior experience with issuing domestic government bonds in their domestic markets (Edame & Okoi, 2023).

2.2 **Domestic Debt Instruments**

Treasury Bills: These can be referred to as debt instruments used by the federal government to borrow money for short term of about three months pending the collection of its revenues. Treasury bills were first introduced in United Kingdom during the days of Walter Bagehot (1877), and at that time it was molded as commercial bills. In Nigeria, Treasury bill was introduced on the 19th day of March 1959 based on the strength of the Treasury bill Act of 1959, No. 11. The first public issue of Treasury Bills in Nigeria was made on April 7, 1960. The success realized inspired further issues of this monetary instrument (Anyanfo, 1993). Presently, the allocations of treasury bills are issued by an auction-based system and in multiples of N1000.00 per tender. Ordinarily, contributions are sold through an authorized dealer.

Treasury Certificates: are medium-term government securities which have a maturity of within one to two years. It functions as link between treasury bills (short-term instruments) and long-term government stocks. Treasury certificates were introduced in Nigeria in the year 1968 and are similar to treasury bills in all admirations, except that the tenure is different. Both instruments are qualified for rediscount at the money market. Treasury certificates have played a key role in the growth of the money market in Nigeria. The instrument has also helped government in meeting its financial necessities, especially during the civil war years and the rebuilding period of the 1970's. Additional issues were suspended in 1975 due to excess liquidity in the system caused by the oil boom. The Treasury certificates were again announced in 1976 as a result of pressure on government finances. Treasury Bonds: appeared towards the end of 1989 when the monetary authorities of Nigeria planned to convert N11.35 billion of maturing treasury bills into 5% denominated treasury bonds with maturity profile in excess of ten years. Treasury bonds came not as an outcome of issuance of new instruments but as an essential aspect of internal debt management strategy aimed at distending debt maturity profile. The idea behind 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 processes. The main objective of treasury bonds is to provide a cost effective source of deficit financing for the government and seek to minimize debt service obligations in government debts prompted by the high level of deficit financing by the government (Nzotta, 2004).

Development Stock: is fairly long-term debt instruments sponsored by the CBN on behalf of the federal government. They have stable rates of return and well-defined maturity. In an effort to advance the liquidity and profitability of banks, the central bank classified government development stocks of less than 3 years of maturity as qualified liquid assets for the purpose of calculating the liquidity of banks. This move further widened the scope of activities in the money market (Nzotta, 2004).

FGN Bonds: are debts securities (liabilities) of the federal government of Nigeria issued under the authority of Debt Management Office (DMO) and recorded on the Nigerian Stock Exchange. The FGN has an obligation to

pay the bondholder the principal and agreed interest as at when due. A bond holder has modestly lent to the federal government for a specified period of time. The FGN bond is measured as the safest of all investments in domestic currency securities market reason being that it is backed by the full faith and credit of the federal government. They have no default risk, since it is virtually certain that the interest and principal will be paid as they fall due. The income thus earned will be exempted from the state and local taxes. The minimum subscription of FGN Bond is N10,000.00 + multiples of N1,000.00 afterwards.

Promissory Notes: are documents affirming that a person promises to pay another a specified sum at a specified date. Since it is a traversable instrument, it is analogous to a bill of exchange. the federal government of Nigeria can raise domestic public loans by means of the Government Promissory Notes Act 1960 No. 6.3.4. This is because if the amount borrowed was used optimally, it is anticipated to upturn investment. As long as countries use the borrowed funds for viable investments without suffering from macroeconomic instability, policies that distort economic incentives or sizable hostile shocks, growth should increase and allow for timely debt repayment. On the other hand, the indirect influence of debts is its effect on investment. The transmission mechanism through which debts affect growth is its decline in the resources available for investment by debt servicing. Also, public debt can act as an implicit tax on the resources produced by a country and create a burden on future generations which come in the form of abridged flow of proceeds from a lower stock of private capital. Consecutively, this may lead to an increase in long-term interest rates, a crowding out of private investments essential for productive growth, and a fall in capital accumulation.

2.3.2 **THEORETICAL FRAMEWORK**

Keynesian Theories of Debt

According to Keynesian theory of public debt (1936), the idea was to use fiscal policy to maintain a high level of public or semi-public investments. Investment should encourage consumption by raising the overall level of output, and thus, raising income. The more consumption there was, the higher the national income, and therefore the greater the savings of society could be used to finance investment. A permanently high level of publicly directed investment would offset fluctuations in private investment and contribute to the economy remaining in a ‘quasi boom’.

Keynes expected the government to take on a greater role in investment as the need became clearer. His notion of ‘socializing investments’ may well encompass a government-backed infrastructure bank or fund to help get projects off the ground.

2.4 **Empirical Literature**

The studies of Onyenwife, Ekesiobi and Okoli (2023) and Madow,Nimonka, Brigette, and Camarero (2021) among others, are those most related to the current study. Onyenwife, Ekesiobi and Okoli (2023) investigated the connection between government domestic debt and standard of living in Nigeria. In their findings, domestic debt and credit had significant and positive relationships with GDP, while debt servicing had negative relationship with GDP. In addition, government expenditure had a positive but insignificant relationship with GDP.

Madow,Nimonka, Brigette, and Camarero (2021) dealt on the issues concerning the structure and composition of domestic debt and its impact on private investment in Nigeria employed multiple regression models and data from 1970 to 2012. The study established that domestic debt had a significant negative impact on domestic private investment in Nigeria. It was also seen from the study that domestic debt had a significant negative impact on foreign private investment in Nigeria with exchange rate and debt servicing showing positive effect on foreign private investment in Nigeria. Ozurumba and Kanu (2014) on the impact of different components of domestic debt on economic growth of Nigeria found that in the short-run, FGN Bond showed a positive significant association with economic growth, whereas development stock had significant but negative relationship. However, Treasury Bills and the lagged value of GDP variables were positively significant in the long-run.

Edame and Okoi (2014) assessed the implications of public debt on private investment in Nigeria over the period 1981 – 2012. The study made use of the instrumental variable technique of estimation and bootstrapping technique for the computation of normal based standard errors for the turning points. The results discovered that domestic debt had a linear and positive impact on private investment; external debt had a U-shaped impact on private investment; and private consumption expenditure had a negative impact on private investment. The external debt turning point was estimated to be 124.69 percent and was statistically significant at the 1% level. Mohammed, Mahfuzul and Igwike (2015) studied the connection between economic growth and debt, they employed many advanced econometric tools to investigate the effect of government borrowing on national output in 48 countries of Sub-Saharan Africa from 1995-2012. The findings exhibited proof of economic linkage among public debt and national output in eight economies from the forty-eight economies. The study agrees with the debt Lafer Curve theory. The study also found that economic association existed between public debt variables and national productivity. The research concluded that there is a connection between politics and physical policy and recommended the necessity to consider the impact of policy implementation on the growth of the economy. In the view of the study the capability of government to arouse growth is highly limited in addition to the fact that if government borrowing becomes high it will distress the economy. Igberi, Odo, Anoke and Nwachukwu (2016) examined the impact of growing government borrowing on the rate of unemployment in Nigeria for a

period spanning 1980 to 2015. The study adopted the ARDL approach and Wald test statistical procedure in their analysis. The results discovered a stable long-run equilibrium relationship between government borrowings and the rate of unemployment. According to the findings of the research, there was a positive and significant relationship between government securities and economic development. The study further recommended that, government should adhere to fiscal responsibility act to reduce spending.

Methodology

This study adopted the Keynesian theory of public borrowing. According to Keynes (1936), when the government increases its expenditure by borrowing from within the economy, total expenditure would increase. This leads to multiple increases in output and employment development leading to a reduction in poverty. Hence, increase in output and employment is evidence of economic growth in the economy. This according to Keynes is the multiplier effect of government expenditure.

Y= C+I+G----------3.1

Where

Y = Total output, C = Consumption, I = Investment (or Domestic Capital formation), G = Government Expenditure.

The change in output will be equal to the multiplier times the change in government expenditure.

AY = HAG) 1-b Where =1= K AY = KAG AY =K AG----------3.2

Therefore, change in output all over the change in government expenditure is equal to the multiplier. Hence, domestic borrowing can be used to influence macroeconomic performance and influence the output of the real sectors of the economy. The reduction in private investment results in a fall in aggregate demand, output and employment.

The variable in the empirical model is rooted in the Keynesian theory of public borrowing but abstracted from Mordecai (2016) with slight modifications. The dependent variable is poverty. While the independent variables are treasury bills, treasury certificates, government bonds, credit to private sector, and interest rate.

On the basis of theoretical and empirical exposition, the model for this study is expressed functionally as:

Poverty Equation.

POV=f(TRB, TRC, FGNB, CRPS, INT)----------3.3

$POV_t=\alpha_0 + \alpha_1 TRB_t + \alpha_2 TRC_t + \alpha_3 CRSP_t + \alpha_4 FGNB_t + \alpha_5 INT_t + U_t$----------3.4

Where: TRB= Treasury Bill

TRC= Treasury Certificate

CRPS= Credit to Private Sector

FGNB= Federal Government Bond

INT= Interest rate

Where: U_t is the residual error term.

The a priori expectation.

The expected signs of the coefficient according to economic theory are:

α<0;α2<0;α3<0;α4<0;α5<0;<0.

A positive relationship is expected between the dependent variable (poverty rate)

Description of Variables

POV= Poverty rate measured by household final consumption expenditure upon total population in Nigeria.

Treasury Bills: this is a short-term financial instrument issued by the Central Bank of Nigeria on behalf of the Federal government at a discount rate.

Credit to private sector: this is the total credit given by commercial banks to the private sector for investment purposes.

Treasury Certificate: This are short-term, non-marketable security used by the central bank of Nigeria to raise loan to the Federal Government where the need arises. Its tenor ranges from three months to one year.

Government Bonds: this is a debt instrument designed to raise money for investments that is both a fixed-income security. It is a loan agreement between an investor and the bond issuer.

Interest Rate: this is the rate of interest accrued to borrowing in Nigeria.

The Johansen co-integration approach was employed to determine the long-run equilibrium relationship among the variables in the model. As well as the Vector Error Correction Model (VECM).The vector autoregressive (VAR) model was used in forcasting a system of interrelated time series and for analyzing the dynamic impact of random disturbances on the system of variables.

The VECM is a special form of a VAR for I (1) variables that are co-integrated. The VECM model allows us to capture the short-run and the long-run relationship. For the purpose of this study, if the variables are co-integrated, then the short-run relationship based on the VECM specification can be expressed as:

$$\Delta Y_t = \alpha o + \alpha_1 \Delta Y_{t-1} + \ldots\ldots + \alpha_p \Delta Y_{t-p} + \beta_0 \Delta X_t + \beta_1 \Delta_{xt-1} + \ldots\ldots \beta_p \Delta X_{t-p} + \mu_{t.}$$

Where:

ε_{t-1} is the lagged value of the error correction term (ECT) from the regression $Y_t=a+bXt+et$ and ρ is the number of lags. A VECM consists of one period lagged co-integration equation et-1 and the lagged first difference of the endogenous variables Xt and Yt. VECM can be viewed as an adjustment mechanism whereby deviations from the equilibrium relationship in the previous period, measured by et-1, lead to adjustments in Yt. This specification ensures that the long-run behavior of the endogenous variable converges to the co-integrating relationship while allowing a range of short-run dynamics. The error correction term (ECT) indicates the extent of the deviations from the long-run equilibrium.

The ECT coefficient acts as the adjustments parameter that shows the proportion of the disequilibrium recovered during the subsequent period.

RESULT AND DISCUSSION

Table 4.1 DESCRIPTIVE STATISTICS

	POV	TRBILLS	TRCERT	CRPS	BOND	INTR
Mean	57.38667	1218.848	23.90844	30955.87	1592.747	11.76964
Median	57.10000	584.5400	0.170000	5648.400	0.000000	10.44635
Maximum	88.00000	3390.350	100.4600	90500.51	7564.940	25.66730
Minimum	32.60000	5.780000	0.000000	34.20000	0.000000	5.266667
Std. Dev.	17.55368	1342.810	38.00019	37068.92	2547.502	4.593128
Skewness	0.283584	0.686473	1.247205	0.633908	1.294876	1.118727
Kurtosis	1.768993	1.725775	2.884244	1.625561	3.113980	4.097430
Jarque-Bera	3.444484	6.578681	11.69153	6.555829	12.59963	11.64478
Probability	0.178665	0.037278	0.002892	0.037707	0.001837	0.002961
Sum	2582.400	54848.17	1075.880	1393014.	71673.63	529.6339
Sum Sq. Dev.	13557.79	79338048	63536.64	6.05E+10	2.86E+08	928.2602
Observations	45	45	45	45	45	45

The descriptive statistics of POV, TRBILLS, TRCERT, CRPS, BOND and INTR variables time scope from 1980-2024. The mean or average values of the variables within the period of study stood at, POV 57.38667, TRBILLS 1218.848, TRCERT 23.90844, CREOSECT, 30955.87, FGN-BOND, 1592.747, and INTR 11.76964 respectively.

The maximum values of POV, TRBILLS, TRCERT, CRPS, BOND, INTR variables within the period of study were: 8
8.00000, 3390.350, 100.4600, 90500.51, 7564.940, 25.66730, percent respectively. While the minimum values correspondingly stood at 32.600000, 5.780000, 0.000000, 34.20000, 0.000000, and 5.266667 percent, respectively.

The analysis of the skewness of the variables as shown above revealed that the variables

POV, TRBILLS, TRCERT, CRPS, BOND, INTR the variables were all skewed to the right as evident by their respective positive values of skewness. This implies that the mean values of these variables were greater than their respective median values, implying that they were higher than their sample mean.

CO-INTEGRATION TEST

Table 4.2

Date: 03/10/25 Time: 13:26
Sample (adjusted): 1982 2024
Included observations: 43 after adjustments
Trend assumption: Linear deterministic trend
Series: POV TRBILLS TRCERT CREPSECT FGN_BOND INTR
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.563458	96.33104	95.75366	0.0456
At most 1	0.435682	60.68955	69.81889	0.2148
At most 2	0.343041	36.08764	47.85613	0.3919
At most 3	0.197119	18.02189	29.79707	0.5644
At most 4	0.175646	8.581317	15.49471	0.4055
At most 5	0.006390	0.275654	3.841466	0.5996

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The co-integration test based based on the trace test as presented in table 4.2. above. The result of the trace test indicated the existence of one co-integrating equation at the five percent level of significance. This is so because the calculated trace test statistics values in the equations were all greater than the critical value at the five percent level of significance. From the result, it can be concluded that the variables are co-integrated and hence, there was a long-run relationship among the variables. This means that the independent variables which were treasury bills, treasury certificate, credit to private sector, federal government bond and interest rate all had a long run impact on the dependent variables which were poverty and per capita income.

VAR Lag Order Selection Criteria

Table 4.3

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1045.167	NA	6.40e+14	53.95730	54.25589	54.06443
1	-815.7408	364.7293	6.39e+10	44.70466	47.09336*	45.56171*
2	-758.4447	70.51828*	5.37e+10*	44.27922*	48.75804	45.88618

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Prior to the estimation of the vector error correction model, the lag length selection criteria test was first carried out which was aimed at selecting appropriate lag length for the variables in the specified equation. The lag length selection was carried out employing several criteria such as modified LR test statistics, Final prediction error, Akaike information criterion, Schwarz information criterion, and Hannan -Quinn information criterion. Table 4.3 presented the result of the lag length selection criteria for the selection of appropriate lag for the variables estimated in the inequality equation.

The VAR lag length selection criteria result as showed above revealed that the Akaike criterion indicated lag two. Which determines the fit of the VAR model for the equation. For this reason, the study proceeded to employ lag two in estimating the vector error correction.

VECTOR ERROR CORRECTION RESULT.

	Coefficient	Std. Error	t-Statistic	Prob.
CointEq1	-0.085949	0.230707	-3.033486	0.0063
D(POV(-1))	0.426236	0.177816	2.397060	0.0259
D(POV(-2))	-0.506390	0.188650	-2.684280	0.0139
D(TRBILLS(-1))	-0.717019	0.681292	-1.052441	0.3046
D(TRBILLS(-2))	0.265033	0.510000	-5.196710	0.0434
D(TRCERT(-1))	0.432154	0.558858	-7.731282	0.0480
D(TRCERT(-2))	0.941913	0.516607	1.823267	0.0825
D(CREPSECT(-1))	0.554359	0.621864	0.891447	0.3828
D(CREPSECT(-2))	0.898588	0.164014	5.478727	0.0104
D(FGN_BOND(-1)	0.025569	0.165360	0.154629	0.8786
DFGN_BOND(-2)	0.155030	0.148173	1.046276	0.3073
D(INTR(-1))	-5.48E-06	3.14E-06	-1.742272	0.0961
DINTR(-2))	-5.80E-06	2.66E-06	-2.181776	0.0406

R-squared	0.633309	Mean dependent var	-0.117568
Adjusted R-squared	0.371386	S.D. dependent var	2.710325
S.E. of regression	2.148886	Akaike info criterion	4.666246
Sum squared resid	96.97196	Schwarz criterion	5.362859
Log likelihood	-70.32555	Hannan-Quinn criter.	4.911835
F-statistic	2.417923		
Prob(F-statistic)	0.031201		

The result of the vector error correction model (VECM) as presented having the expected negative coefficient of -0.085949 and statistically significant. This implies that the previous year errors were corrected in the following year at an adjustment rate of 85.94 per cent. Indicating a high speed of adjustment from disequilibrium to equilibrium in the long run.

The R-square of 0.633309 showed that the estimated short-run equation has a good fit and a high explanatory power. Showing that approximately 63 percent of the systemic variations in the dependent variables has been explained by variations in the independent variables.

The F-statistics of 0.031201 showed that on the overall, the model is statistically significant at the five percent level of significance. This means that the independent variables have a joint impact on the dependent variables, which also implies that the variables have a high degree of linear relationship between the dependent and independent variables.

The short-run coefficient of one period lagged value of treasury bills (TRBILLS) was positive but not significant which implies a negative relationship with poverty in Nigeria. Also, a two period lagged value of treasury bills was negative and not statistically significant, implying a negative relationship with poverty in Nigeria.

On the other hand, two year lagged value of treasury bills (TRBILLS) was positive and significant with poverty in Nigeria. This is in line with economic theory. From the result, 1 per cent increase in two year lagged value of treasury bills led to 0.86 per cent increase in poverty in Nigeria. The probability value of lagged three period of treasury bills (0.00010) was less than the test significance level at 0.5 percent. Thus, it is concluded that treasury bills have a statistically significant effect on poverty in Nigeria.

Furthermore, the result of one period lagged value of treasury certificate (TRCERT) was positive and significant with poverty rate in Nigeria. This result is in conformity with a priori expectation of the study. From the result, one per cent increase in treasury certificate led to Also, a two-period lagged value of treasury certificate led to 94 per cent increase in poverty rate. The probability value was less than the test significance level at 0.05 per cent. Thus, the study concluded that the two-period lagged value of treasury certificate had a statistically significant effect on poverty rate in Nigeria.

Consequently, two period lagged value of commercial bank credit to private sector was positive and significant with poverty rate in Nigeria. This is in line with a priori expectation of the study. From the result, 1 per cent increase in two year lagged value of commercial bank credit to private sector led to 89 per cent increase in poverty in Nigeria. The probability value of (0.0014) was less than the test significance level at 0.5 percent. Thus, it is concluded that two year lagged value of commercial bank credit to private sector had a statistically significant effect on poverty rate in Nigeria.

Two-year lagged value of government bond (BOND) was positive and not significant. From the result, 1 per cent increase in government bond led to 15 per cent decrease in poverty rate in Nigeria. The probability value of 0.30 was higher than the test significance level at 0.05 per cent. Thus, the study concluded that two period lagged value of government bond had no statistically significant effect on poverty rate in Nigeria.

On the other hand, two year lagged value of interest rate was negative and significant with poverty rate in Nigeria. This is in conformity with a priori expectation. From the result, 1 percent increase in lagged two-year value of interest rate led to 58 per cent increase in poverty rate in Nigeria. The probability of lagged three-year government bond (0.58) was higher than the test significance of 0.05. Thus, the study concluded that two year lagged value of interest rate had a statistically significant effect on poverty rate in Nigeria.

The implication of the positive relationship between the independent variable to the dependent variable implies that domestic debt contributes immensely to increasing poverty rate in Nigeria.

DISCUSSION OF FINDINGS

Several findings were made from the estimated equation specified in chapter three above. The findings are as discussed below:

From poverty equation. The study revealed that treasury bills have a positive and significant impact on poverty in Nigeria within the period of the study. In other words, an increase in domestic debt components using treasury bills tends to increase poverty rate in the economy. This result is in line with the priority expectation of the study. This result agrees with the findings of Christensen (2014) who found that domestic debt markets in these countries are generally small, highly short term, with narrow investors' base, that domestic interest rate payment presents a significant burden to government budgets, and that the use of domestic debt has a significant crowding out effect on private investment.

The result is also in agreement with the findings of Edame and Okoi (2014), who concluded that domestic government debt in Nigeria has continued to suffer from confidence crisis as market participants have consistently shown greater unwillingness to hold longer maturities. The government has only been able to issue more short-term debt instruments.

The findings of the study are also in line with the views of Gurley and Shaw (1956), who found that 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. There is also the contentious view that a country that borrows is automatically immersed in the debt burden.

Additionally, Edame and Okoi (2023) clarified that indebtedness amounts to a problem, if a country could not afford to repay its debt. This can result from the cost of debt servicing which includes the repayment of principal and interest due on the loan, faulty domestic policies which range from project financing mismatch, inappropriate monetary and fiscal policies, and misapplication of the borrowed funds to generate funds that can easily repay the indebtedness as and when due.

Consequently, James (2006) and Ngerebo & Agundu (2010) opined that public debt has had either no significant or negative effects on the growth of the Nigeria economy because the borrowed funds were either channeled into non-productive ventures or diverted into private purses; suggesting that for the gains of the debt forgiveness to

be realized the War Against Corruption should be fought vigorously and won, and the principles of time value of money must be effectively applied to raising, application and repayment of amounts borrowed.

The Keynesian theory argued that increasing aggregate expenditure helps to increase aggregate consumption, increase investment and boost employment. Thus, governments tend to increase public expenditure and public debts in order to increase consumption, investment, and reduce unemployment.

Conclusion and recommendations

Specifically, the paper sought to investigate whether or not domestic debt exposure, using it determinants increases poverty rate in Nigeria. The result is mixed. Not many authors have examined domestic debt-poverty nexus in Nigeria. To explore this relationship, several factors were investigated in the model. It was discovered that treasury bills, government bonds and treasury certificates which are components of domestic debt exerted positive effects on poverty in Nigeria. As well as the inflation rate. On the other hand, credit to private sector was used as a control variable to reduce the effect of poverty, it was also found to behave a negative effect on poverty in Nigeria. We recommend that government should channel borrowed funds into productive sectors, increase tax revenue to reduce reliance on borrowing, and ensure debt ratios remain sustainable.
Additionally, stable macroeconomic policies, investment in agriculture and infrastructure, and good governance are crucial for economic growth which can help reduce poverty in Nigeria.

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