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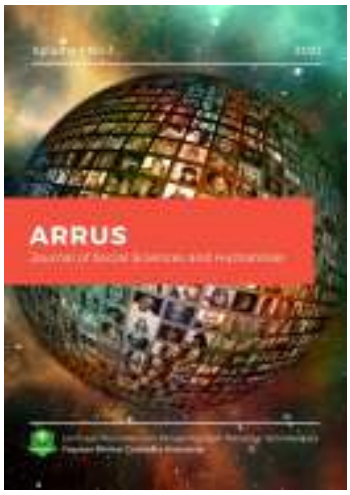

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RESEARCH

The Future of Nigeria's Economic Development: Implication of Domestic Debt Dynamics

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Abstract: The study examined the effect of domestic debt on economic development in Nigeria. Specifically, the study examined the effect of ways and means loan, treasury bills and treasury bond on human development index. The research adopted *ex-post facto* research design. Secondary data were collected from Debt Management Office, National Bureau of Statistics and Central Bank of Nigeria Statistical Bulletin spanning from 2000 to 2023. The econometric technique of Dynamic Least Squares, Augmented Dicky Fuller, Unit Root Test, and Johansen Co-integration test were employed in the data analysis. It was found that ways and means loans and treasury bonds have significant positive effect on economic development in Nigeria while treasury bills have a negative but non-significant effect on economic development in Nigeria. By implication, when long-term debt instrument is properly utilized, it brings about positive development. Therefore, the study recommended that the National Assembly must take its oversight responsibilities more seriously and ensure that Ways and Means loans are strictly allocated to productive, growth-enhancing expenditures. This is essential to avoid fueling inflation and triggering macroeconomic instability. Strengthening fiscal discipline through vigilant oversight will help safeguard the economy while promoting sustainable development.

Keywords: Domestic Debt, Economic Development, Ways and Means Loan, Treasury Bills, Treasury Bond

1. Introduction

A nation typically resorts to borrowing when its expenditures surpass its revenues. Nigeria, the largest economy in Africa, has faced persistent challenges in managing its domestic debt, which has had significant implications for its economic growth and development. The country's debt structure affects a wide range of stakeholders, including citizens, government institutions, private corporations such as banks, and the overall economy (Ikeobi, 2023). Domestic debt refers to the total obligations the federal government owes to local creditors, including commercial banks, the Central Bank, pension funds, and individual investors (Ikwuo et al., 2024). In Nigeria, domestic borrowing is primarily used to finance budget deficits. As of 2022, the nation's total domestic debt stood at approximately N49.85 trillion. This figure rose to N54.13 trillion in the second quarter of 2023 and further increased to N55.93 trillion by the third quarter, reflecting a continuous upward trend in borrowing (DMO, 2023).

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Nigeria's Ways and Means loan has emerged as a significant contributor to the country's growing domestic debt burden. These loans, provided by the Central Bank of Nigeria (CBN) to the Federal Government, are primarily used to bridge budget deficits and cover recurrent expenditures. Over the years, the volume of these loans has expanded dramatically, raising serious concerns about their sustainability and long-term economic implications. In 2018, the total stood at N9.08 trillion, rising to N14.17 trillion in 2020 and reaching approximately N20.62 trillion by 2022—a staggering increase of 145% over four years (DMO, 2023). This rapid escalation has intensified worries about fiscal discipline, inflationary pressures, increased debt servicing obligations, and the crowding out of private sector access to credit, all of which pose risks to economic stability and growth. The trend continued in 2023, with the CBN lending an additional N3.8 trillion to the Federal Government in the second half of the year, pushing the total Ways and Means loan to N8.2 trillion in December 2023, up from N4.4 trillion in June. Earlier, in May 2023, the cumulative balance had reached N26.95 trillion before it was securitized and officially included in the federal government's domestic debt portfolio. This ongoing reliance on central bank financing underscores the urgent need for fiscal reforms and greater oversight to ensure economic sustainability.

Nigeria's treasury bills, a type of short-term government security, have become a crucial component of the country's financial landscape. These bills, issued by the Central Bank on behalf of the Federal Government, provide a vital source of funding for government operations and play a key role in monetary policy implementation. As of 2022, Nigeria's Treasury bill market has experienced significant growth, with outstanding bills totaling N6.3 trillion, average annual issuance of N2.5 trillion between 2020 and 2022, and yield rates ranging from 5% to 15% per annum depending on the tenure and maturity periods varying from 91 days to 365 days (DMO, 2023). In 2023, the total treasury bills stood at N7.5 trillion with average annual issuance of N3 trillion. Yield rate oscillated from 7%-17% per annum and maturity periods of 91 days (DMO, 2023). The significance of Treasury bills in Nigeria's economy is evident in their role in financing government deficits, impact on liquidity management, influence on interest rates and its attractiveness as a low-risk investment option.

As of 2022, Nigeria's Treasury bond market has demonstrated significant growth and activity with outstanding bond totaling approximately N18.1 trillion with average annual issuance of N2.2 trillion between 2020 and 2022. It had a yield rates ranging from 10% to 18% per annum, depending on the tenure and maturity periods varying from 2 to 30 years (DMO, 2023). The importance of Treasury bonds in Nigeria's economy is evidence in their role in financing infrastructure development and other capital projects. It also contributes to the development of domestic bond market. As of 2023, Nigeria's total Treasury bonds stood of N22.5 trillion with an average annual issuance of N3 trillion and yield rates of 12% - 20% per annum and maturity periods of 2-30 years. Nigeria's economic development over the years has been marked by significant challenges and reforms. The country's growth rates decreased and GDP per capital flattened between 2015 and 2022, driven by policy missteps and shocks. Domestic debt influences economic development positively and negatively (Ikwuo et al, 2024). There has been a lot of emphasis on continuous domestic borrowing by government in the short-run to finance economic growth and create the basis for economic development for the long-run piloted mechanism for economic stimulant that will trigger private sector contribution (Ikwuo et al., 2025a)

Despite Nigeria's high levels of domestic debt, the country continues to experience sluggish economic development, marked by declining Human Development Index (HDI) indicators, rising inflation, and persistent poverty. Nwoye et al. (2023) argued that the government's heavy dependence on domestic borrowing has produced a crowding-out effect, limiting credit availability to the private sector and discouraging investment, while simultaneously deepening fiscal vulnerabilities and weakening the state's capacity to implement development-focused policies. Compounding the problem is the structure of Nigeria's domestic debt, which is heavily weighted toward short-term instruments with high interest rates. This has contributed to a debt trap, where a growing share of government revenue is consumed by

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debt servicing rather than channeled into critical development needs such as infrastructure, health, and education.

As a result, Nigeria's fiscal space has significantly narrowed, constraining the government's ability to deploy effective fiscal interventions or respond swiftly to economic shocks. The implications of this include rising debt distress, difficulties in meeting repayment obligations, and an exacerbation of poverty and inequality. Moreover, sustained high domestic debt levels threaten to precipitate a full-blown debt crisis, with serious economic and social consequences, including currency devaluation and a reduction in the country's creditworthiness (Igbodika et al., 2016). Declines in credit ratings further increase borrowing costs, making future financing even more burdensome. In light of these challenges, this study seeks to examine the impact of domestic debt on Nigeria's economic development, with a view to informing more sustainable fiscal and debt management strategies.

1.1. Objectives of the Study

The broad objective of the study is to ascertain the effect of domestic debt on the economic development in Nigeria during the period 2000 to 2023. The specific objectives are:

(1). To examine the effect of ways and means loans on economic development in Nigeria.
(2). To determine the effect of treasury bills on economic development in Nigeria.
(3). To ascertain the effect of treasury bonds on economic development in Nigeria

2. Literature Review

2.1. Conceptual Review

Nigeria's domestic debt refers to the total amount of debt owed by the Nigerian government to domestic creditors, including federal government bonds, ways and means Advances, Treasury bill, overdrafts, commercial banks loans and other short-term and long-term instruments. (Ikwuo, et al, 2024). Nigeria's domestic debt has grown significantly over the years, driven by factors such as: increasing government expenditures, revenue shortfalls, fiscal deficits, debt financing of budget deficits and monetary policy implementation (DMO, 2023). As of 2022, Nigeria's domestic debt stood at approximately N25 trillion ($60 billion USD). This represents a significant portion of the country's total debt stock. Nigeria's domestic debt is characterized by high debt stock, short-term maturity high interest rates, concentrated ownership and limited fiscal space.

Ways and Means (WAMs) advance is loan facility used by the CBN to finance the government during temporary budget shortfalls (CBN, 2024). It is short-term loan facility provided by a central bank to the government allowing them to bridge the temporary cash flow gaps in their budget by essentially borrowing money from the central bank to meet immediate financial needs usually with the expectation of repayment within a short period. Thus, essentially, it is a mechanism for government to access emergency funding when necessary. The ways and means balance has fluctuated over the years, influenced by various factors such as government spending, revenue generation and economic conditions. As of 2022, Nigeria's Ways and Means stood at approximately N20.62 trillion, a significant increase from N14.17 trillion in 2020 and N9.08 trillion in 2018. This represents a growth rate of 145% over the past four years (DMO, 2022).

Treasury Bills are short-term instruments issued by the CBN on behalf of the Federal Government of Nigeria at a discount (Ikwuo et al, 2024). These do not yield any interest but are issued at a discount and rapid at par when it gets matured. The first treasury bills were introduced in April 1960 primarily to develop the local money market and create avenue for investment of short term funds (Ofurum & Fubara, 2022).

As of 2022, Nigeria's Treasury bill market has experienced significant growth with outstanding bills totaling approximately N6.3 trillion. Average annual issuance of N2.5 trillion between 2020 and 2022 with yield rates ranging from 5% to 15% per annum, depending on

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the nature and maturity periods varying from 91 days to 365 days. The significance of Treasury bills in Nigeria's economy is evident in their role in financing government deficits, impact on liquidity management influence on interest rates and attractiveness as a low-risk investment option.

Treasury bonds refer to types of long-term government securities, play a vital role in the country's debt management strategy and economic development. These bonds issued by the Debt Management office (DMO) on behalf of the Federal Government, provide a crucial source of funding for government projects and initiatives. Treasury bonds are long-term debt instruments, these instruments are managed by the establishment of a sinking fund to facilitate the redemption of such maturing instruments. Owing to the floatation of new issues of treasury bonds and conversion of part of the treasury certificate outstanding. Treasury bonds outstanding rose to N279, 502 million amounting to 68.2 percent of domestic debt stock at the end of 1995. As of 2022, Nigeria's Treasury bond market has demonstrated significant growth and activity with outstanding bonds totaling approximately N18.1 trillion (DMO, 2023).

Economic development is a sustained increase in posterity and quality of life realized through innovation, lowered transaction cost, and the utilization of capabilities towards the responsible production and diffusion of goods and services. It is programmes, policies or activities that seek to improve the economic wellbeing and quality of life for a community. Measuring economic development is a varied and difficult task. Development in countries can be measured in several different ways. Some are economic measures and others are social measures. They are several measures of economic development such as gross national product/ gross national income, per capital income, incidence of poverty and standard of living. Among all these parameters, human development index stands out as the best measure of development because of its embodiment of both economic and social factors.

A prudent domestic debt management helps economic development and stability through mobilizing resources with low borrowing cost and limiting financial risk exposure (Osadume & Ikubor, 2022). Government uses domestic debt as an instrument to finance its expenses. On the contrary, if domestic debt is not properly utilize, it may hinder economic development and become detrimental to the economy. Domestic debt if not properly utilized too can have a severe implication for the economy because its servicing will make serious in road in government revenue thereby creating a persistent deficit. The implication of this is that government will have little resources at its disposal to spend on developmental projects. There has been a lot of emphasis on continuous domestic borrower by government in the short-run to finance economic growth and create the basis for economic development for the long-run piloted mechanism for economic stimulant that will trigger private sector contribution (Osadume & Ikubor, 2022).

2.2. Empirical Review

Victor et al. (2022) empirically reviewed the implication of excessive internal borrowing and debt management with particular emphasis on Nigeria. The main objective of the study was to assess the implication of excessive internal borrowing and debt management in Nigeria. The study adopted ex-post facto research design. Data collected were tested and analyzed with Regression analysis, correlation analysis. Findings revealed that internal borrowing has affected the growth of the economy negatively, a positive relationship exist between domestic debt servicing and internal borrowings.

Chukwu (2023) examined the impact of public debt and debt servicing on economic growth in Nigeria. The main objective of the study was to examine the impact of public debt and debt servicing on economic growth in Nigeria. Secondary data collected from Central Bank of Nigeria Statistical Bulletin was used by the study. Ordinary Least Square (OSL) was used in estimating the relationship between the dependent variable and independent variables. The

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result showed that public debt servicing has no significant impact on economic growth in Nigeria.

Ikeobi (2023) assessed the impact of domestic debt on the Nigerian economy. The main objective of the study was to assess the impact of domestic debt on the Nigerian economy from 2008 to 2020. The study used secondary data which were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin. The data was analyzed through the use of multiple regression model and Ordinary Least Square (OLS) Model. Results showed that Treasury bills have not significantly impacted the economy while government bonds exhibited significant positive impact on the economy.

Nguyen and Nguyen (2023) studied the influence of government debt on economic growth in Vietnam. The main objective of the study was to examine the asymmetric impact of public debt on economic growth in Vietnam using annual time series data. The study adopted ex-post facto research design. Non-linear Autoregressive Distributed Lag (NARDL) was employed in the study. The result showed a disproportional association between public sector debt levels and short and long-term economic growth.

Abate (2023) examined the nexus between public debt and economic growth in Ethiopia. The main objective of the study was to examine the nexus between public debt and economic growth in Ethiopia. A time series data was collected over the period 1982 to 2018. Instrumental variables regression model with a quadratic specification was used to test threshold effect of debt. The findings revealed that there are evidences that supported the existence of asymmetric relationship between the indicated variables. It was found that a major positive shock in debt was favourable to economic growth while the effect of minor and negative shock to debt was infavourable.

Alemu, Choramo and Jeldu (2023) examined external debt, institutional quality and economic growth in East African countries. The main objective of the study was to examine external debt, institutional quality and economic growth in East African countries. The study used secondary data and adopted ex-post facto research design. Autoregressive Distributed Lag (ARDL) model through a pooled mean group (PMG) estimator over a period of 22 years. Findings revealed a significant long-term positive relationship between the stock of external debt as a percentage of GNI and economic growth.

2.3. *Theoretical Framework*

This study is anchored on Neoclassical Theory. The Neoclassical Theory, developed by Solow and Swan in 1956, posits that long-term economic growth is driven by capital accumulation, labor, and technological progress. It suggests that debt, when used productively, can enhance capital formation and stimulate economic development. However, the theory also warns that excessive debt may hinder growth if it leads to inefficiencies or diverts resources from productive use.

This is because it is expected that the investment will increase if the borrowed funds are utilized well. Growth should rise and allow for timely debt repayment as long as nations utilize borrowed funds for feasible projects without suffering from macroeconomic instability, policies that distort economic incentives or large hostile shock. By extension, the indirect impact of indebtedness is clearly noticed on investment. Low resources occasioned by high debt service affects negatively on investment which invariable reduces growth rate. The relevance of this theory to the study is because it deals directly on the impact of debt on economic development.

2.4. *Gap in Literature*

The literature review reveals several notable gaps. Firstly, most existing studies on domestic debt in Nigeria have focused primarily on its impact on economic growth, rather than economic development. Additionally, research examining the relationship between domestic debt and economic development largely concludes around the year 2020, leaving more recent

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trends unexplored. Furthermore, the majority of these studies are grounded in Keynesian theory. To address these limitations, this study shifts the focus to economic development as measured by the Human Development Index (HDI), extends the analysis period through 2023 to incorporate recent data, and adopts the Neoclassical theory as its theoretical framework, providing a fresh perspective compared to the more commonly used Keynesian approach.

To achieve the specific objective of the study, the following testable hypotheses were formulated and stated in the null form;

HO1: Ways and means loan has no significant effect on economic development in Nigeria.
HO2: Treasury bill has no significant effect on economic development in Nigeria.
HO3: Treasury bond has no significant effect on economic development in Nigeria.

3. Research Method and Materials

This research work adopted ex-post facto research design. The reason for using ex-post facto research design is because of the time series data that already existed which is used for the analysis (Ikwuo et al., 2025b; Elom et al., 2025; Muojekwu et al., 2025). This study used secondary data sourced from the Debt Management Office (DMO), Central Bank of Nigeria Statistic Bulletin and National Bureau of Statistics (NBS).

To estimate the regression, equation, the study formulated the general multiple regression model using Ordinary Least Square (OLS) in line with the specific objectives variables of the study. The regression model is specified by Frances Galton (1974) thus:

$$Y = a + bx \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

Economic Development is a function of Domestic debt. However, for proper flow and measurement of variable functions in this study, we proxy economic development with HDI. To express the model in multiple regressions equation we modified to suit the respective hypotheses. Thus, the model is stated as follows

$$Y1 = B0 + B1X1 + B2X2 + B3X3 + Uit \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2)$$

Inflation was included as a control variable to isolate the specific effects of domestic debt on economic development by accounting for macroeconomic instability that could otherwise distort the results. Since inflation directly affects purchasing power, investment decisions, and overall economic performance, controlling for it helps ensure that the relationship between debt variables and HDI is not confounded. By including inflation, the model becomes more robust.

Thus, the equation became:

$$Y1 = B0 + B1X1 + B2X2 + B3X3 + B4INF4Uit \ldots\ldots\ldots\ldots\ldots\ldots \quad (3)$$

Where,

Y1 = Dependent variable,
X1 – X5 = independent variables.

This model is modified and expressed as follows

$$HDI = B0 + B1WaMT1 + B2\ TRBI2 + B3\ TRBO3 + B4\ INF4 + Uit \ldots\ldots\ldots \quad (4)$$

Where:

HDI	=	Human Development Index
WaM	=	Ways and Means Loans
TRBI	=	Treasury bills
TRBO	=	Treasury bonds
INF	=	Inflation
B0	=	intercept

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B1 – B4 = Coefficient of parameters estimate and;
Uit = Gaussian white noise

Human Development Index is measured by life expectancy at birth mean and expected years of schooling and GNI/capital

Ways and Means advance is measured in this study as the total amount in figures of national debt owed by Nigerian government to Central Bank of Nigeria (CBN)

Treasury bills is measured operationally in this study as the total amount in figures of national debt acquired through selling of treasury bills to the general public

Treasury bonds are measured in this study as the total amount in figures of national debt acquires through selling of treasury bonds to the general public.

Inflation is measured in this study as the annual inflation figure

The time series data gathered were estimated using the multiple regression involving Ordinary Least Square (OLS) model. Statistical test were conducted to test the overall significance of the regression equation and the presence or otherwise of autocorrelation among explanatory variables at 5% level of significance, while some diagnostic tests were carried out on the regression model in order to test the reliability and the validity of the historical time series data with the aid of E-view 10.0.

4. Results and Discussion

4.1. Descriptive Analysis and Model Diagnostics

Table 1 The Descriptive Analysis of The Data.

	HDI	***WAM***	***TRBI***	***TRBO***	***INF***
Mean	0.495708	6220.458	1804.494	293.3954	13.33625
Median	0.495500	4051.500	1925.420	344.1450	12.71500
Maximum	0.548000	23071.00	3579.800	430.6100	29.66000
Minimum	0.430000	236.0000	465.5400	10.99000	5.390000
Std. Dev.	0.036361	6754.465	1062.033	140.2962	5.095348
Skewness	-0.272818	1.308949	0.035324	-0.643998	1.209967
Kurtosis	1.988806	3.707601	1.364648	1.950411	5.498583
Jarque-Bera	1.320232	7.354087	2.679367	2.760573	12.09900
Probability	0.516791	0.025298	0.261928	0.251506	0.002359
Sum	11.89700	149291.0	43307.86	7041.490	320.0700
Sum Sq. Dev.	0.030409	1.05E+09	25942031	452709.6	597.1392
Observations	24	24	24	24	24

Source: Author's Computations using E-views, 10

In Table 1, the Human Development Index (HDI) has a mean value of 0.4957, indicating a moderate level of human development in Nigeria over the study period. The minimum value of 0.4300 and the maximum of 0.5480 suggest some fluctuations in development levels. The standard deviation of 0.0364 shows that the data is relatively consistent around the mean, though there is still some variation. The negative skewness of -0.2728 indicates that the distribution is slightly tilted toward higher values of HDI, meaning that in many years, HDI was closer to the higher end of the scale. The kurtosis value of 1.9888 is below the threshold of 3, suggesting a relatively flat distribution with fewer extreme values than a normal distribution. The Jarque-Bera probability value of 0.5168 indicates that the HDI data is normally distributed, as the value is above the typical threshold of 0.05.

For Ways and Means loans (WAM), the mean is 6220.46, indicating that over the study period, the average amount of WAM loans extended was substantial. The maximum value of 23,071.00 and minimum of 236.00 reflect a significant range in the amount of loans, suggesting periods of both high and low reliance on WAM. The standard deviation of 6754.47 points to high variability in WAM loans, suggesting that they were not consistently at a fixed level. The skewness of 1.3089 indicates a positively skewed distribution, meaning there were

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more years with lower values of WAM loans and fewer years with very high loans. With a kurtosis value of 3.7076, the distribution is more peaked than normal, with more frequent extreme values. The Jarque-Bera probability of 0.0253 suggests that the WAM data is not normally distributed, as it is below the 0.05 significance level.

For Treasury bills (TRBI), the mean value is 1804.49, indicating that over the 24 years, the average value of Treasury bills was moderately high. The maximum value of 3579.80 and minimum of 465.54 suggest considerable fluctuation in the issuance of Treasury bills, likely due to changing fiscal needs. The standard deviation of 1062.03 shows moderate variability in the values of Treasury bills over time. The skewness of 0.0353 is very close to zero, implying that the data is almost symmetric, with no significant lean toward higher or lower values. The kurtosis value of 1.3646 indicates a relatively flat distribution with fewer extreme observations than a normal distribution. The Jarque-Bera probability of 0.2619 suggests that the data is normally distributed, as it exceeds the 0.05 threshold.

For Treasury bonds (TRBO), the mean of 293.3954 indicates that, on average, Nigeria issued Treasury bonds at a moderate level during the period. The maximum of 430.61 and minimum of 10.99 highlight the wide range in issuance amounts, reflecting periods of heavy and minimal bond issuance. The standard deviation of 140.2962 shows moderate variation in the values of Treasury bonds, though they were generally more stable than WAM loans. The skewness of -0.6440 indicates a negative skew, meaning that there were more years with higher bond issuance values and fewer years with very low values. The kurtosis value of 1.9504 suggests that the distribution is slightly platykurtic, with fewer extreme values compared to a normal distribution. The Jarque-Bera probability of 0.2515 suggests that the data is normally distributed, as it is above the 0.05 significance level.

For inflation (INF), the mean value of 13.3363 reflects a relatively high average inflation rate during the period under study. The maximum value of 29.66 and the minimum of 5.39 demonstrate a broad range of inflationary pressures, suggesting periods of both high and low inflation. The standard deviation of 5.0953 indicates considerable volatility in inflation rates over time. The skewness of 1.2099 reveals a positively skewed distribution, meaning that the data is more concentrated at the lower end with fewer instances of extreme inflation rates. The kurtosis value of 5.4986 is high, indicating a leptokurtic distribution with a higher frequency of extreme values than a normal distribution. Finally, the Jarque-Bera probability of 0.0024 suggests that inflation data is not normally distributed, as the probability is well below 0.05.

4.2. Unit Root Test

The essence of the unit root test is to determine whether the variables are stationary or contain a unit root, which helps prevent spurious regression results in time series analysis. Table 2 shows the unit root test.

Table 2. Summary of Unit Root Test Results Using Augmented Dickey-Fuller

Variables	T-ADF	Lag Length	P-value	Remark
HDI	-4.563769	I(1)	0.0017	Stationary
LogWAM	-5.637642	I(1)	0.0001	Stationary
LogTRBI	-2.622404	I(1)	0.0113	Stationary
LogTRBO	-7.410300	I(1)	0.0000	Stationary
LogINF	-3.902168	I(1)	0.0078	Stationary

Source: Author's Computations using E-views, 10

The unit root test results in Table 2, using the Augmented Dickey-Fuller (ADF) test, indicate that all variables-HDI, LogWAM, LogTRBI, LogTRBO, and LogINF-are stationary at first difference, I(1). The test statistics (T-ADF values) for each variable are sufficiently negative, surpassing the critical values, and their corresponding p-values are all below the 0.05 significance level. This confirms the rejection of the null hypothesis of non-stationarity, implying that after differencing once, each variable becomes stable over time. The stationarity

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of these variables ensures the reliability of any further econometric analysis, such as regression or cointegration tests, as it reduces the risk of spurious relationships.

4.3. *Normality Test*

The normality test, represented in Figure 1, examines whether the residuals follow a normal distribution, which is essential for valid statistical inference.

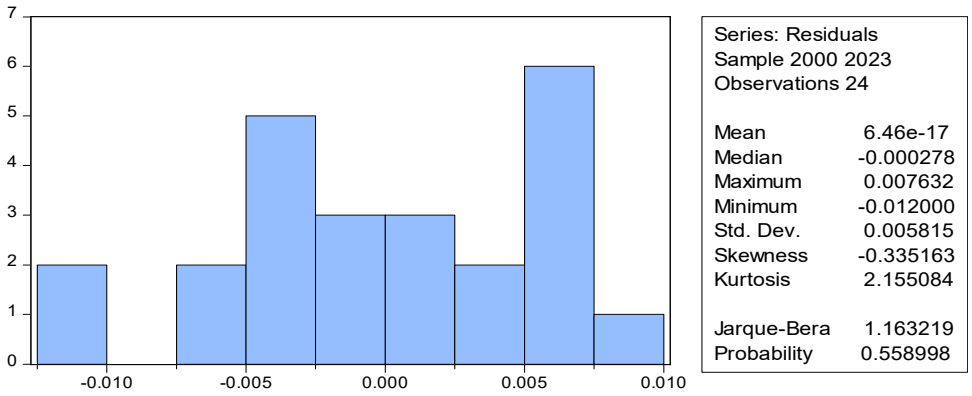

Figure 1 Normality Test
Source: Author's Computations using E-views, 10

The Jarque-Bera test statistic for normality yields a p-value of 0.558998, which is well above the typical 0.05 threshold for significance. This indicates that there is no significant deviation from normality, and the residuals can be assumed to be normally distributed. This is important for ensuring that the model's estimation results are unbiased and reliable, particularly when making inferences or conducting hypothesis tests.

4.4. *Cointegration Test*

The essence of the cointegration test is to determine whether there exists a long-term relationship between the variables in the model.

Table 3 Cointegration Test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.894894	105.6902	69.81889	0.0000
At most 1 *	0.651730	56.12892	47.85613	0.0069
At most 2 *	0.526052	32.92382	29.79707	0.0211
At most 3 *	0.454806	16.49737	15.49471	0.0352
At most 4	0.133477	3.151867	3.841466	0.0758

Source: Author's Computations using E-views, 10

In Table 3, the Unrestricted Cointegration Rank Test (Trace) results indicate that there is a significant cointegration relationship at different levels. Specifically, the test suggests that there is at least one cointegrating equation (CE) as the p-value for "None" is 0.0000, which is below the critical threshold of 0.05. The results for "At most 1" and "At most 2" also show significant relationships, with p-values of 0.0069 and 0.0211, respectively. This implies that a long-term equilibrium relationship exists between the variables, and any short-term deviations from this equilibrium will correct themselves over time.

Table 4 Test of Hypotheses

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Dependent Variable: HDI
Method: Dynamic Least Squares (DOLS)
Date: 02/17/25 Time: 21:17
Sample (adjusted): 2000 2023
Included observations: 24
Cointegrating equation deterministics: C
Fixed leads and lags specification (lead=1, lag=1)
Long-run variance estimate (Bartlett kernel, Newey-West fixed bandwidth = 3.0000)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGWAM	0.067984	0.001859	36.57356	0.0000
LOGTRBI	-0.002395	0.002974	-0.805384	0.4657
LOGTRBO	0.018175	0.002732	6.653443	0.0026
LOGINF	0.026496	0.006498	4.077520	0.0151
C	0.200321	0.017529	11.42785	0.0003

R-squared	0.999614	Mean dependent var	0.499286
Adjusted R-squared	0.998072	S.D. dependent var	0.031049
S.E. of regression	0.001363	Sum squared resid	7.44E-06
Long-run variance	6.27E-07		

Source: Author's Computations using E-views, 10

In table 4, the adjusted R-squared value is 0.998072, which indicates that approximately 99.81% of the variation in HDI (Human Development Index) is explained by the independent variables in the model. This suggests an excellent fit of the model to the data. The high value of the adjusted R-squared supports the validity of the model, indicating that the independent variables-Ways and Means loans (LOGWAM), Treasury bills (LOGTRBI), Treasury bonds (LOGTRBO), and inflation (LOGINF)-are highly relevant in explaining the variations in economic development (HDI) in Nigeria. With such a high explanatory power, the model can be considered robust for making valid inferences regarding the effects of the variables on HDI.

The coefficient for LOGINF is 0.026496, with a p-value of 0.0151. This result suggests a statistically significant positive effect of inflation on economic development at the 5% significance level. The marginal effect of 0.026496 indicates that for every 1% increase in inflation, HDI is expected to increase by approximately 0.0265%. Since the p-value is less than 0.05, we accept the alternate hypothesis that inflation has a positive and significant effect on HDI. The constant term (C) is 0.200321, with a p-value of 0.0003. The constant represents the expected value of HDI when all the independent variables are zero. Since the p-value is extremely low, we can confidently state that the constant is statistically significant, contributing positively to the overall value of HDI.

4.5. Test of Hypothesis I

H01: Ways and Means loans have no significant effect on economic development in Nigeria.

The coefficient for LOGWAM is 0.067984, with a p-value of 0.0000, which indicates a highly significant effect at the 5% significance level. This suggests that Ways and Means loans have a positive and statistically significant effect on economic development in Nigeria. The marginal effect of 0.067984 means that for every 1% increase in the level of Ways and Means loans, the Human Development Index (HDI) is expected to increase by approximately 0.068%. Since the p-value is less than 0.05, we reject the null hypothesis and accept the alternate hypothesis that Ways and Means loans have a significant positive effect on economic development in Nigeria (b = 0.067984, p-value = 0.0000).

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The positive effects of Ways and Means loans and Treasury bonds highlight the importance of accessible financing for public sector activities and infrastructure investments. However, the presence of a non-significant and negative effect of Treasury bills suggests that short-term debt instruments may not be effective in driving economic growth. This underscores the differential impact of various debt instruments on economic outcomes, reflecting the importance of strategic debt structuring to achieve macroeconomic stability. The results also imply that while government borrowing can be beneficial, its effectiveness depends on the type of instrument used and the channels through which funds are deployed. Some authors corroborated our findings. Amilcar (2016) investigated the impact of domestic debt on economic development. His findings revealed that domestic debt has positive and significant effect on economic development.

4.6. Test of Hypothesis II

H02: Treasury bills have no significant effect on economic development of Nigeria.

The coefficient for LOGTRBI is -0.002395, with a p-value of 0.4657. This coefficient indicates a very small negative effect, but the p-value is much greater than 0.05, suggesting that the effect is not statistically significant at the 5% level. The marginal effect of -0.002395 suggests that for every 1% increase in Treasury bills, HDI is expected to decrease very slightly by approximately 0.0024%. However, due to the high p-value, we accept the null hypothesis (H02), meaning that Treasury bills have a negative but non-significant effect on economic development in Nigeria (b = –0.002395, p-value = 0.4657).

The findings suggest a potential trade-off between short-term liquidity management and long-term economic growth. The reliance on Treasury bills, which may crowd out private sector investment, indicates that excessive short-term borrowing could weaken economic expansion by diverting resources from productive activities. This result is in line with the findings of Haffner et al (2017) which showed that treasury bills have a negative effect on economic development.

4.7. Test of Hypothesis III

H03: Treasury bonds have no significant effect on economic development in Nigeria.

The coefficient for LOGTRBO is 0.018175, with a p-value of 0.0026, indicating a statistically significant positive effect at the 5% significance level. The marginal effect of 0.018175 suggests that for every 1% increase in Treasury bonds, HDI is expected to increase by approximately 0.0182%. Since the p-value is less than 0.05, we reject the null hypothesis and accept the alternate hypothesis that Treasury bonds have a significant positive effect on economic development in Nigeria (b = 0.018175, p-value = 0.0026).The positive impact of Treasury bonds points to the ability of long-term debt financing to support sustainable development. These results reinforce the idea that economic development is influenced not only by the availability of credit but also by the efficiency of its utilization in development-focused projects. This result is in line with the findings of Ikeobi (2023) which showed that treasury bonds have positive and significant effect on economic development

5. Conclusion

The study examined the effect of domestic debt on economic development in Nigeria spanning from 2000-2023 with special emphasis on Ways and Means advances, treasury bills and treasury bonds. The adopted *ex post facto* research design where secondary data were obtained from CBN, DMO and NBS, while the collected were analysed using multiple regression involving OLS model. Base the findings, study therefore conclude that despite the mixed results obtained from the test of the hypotheses, that domestic debts contributes to economic development especially when put in the productive sector of the economy. Based on the findings, the study therefore make the following recommendations;

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(1). The National Assembly must take its oversight responsibilities more seriously and ensure that Ways and Means loans are strictly allocated to productive, growth-enhancing expenditures. This is essential to avoid fueling inflation and triggering macroeconomic instability. Strengthening fiscal discipline through vigilant oversight will help safeguard the economy while promoting sustainable development.
(2). The Federal Government of Nigeria should reconsider its reliance on Treasury bills for financing economic activities and instead focus on instruments that directly contribute to long-term economic development.
(3). The Debt Management Office should prioritize the issuance of Treasury bonds for financing large-scale infrastructure and development projects to enhance sustainable economic growth.

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