BOND MARKET DEVELOPMENT AND ECONOMIC GROWTH IN NIGERIA

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Abstract

For many years, finance researchers have focused on the bond market's importance in promoting economic growth by enabling capital accumulation and offering financing for firms and government agencies to execute capital-intensive projects. This study examines how the emergence of the bond market has affected Nigeria's economic expansion from 2010 and 2022. The overall bond volume and the volume of Nigerian sovereign bonds were used to gauge the development of the bond market, while the gross domestic product was used as an indicator of economic growth. Information was gathered from secondary sources, including the Security and Exchange Commission, the Nigerian Exchange Group, and the Central Bank of Nigeria, Autoregressive Distributed Lag was the estimation method used in this investigation. The findings show that the rise of the debt market has a favourable and noteworthy impact on Nigeria's economic expansion. According to the study, authorities should make it easier for the bond market to run smoothly in order to draw in more capital through new issues. This will boost market capitalisation, trading volume, and liquidity, all of which will enhance the performance of the Nigerian bond market and have a positive effect on capital formation and the nation's overall economic growth.

Keywords: Bond market; Economic growth; Total volume of bond traded; FGN bond

1. Introduction

One of the most important components of every economy's financial system is the capital market, of which the bond market is a significant component. Therefore, the bond market is basically a venue for buying and selling debt instruments that are issued by governments, corporations, and states, including sovereign governments (Securities and Exchange Commission [SEC], 2010).The mobilisation of idle funds for effective deployment to increase economic productivity is mostly the responsibility of the financial sector. The general stability of the financial system and the welfare of the general public depend on the efficient allocation of these resources (Ndinda, 2012).

Both corporations and the government have access to a number of funding options for their operations. The money market functions as a short-term platform that offers funding for investments and projects that are typically completed within a year. The instruments that are traded on the markets give entities liquidity, primarily for working capital and other short-term commitments (Ehrmann et al., 2005). Deposit money banks dominate the money market, and central banks use monetary tools to effectively regulate it. However, because it can supply large amounts of funds to finance business projects and investments, as well as government infrastructure and high capital-intensive projects for macroeconomic restructuring, financial system safety, economic improvement, and capital accumulation through the ability to create long-term financing, the bond market has grown to become a significant part of the financial system and has surpassed the equities market in the global financial structure (Semmler & Mateane, 2012).

Therefore, a major contributing element to the development of bond markets is the difficulty of obtaining long-term funding for economic actors through the banking industry, which seems to dominate the financial systems of developing nations. By limiting their deployment to capital projects, the monetary regulations make sure that banks' combined resources from their conventional intermediation duties are not used for longer than necessary to prevent potential losses for the lenders. The emergence of a lengthier and more expansive market has become necessary due to the money market's evident constraints. As a result, governments and

corporations worldwide pool long-term financial resources from the debt market (Nwiado & Deekor, 2013), making it a desirable and affordable source of funding for investments and development. Bond financing has less expansionary tendencies than short-term bank financing, according to specialists who strongly advocate bond issue (Romer, 1993, cited in Idoko, 2002).

According to Standard and Poor's (S&P, 2024), institutional investors, including as mutual funds, pension funds, and insurance companies, held the majority of the $135 trillion global bond market capitalisation, with individual investors holding a smaller share. However, as of 2022, the market capitalisation of global stocks is projected to be $101.24 trillion. This represented a 16 percent decrease from $120.82 trillion in 2021 (SIFMA Research, 2023). This indicated that compared to international equity transactions, the bond market is much more liquid. Since the 1940s, when Nigeria was still a colony, governments have used bonds extensively to increase their revenue and finance important public projects including roads, airports, railroads, and water infrastructure. As of 2012, Nigeria had issued roughly $1.8 billion worth of bonds. In light of climate change, the Paris Agreement estimates that there will be $60 trillion in bond issuance opportunities between now and 2050, with $3 trillion in Africa by 2030 (FSD Africa and FMDQ, 2022). Given the declining Federation Account revenue, it is anticipated that bonds would gain popularity among local and municipal governments. The pricing mechanism and the maturity of the financial system improve with the use of bonds.

Over time, the number of bonds issued by Nigerian corporations has grown. According to the Debt Management Office of Nigeria [DMO] (2013), the volume of bonds is more than the market capitalisation of stocks and the credit of commercial banks, both in terms of real value and GDP. According to available data from Nigeria's DMO (2015), the primary market capitalisation of bonds increased to N5.683 trillion. This amount is made up of N4792 trillion in bonds issued by the Federal Government of Nigeria [FGN] (84.32%), N638 billion from state governments (11.24%), N227.33 billion from corporations (4%) and N24.95 billion from supranationals (0.44%). Treasury bonds at N296.22 billion and Treasury bills worth N2.815 trillion (35.62%) are among the other outstanding debts. The FGN bonds were the largest at N11.830, followed by FGN Sukuk at N362.56 billion, Treasury bonds at N100.93 billion, FGN Savings bonds at N12.29 billion, and Green bonds at N25.69 billion. By 2020, the total amount of bonds issued had increased to N16.023 trillion (DMO, 2022). In contrast, South Africa's bond market, valued at $51 billion as of 2019, was larger than Nigeria's domestic bond market capitalisation (Bright Africa, 2023). Given this, Nigeria's bond market expansion will supply the $20 billion yearly estimated funding required for the nation's infrastructure development.

A number of changes have been made to the Nigerian bond market with the goal of promoting national development. The structural upgrade was most recently put into place to improve the likelihood of more capital, better the strategic deployment of assets, and supply relevant data for evaluation (DMO, 2024). It is expected that this reform will allow the market to provide a wide variety of financial products that facilitate effective risk management and structuring. The success of the Nigerian bond market in relation to the growth and development of the economy is still a major source of concern, although the notable progress that these changes are anticipated to bring about. However, the lack of a protective framework that guarantees investor trust and protection, as well as a thorough analysis of the variables affecting bond market performance, would make these efforts difficult to accomplish.

The terms "economic growth" and "economic development" are distinguished in the literature. However, the distinction and relationship between the two ideas were not covered in the studies on the influence of the bond market on the growth of the Nigerian economy by Chidi-Okeke et al. (2020), Aniefor and Ndubuisi (2022), and Olaolu and Adagu (2024).It's also crucial to note that previous research on bond market returns and economic growth used primary and secondary market data separately as a stand-in for the overall performance of the bond market rather than the sum of the two exchanges. Therefore, in order to appropriately measure the impact of the expansion of the debt market on the growth of the Nigerian economy, a study utilising the combined bond market data must be conducted.

The purpose of this study is to look into how the growth of the bond market affects

Nigeria's economic expansion. The study specifically seeks to assess how bond volume and the Nigeria Sovereign Bond affect the country's economic expansion.

2. Literature Review

The Development of Bond Market in Nigeria

As a framework for the trade of long-term securities, the Nigerian fixed income market has grown alongside the securities market. Although the capital market has long been dominated by the trading of stocks and equities, the debt/bond market—the most visible fixed income market in Nigeria—has changed in response to the country's economic trajectory, where governments and corporations alike must issue debt instruments to raise funds for their capital projects due to declining revenue from the sale of primary raw materials for the government and declining profits for capacity expansion due to low patronage for corporations. From the first sale in 1946 to independence in 1960, the colonial government issued bonds to finance public projects (Uduanu, 2019). Later, a variety of macroeconomic problems and political situations hindered the development of a domestic savings culture that would have guaranteed a healthy debt and bond market in the nation. Therefore, the Central Bank of Nigeria (CBN) and external borrowings were used to finance the government deficit (Uduanu, 2019; Adebayo & George, 2019). Nigeria is currently experiencing a debt crisis as a result of the substantial expansion of its foreign debt profile over time, which is mostly the result of institutional lenders. The Paris Club and the London Club of creditors, the two main international lending organisations, were able to successfully negotiate a refinance arrangement with the Federal Government of Nigeria in 2005. An important milestone was reached when this arrangement resulted in a lump sum payment and the cancellation of the remaining debt. Since then, by institutionalising the management structure, the Nigerian government has improved its debt management system. As a result, the Ministry of Finance's Debt Management Office, established in 2000, was reinforced to supervise debt-related issues (Nwiado & Deeko, 2013).

As the market develops into a different source of funding for businesses and the federal and state governments, it also became a major source of capital accretion in the nation through international portfolio investments and another source of investments for individual and institutional investors. To put it simply, Nigerian governments have issued a range of debt and bond instruments to fund capital projects. These include bonds issued by the federal government, state governments, and the Eurobond, which are all issued in local currencies.

With regulations and oversight from FMDQ, a well-structured exchange, the Nigerian bonds market has evolved into a sophisticated and well-regulated environment. Over the past ten years, the average annual turnover has been approximately N177 trillion, and approximately $67 billion in derivatives contracts have been cleared (FMDQ, 2025).

Federal Government of Nigeria Bond

In order to raise money for government deficits and infrastructure needs, as well as to refinance and restructure current short-term instruments into long-term bonds, the Nigerian government issued a series of financial obligations known as Federal Government of Nigeria Bonds, or FGN Bonds (DMO, 2024). As a result, the bonds are being issued with the intention of expanding the debt market's growth in order to provide better chances for investment and saving. Additionally, this program seeks to ensure that cash and liquid assets are consistently available in Nigeria's debt market (DMO, 2023). Because they are guaranteed by the full faith and credit of the Federal Republic of Nigeria, FGN bonds are thought to be the safest bond investments available in Nigeria.

Economic Growth

The accumulation of a nation's entire economic production is a prerequisite for economic growth (Shearer, 1961/2007; Reserve Bank of Australia, 2024). In relation to other economic indicators, such as interest rates, inflation rates, foreign exchange rates, and others, a rise in the value of economic activities produced by a nation's citizens over a given time period (typically expressed in annual gross domestic product, or GDP) indicates that the nation's economy is doing well and will therefore yield a profit for investors. Economic development—new investments, innovation, and the replacement of outdated technology—as well as improved living standards and a higher standard of living for the populace are frequently the results of a country's consistent increase in production output, or

economic growth (Roser, 2021). Nigeria's economic expansion has been accompanied by ups and downs, frequently linked to the price of extractive resources. Economic productivity peaked during periods of high oil and gas production, but overall productivity typically fell during periods of low global extractive market activity (Yakub, 2008).

The Role of the Bond Market in Nigeria's Economic Development

The funding of Nigeria's vital infrastructure demonstrates the debt market's contribution to the nation. Road projects, particularly federal government roadways in numerous states, have been financed by Eurobonds and Nigerian federal government bonds. Similarly, several state governments have issued bonds to fund public works projects including water supply dams, highway networks, and overhead bridges. In particular, the federal government has financed major highways around the nation, like the Lagos-Ibadan motorway, using *Sukuk* a faith-based Islamic tool.

The growth of the bond market has also affected Nigeria's financial system's liquidity through the trading of different products on the FMDQ exchange. As a result, Nigerian governments and corporations have generated money to explicitly fund the construction of roads, factories, etc.

Financial Market Dealers Quotation (FMDQ)

In Nigeria, bond issuing and trading take place on the Financial Market Dealers Quotation, or FMDQ. It manages all bond transactions in the nation and serves as the exchange for the primary issuance and secondary trading of debt instruments. Its transformation from an OTC trading platform to a fully regulated bond market approved by the SEC is consistent with its leading position in creating a safe, effective securities market that is on par with the best in the world. Agency bonds issued by government agencies, corporate bonds issued by corporations and conglomerates, supranational bonds floated by multiple sovereign governments, subnational bonds issued by states and local authorities, Eurobonds issued in another country's currency, short-term bonds with a tenor of one year to no more than three years, and *sukuk*, a faith-based Islamic finance instrument, are among the instruments offered by both public and private institutions (FMDQ, 2024).

With instruments including bonds, foreign exchange, treasury bills, repurchase agreements, OMO bills, CBN special bills, derivatives, and others, the overall debt market aggregate as of August, 2024, was N279,494,163 million.

Theoretical Review

The literature has stressed the role that financial development plays in economic growth according to the growth hypothesis. Thus, the Harod-Domar growth theory and McKinnon Shaw theory serve as the theoretical underpinnings for this investigation. In essence, the Goldsmith-McKinnon Shaw theory was developed in the 1970s to help illustrate how financial expansion, as opposed to financial repression, can promote growth. According to Greenwood and Jovanovic (1990), there is a basic connection between financial intermediation and economic progress, which is consistent with the McKinnon Shaw theory of development. According to Jacoby (1994), the financial system is a useful tool for encouraging the development of human capital. The Goldsmith-McKinnon Shaw theory serves as the foundation for this study's investigation into how bond market development affects Nigeria's economic expansion.

Furthermore, the Harod-Domar growth theory (Harrod & Domar, 1946) focusses on the importance of capital importation and accretion in promoting economic growth. The concept states that due to the underdeveloped mechanism for capital accumulation (capital markets), growth in developing economies with excess labour capacity is hindered by a lack of investment capital. The amount of capital invested in an economy and the productivity of that capital have an impact on the rate of economic growth. The hypothesis has been widely used in literature, such as Le-Van and Tran-Nam (2023) and Dumo et al. (2023). Thus, the theoretical context for our investigation is provided by these theories.

Empirical Literature

Ezuem and Ohwojero's (2024) study focusses on the impact of government bonds, treasury bills, and interest rates on the success of Nigeria's securities market capitalisation. The study's findings demonstrate that federal government bonds had a major positive impact on

Nigeria's capital market. In various emerging economies, Uguanyi et al. (2022) looked into the connection between economic growth and bond market development. According to their findings, during the period under review, economic growth had a negative reaction to the corporate bond index and commercial lenders' advances to private businesses, but a positive reaction to some proxies of bond market evolution, such as inflation, trade openness, and the total value of government bonds. Vincent et al. (2023) examined the impact of shares and bonds on the development of the Nigerian capital market in a related study. The findings show that both kinds of capital market instruments have a major impact on the capital market's development.

Petlele and Buthelezi (2025) looked into the complex relationship between government bonds, bond yields, and the expansion of the South African economy. The study analysed data from 1986 to 2024 using the Structural Vector Auto regression (SVAR) technique. The study's findings showed that disruptions to short-term government bonds first result in slower GDP growth due to the crowding out effect. On the other hand, growth has a W-shaped effect when mid-term government bond fluctuations occur. Additionally, although shocks to long-term bond yields cause an initial decline followed by a recovery in growth, changes in short-term bond yields cause a large decline in GDP. Using the GARCH (1'1) and GARCH-M (1'1) models, Fatmawatie et al. (2024) investigated the impact of both local and global macroeconomic factors on the yield on Indonesian government bonds. The findings show that interest rates significantly impact 10- and 15-year bond yields. Additionally, the yields of 5- and 10-year notes are significantly impacted by crude oil prices, whilst the yields of 15-year tenor bonds are positively impacted by Federal Reserve interest rates. Conversely, inflation has no effect on bond yields of any tenor, foreign currency reserves have a negative impact on bond yields of all tenors, and the exchange index has a negative impact on long-term bond yields.

According to Ugbam et al. (2023), who evaluated the possible relationship between the growth of the bond market and economic expansion in emerging markets, bond development indicators, the government bond market, corporate bond capitalisation, and bond yields are all positively connected with economic growth. In a similar vein, Pradhan et al. (2020) conducted exploratory analysis on the influence of financial markets, particularly the stock and bond markets, on economic growth. The study used the panel vector auto-regression analytical technique to test data from a set of developed countries. The results showed that inflation in two financial markets and real interest rates had a long-term impact on economic growth. Previously, Oke et al. (2021) used the ARDL estimate technique to assess the relationship between Nigeria's economic growth and the debt market's development between 1986 and 2018. According to the research's findings, government bonds had a favourable but negligible impact on Nigeria's economic growth, whereas commercial bond offerings, bond trading size, and Nigerian sovereign bonds all showed positive relationships. These studies demonstrate the role of debt instruments in promoting capital development for economic growth across a range of jurisdictions and time periods, as well as the importance of the bond market in a market economy. However, the scope of the studies is restricted to variables in both advanced and emerging markets, such as trade openness, bond market capitalisation, bond market yield, etc. The total amount of bonds issued by governments, corporations, and Nigerian sovereign bonds is the main topic of this study.

3. Methodology

Ex-post facto research design is used. The CBN *Statistical Bulletin for* 2021 and the SEC for the same year, which covers the years 1991–2021, are two sources of data. The study's model was modified from Okeet al.'s (2021) investigation, which assessed how the emergence of the bond market affected Nigeria's economic expansion. Here is how the model is expressed: f(GBOND, CBOND, BYID, VBTD) = RDGPThe answer is yes.(1) where GBOND stands for Government Bond, CBOND for Corporate Bond, BYID for Nigeria Sovereign Bond, VBTD for Value of Bond Traded, and RGDP for Real Gross Domestic Product.

This modified model is expressed as follows:

RDGP = *f*(GBOND, CBOND, BYID, VBTD)….(1)

Where: RGDP represents Real Gross Domestic Product, GBOND denotes Government Bond, CBOND refers to Corporate Bond, BYID signifies Nigeria Sovereign Bond, and VBTD indicates Value of Bond Traded.

This adapted model is stated below:

GDP = *f*(BDV, NSB)……. (2)

Where: GDP denotes Gross Domestic Product, BDV indicates Bond Volume, and NSB connotes Nigerian Sovereign Bond. The equation is given below in an econometric form:

$GDP = \beta_0 + \beta_1 BDV + \beta_2 NSB + \varepsilon_t$…… (3)

Where: Where: GDP refers to Gross Domestic Product, BDV connotes Bond Volume, NSB is Nigerian Sovereign Bond,β_0 denotes Intercept; $\beta_1 - \beta_2$are the Coefficient of the regressors; ε_t is the Stochastic error term. The VECM model is stated below:

$\Delta LGDPt = \beta_0 + \Sigma^{p}_{i=1}\beta_{1i}\ \Delta LBDV_{t-i} + \Sigma^{q}_{i=1}\beta_{2i}\ \Delta LNSB_{t-1} + \lambda ECM_{t-1} + \varepsilon_t$……...(4)

Where: GDP = Gross Domestic Product; BDV = Bond Volume; NSB= Nigerian Sovereign Bond; ECM = residual adjustment;β_0 = Interceptβ_{1i}– β_{2i}= coefficients of the estimates, ε = Stochastic error term

To evaluate the relationships inside the model, the study used descriptive statistics in combination with the Vector Error Correction Mechanism (VECM), Johansen's cointegration approach, and the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. Because of its exceptional ability to analyse time series distribution—more especially, to assess the series' stationarity—the ADF test was chosen. Additionally, the non-parametric Phillips-Perron unit root test was used to reduce the possibility of missing observations. The study also looked at heteroscedasticity and serial correlation to evaluate the model's suitability.

4. Data Analysis

The results of the tests conducted during the research are shown in this section.

Table 1: Descriptive Statistics

	GDP	BDV	NSB
Mean	37550.91	258.7317	45.21951
Median	8234.494	261.0000	34.00000
Maximum	176075.5	310.0000	95.00000
Minimum	139.3105	188.0000	9.000000
Std. Dev.	50434.86	28.64177	31.31973
Skewness	1.284324	-0.568510	0.528832
Kurtosis	3.459285	3.250880	1.636890
Jarque-Bera	11.63186	2.316078	5.085234
Probability	0.002980	0.314101	0.078660
Sum	1539587.	10608.00	1854.000
Sum Sq. Dev.	1.02E+11	32814.05	39237.02
Observations	41	41	41

Source: Researchers' Computation (2025)

The descriptive data are shown in Table 1. The series averages are estimated by the mean. The GDP, BDV, and NSB mean values are 37550.91, 258.7317, and 45.21951, respectively, according to Table 1. The degree of variation in the series is measured by the standard deviation. The standard deviations for GDP, BDV, and NSB are 50434.86, 28.64177, and 31.31973, respectively. In contrast, BDV and NSB are grouped around the mean, indicating that GDP is distributed.

Skewness quantifies how much a given variable's distribution deviates from a symmetrical distribution, like a normal distribution. A normal distribution is denoted by zero skewness, whereas lengthy right and left tails are implied by positive and negative skewness, respectively. The results shown in Table 1 show that BDV has a skewness coefficient of -0.568510, indicating that the series has a long-left tail, whereas GDP and NSB have skewness coefficients of 1.284324 and 0.528832, respectively, indicating that they are tailed to the right. According to the tables, NSB is flat or platykurtic because its Kurtosis coefficient, at 1.636890, is less than 3. However, GDP and BDV are categorised as leptokurtic since their kurtosis coefficients are greater than three, at 3.459285 and 3.250880, respectively.

The Jarque-Bera statistics use standard frequency to evaluate the difference between skewness and kurtosis of the data. GDP does not follow a normal distribution, according to the Jarque-Bera statistic, as shown by its probability values of 0.002980, which are less than 5%, although BDV and NSB did, with probability

values of 0.314101 and 0.078660, respectively, which are more than 5%.

Table 2: Correlation Matrix

	LBDV	LNSB
LBDV	1	
LNSB	-0.29	1

Source: Researchers' Computation (2025)

The correlation estimates between the variables are shown in Table 2. To determine the possibility of multicollinearity in the explanatory factors, the correlation test is performed. There is no multicollinearity in the series, demonstrating their independence from one another, according to the data, which also demonstrated that the series are negatively connected with the constant between LBDV and LNSB, which is -0.29.

Table 3: ADF Unit Root Test

Unit Root Test Results Table (ADF)						
Null Hypothesis: the variable has a unit root						
At Level						
		LGDP	LBDV	LNSB		
With Constant	t-Statistic	-1.3946	-2.5706	-1.9905		
	Prob.	0.5753	0.1074	0.2897		
		n0	n0	n0		
At First Difference						
		d(LGDP)	d(LBDV)	d(LNSB)		
With Constant	t-Statistic	-3.4595	-6.4504	-3.7894		
	Prob.	0.0147	0.0000	0.0063		
		**	***	***		

Source: Researchers' Computation (2025)

Table 3 displays the outcomes of the unit root testing. According to the table, at order zero I(0), none of the variables in the model are stationary. Due to the unsystematic nature of the series, GDP, BDV, and NSB are all stationary at initial differences. These can be seen by comparing the critical values (total figures) of the test statistics at the 5% level with the observed figures (total numbers) of the ADF test statistics. As a result, the hypothesis that there was no stationarity was rejected. The dynamic function specification of the variables is not inappropriate because it could lead to erroneous regression because the variables are stationarity at order one [I(1)]. The use of the Vector Error Correction Model (VECM) technique for estimate is justified by the stationarity of the series at first difference. Consequently, the VECM technique was used for the study's estimation.

Table 4: Optimal Lag Structure

Lag	LogL	LR	FPE	AIC	SC	HQ
0	17.85588	NA	9.18e-05	-0.781888	-0.652605	-0.735890
1	194.3300	315.7958	1.37e-08	-9.596317	-9.079184*	-9.412325
2	207.3066	21.17231*	1.12e-08	-9.805610*	-8.900629	-9.483625*
3	216.0318	12.85824	1.17e-08*	-9.791149	-8.498318	-9.331170
* indicates lag order selected by the criterion						

Source: Researchers' Computation (2025)

The study's ideal lag structure is shown in Table 4. It includes the latency suggestions based on the various information requirements. The study adopts and uses lag 3 as recommended by the Akaike information criterion for analysis.

Table 5: Johansen Cointegration

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.472171	36.55429	29.79707	0.0072
At most 1	0.257939	12.27291	15.49471	0.1443
At most 2	0.024346	0.936586	3.841465	0.3332
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.472171	24.28137	21.13162	0.0174
At most 1	0.257939	11.33633	14.26460	0.1382
At most 2	0.024346	0.936586	3.841465	0.3332

Source: Researchers' Computation (2025)

Table 5 above displays the results of the Johansen co-integration test. At the 5% significance level, the p-value associated with the Trace test (0.0072) shows that there is at least one co-integrating equation among the variables. Furthermore, the conclusion that there is at least one co-integrating equation among the variables is further supported by the p-value of the maximal Eigenvalue at the 5% significant level (0.0174). Accordingly, the findings show a positive correlation between the performance of the bond market and the long-term expansion of the Nigerian economy.

Table 6: Normalized Co-integrating Coefficients

1 Cointegrating Equation(s):		Log likelihood	209.8954
Normalized cointegrating coefficients (standard error in parentheses)			
LGDP	LBDV	LNSB	
1.000000	-58.46639	-1.516373	
	(9.80252)	(1.10891)	

Source: Researchers' Computation (2025)

The estimations of the study's standardised cointegration coefficients are shown in Table 6. According to the table, BDV has a positive impact on GDP (58.46639).Therefore, a unit increase in BDV will eventually result in a 58.46639 increase in GDP. Similarly, the findings show that NSB (1.516373) has a positive impact on GDP.As a result, over time, GDP will increase by 1.516373 in response to a 1 unit increase in NSB. However, with a 5.96 t-statistic value, only BDV has a statistically significant impact on GDP, whereas NSB's effect is negligible (1.36 t-statistic value).

Table 7: Vector Error Correction Model

Error Correction:	D(LGDP)	D(LBDV)	D(LNSB)
CointEq1	-0.022822	0.011216	0.067311
	(0.00655)	(0.00440)	(0.01873)
	[-3.48502]	[2.55055]	[3.59392]
D(LGDP(-1))	0.251219	0.154258	0.686248
	(0.15751)	(0.10577)	(0.45050)
	[1.59493]	[1.45839]	[1.52332]
D(LGDP(-2))	0.031596	0.176617	0.567529
	(0.16324)	(0.10962)	(0.46687)
	[0.19356]	[1.61121]	[1.21560]
D(LGDP(-3))	-0.406744	-0.026843	0.367289
	(0.16000)	(0.10744)	(0.45760)
	[-2.54222]	[-0.24983]	[0.80264]
D(LBDV(-1))	-0.007244	0.027784	0.120645
	(0.34541)	(0.23195)	(0.98791)
	[-0.02097]	[0.11978]	[0.12212]
D(LBDV(-2))	0.337489	0.060731	1.058302
	(0.30223)	(0.20296)	(0.86441)
	[1.11666]	[0.29923]	[1.22431]
D(LBDV(-3))	-0.711727	-0.012786	-0.466699
	(0.30951)	(0.20784)	(0.88522)
	[-2.29953]	[-0.06152]	[-0.52721]
D(LNSE(-1))	-0.020831	0.073376	0.509664
	(0.06434)	(0.04321)	(0.18402)
	[-0.32375]	[1.69823]	[2.76954]
D(LNSE(-2))	-0.190130	0.023891	0.259267
	(0.07419)	(0.04982)	(0.21219)
	[-2.56280]	[0.47954]	[1.22189]
D(LNSE(-3))	-0.083551	0.038516	0.276603
	(0.08011)	(0.05379)	(0.22911)
	[-1.04298]	[0.71599]	[1.20727]
C	0.091771	-0.020187	-0.131411
	(0.01931)	(0.01297)	(0.05522)
	[4.75311]	[-1.55696]	[-2.37972]
R-squared	0.642006	0.405449	0.573762
Adj. R-squared	0.504316	0.176776	0.409824
Sum sq. resids	0.031099	0.014024	0.254389
S.E. equation	0.034585	0.023225	0.098915
F-statistic	4.662695	1.773051	3.499878
Log likelihood	78.50722	93.24066	39.62571
Akaike AIC	-3.649039	-4.445441	-1.547335
Schwarz SC	-3.170118	-3.966519	-1.068414
Mean dependent	0.081783	0.004346	-0.000559
S.D. dependent	0.049123	0.025597	0.128757
Determinant resid covariance (dof adj.)		5.84E-09	
Determinant resid covariance		2.03E-09	
Log likelihood		212.8238	
Akaike information criterion		-9.558042	
Schwarz criterion		-7.990662	
Number of coefficients		36	

Source: Researchers' Computation (2025)

Table 7 above shows the outcomes of the VECM estimates. The endogenous and exogenous variables have a short-term connection, as indicated by the CointEq1 coefficient of -0.022822. This suggests that the current adjustment speed is about 2.3%, which corrects

for deviations from the long-term stability in the past. As a result, an increase in GDP at lag 1 causes GDP to increase by 0.251219 in the current period, indicating a positive correlation between GDP at the current time and GDP at the previous period. The table also demonstrates that BDV has a negative effect of 0.007244 on GDP, meaning that for every unit increase in BDV, GDP will decrease by 0.007244 in the short term. On the other hand, NSB has a 0.020831 positive impact on GDP. This implies that a unit increase in NSB will result in a short-term GDP growth of 0.020831. According to the R2 number of 0.642006, endogenous variables account for 64.20% of the model's influence on GDP, with other short-term factors accounting for the remaining 35.80%. The model is fit, as indicated by the F-statistic coefficient of 4.662695.

Table 8: Serial Correlation

Null hypothesis: No serial correlation at lag h						
Lag	LRE* stat	Df	Prob.	Rao F-stat	df	Prob.
1	10.01939	9	0.3489	1.139037	(9, 61.0)	0.3501
2	11.68682	9	0.2315	1.346370	(9, 61.0)	0.2327
3	10.94334	9	0.2796	1.253261	(9, 61.0)	0.2808
*Edgeworth expansion corrected likelihood ratio statistic.						

Source: Researchers' Computation (2025)

The results of the serial correlation test are shown in Table 8. There is no autocorrelation between the explanatory variables, according to the X^2 p-value of 0.2808.As a result, autocorrelation is absent from the model.

Table 9: Multicollinearity Test

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
LBDV	5.629218	2551.634	1.089649
LNSE	0.130685	25.28701	1.089649
C	34.84749	2718.256	NA

Source: Researchers' Computation (2025)

The results of the multicollinearity test estimated using variance inflation factors (VIF) are shown in Table 9.Since the skewed VIF is less than 10, the results showed that all the variables are independent of one another. As a result, the study makes the assumption that the independent variables can be regressed on GDP.

Table 10: Heteroscedasticity Test

F-statistic	3.566163	Prob. F(2,38)	0.0381
Obs*R^2	6.479288	Prob. X^2	0.0392
Scaled explained SS	2.469061	Prob. X^2	0.2910

Source: Researchers' Computation (2025)

The heteroscedasticity test estimate is displayed in Table 10. Since the chi-square p-value of 0.2910 is greater than the 5% significance level, it suggests that the model is homoscedastic.

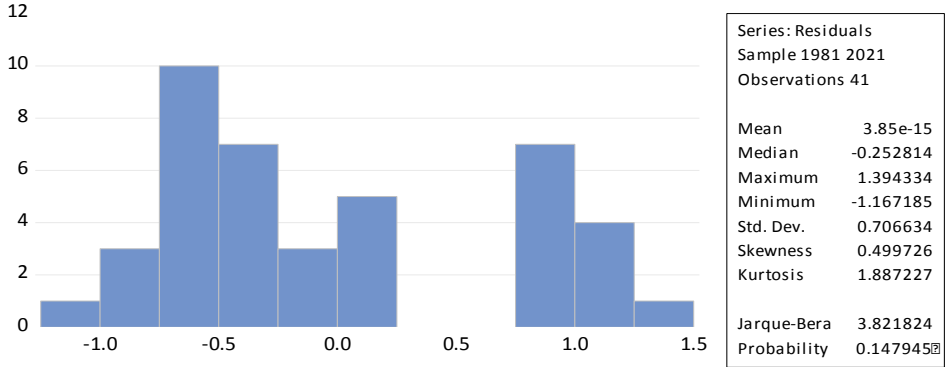


Figure 1: Normality Test
Source: Researchers' Computation (2025)

Figure 1's findings for the normality diagnostics test show a P-value of 0.147945 and a Jarque–Bera statistic of 3.821824. The analysis concludes that the null hypothesis, according to which the residuals show a symmetric distribution, should not be rejected because this p-value is greater than the 0.05 cutoff.

Test of Hypotheses

The normalized cointegrating coefficients are used to test the hypotheses.

Table 11: Long Run Effects

1 Cointegrating Equation(s):		Log likelihood	209.8954
Normalized cointegrating coefficients (standard error in parentheses)			
LGDP	LBDV	LNSB	
1.000000	-58.46639	-1.516373	
	(9.80252)	(1.10891)	

Source: Researchers' Computation (2025)

Hypothesis One: Bond volume does not have strong influence on GDP in Nigeria.

The absolute value of the t-statistic, which is 5.96,exceeds 1.96. Hence, the study determines that over the long term, bond volume exerts a significant and positive influence on the gross national output in Nigeria. Therefore, Hypothesis One is rejected.

Hypothesis Two: Nigerian sovereign bond does not exert significant impact on GDP in Nigeria.

The absolute value of the t-statisticis 1.36 is less than 1.96. Thus, the study determines that over the long term, the Nigerian sovereign bond does not exert a significant influence on the gross national productivity in Nigeria. Therefore, the Hypothesis Two is not rejected.

Discussion of Findings

The research's findings suggest that bond volume has a positive impact on economic output. This suggests that if more bonds are issued, Nigeria's economy will grow faster. It implies that an increase in bond volumes is good for the economy. The outcome is consistent with the findings of Pradhan et al. (2020) and Ugbam et al. (2023), which demonstrated that the capitalisation of corporate bonds, government bonds, and bond yields are positively correlated with economic growth. Furthermore, the results regarding the impact of Nigerian sovereign bonds indicate that they have a positive effect on GDP growth, demonstrating that an increase in Nigerian sovereign bonds has an impact on the expansion of productivity in the Nigerian economy. Once more, the findings are consistent with those of Ugbam et al. (2023), who demonstrated a positive correlation between Nigeria's economic growth and the capitalisation of corporate and government bonds as well as bond yields.

5. Conclusion and Recommendations

The findings of this study addressed the research questions and achieved the study's main goal, which was to evaluate how Nigeria's economic growth is affected by bond market performance. Therefore, the analysis comes to the

conclusion that bond volume has a favourable impact on the performance of the Nigerian economy. The study's findings support the a priori estimate. Therefore, a rise in bond volume boosts Nigeria's economic performance. The performance of the economy is positively and statistically insignificantly impacted by Nigerian sovereign bonds. Once more, the findings support the a priori estimate, which finds a clear correlation between the rise in the issue of Nigerian government bonds and the achievement of high economic productivity. This suggests that a rise in sovereign bonds contributes to increased economic productivity.

The report makes a number of recommendations in light of the findings to help the Nigerian economy take advantage of the bond market: The government must to put plans in place to create a strong bond market and guarantee that investors would find it appealing. The government should ensure that the bond market is investor-friendly by putting policies in place intended to create a bond market and encourage its growth. Federal, state, and local governments should issue bonds to finance long-term infrastructure projects rather than relying too much on Federation Account allocations and short-term funding sources in order to promote financial stability in the country.

The government should encourage the issuance of more bonds in order to boost the bond market's capitalisation and maximise its efficacy. This would boost the amount of money raised and support economic growth.

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